



Yokohama Field Service Management

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Table of Contents



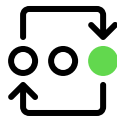


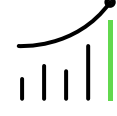

Field Service Management.....	6
Exploring Field Service Management.....	7
Field Service Management Guided Setup.....	11
Integrated work order entry.....	12
Optimizing Scheduling and Dispatching operations.....	16
Dispatcher Workspace.....	23
Capacity and Reservations Management.....	25
Field Service Agent Efficiency.....	27
Field Service Crew Operations.....	28
Field Service Territory Planning.....	29
Mobile experience for Field Service Management.....	31
Playbooks for Field Service Management.....	34
Field Service Marketplace.....	35
Inventory management in Field Service Management.....	35
Linear asset support.....	35
Monitoring and analytics for Field Service Management.....	36
Planned Work Management.....	38
Workforce Optimization for Field Service.....	38
Field Service Management workflow examples.....	39
Virtual Agent for Field Service Management.....	44
Field Service Quality Management.....	45
Configuring Field Service Management.....	45
Planning your Field Service Management implementation.....	47
Activate Field Service Management.....	61
Setting up your workforce.....	73
Setting up work orders and tasks.....	172
Setting up inventory and asset management.....	246
Setting up CSM/FSM Configurable Workspace.....	252
Setting up a Field Service scheduling method.....	302
Setting up Field Service Mobile Agent.....	400
Integrating Field Service Management with other applications.....	429
Setting up FSM reports and analytics.....	449
Using Field Service Management.....	459
Prepare work orders.....	459
Manage workforce.....	517
Scheduling and dispatching work order tasks to agents.....	574
Manage appointments.....	657
Customer self service.....	666
Complete work orders on the web interface.....	668

Complete work orders on Mobile Agent.....	703
Analytics and reporting for Field Service Management.....	763
Use the Field Service Management Overview dashboard.....	763
Monitoring operations in real time.....	765
Contractor dashboard.....	766
Contractor dashboard in the configurable workspace.....	769
Field Service Territory Capacity Analytics dashboard.....	771
Scheduling Health dashboard.....	774
Using the Field Service Safety dashboard.....	777
Field Service Territory Performance Analytics dashboard.....	780
View work order trends topics.....	782
Field Service Management reference.....	782
Components installed with Field Service Management.....	782
Section 508 compliance features.....	818
Work order task fields in the Field Service Contractor application.....	818
Smart Assessment template fields.....	819
Components installed with additional plugins for Field Service Management.....	819
Schedule Optimization components.....	887
Schedule Optimization travel estimate providers.....	901
Intra-day schedule automation flows and subflows.....	902
Task assignees table for crew members or equipment.....	903
Calendar event icons in Dispatcher Workspace.....	903
Map iconography in Dispatcher Workspace.....	904
Linear Assets Support properties.....	905
Advanced resource filter tables.....	906
Learn about appointment availability settings for an application configuration.....	907
Learn about task assignment methods for an application configuration.....	908
Data model for denormalized tables in Field Service Management.....	909
Now Assist for Field Service Management (FSM).....	911
Exploring Now Assist for Field Service Management (FSM).....	912
Configure Now Assist for Field Service Management (FSM).....	913
Skill inputs for Now Assist for Field Service Management (FSM).....	915
Configure the Generate closure notes UI action.....	916
Configure the KB generation skill.....	917
Customizing a skill.....	920
Create an Assistant for Field Service Management.....	928
Using Now Assist for Field Service Management (FSM).....	930
Generate a work order task summary.....	930
Generate work order task closure summaries in the Mobile Agent application.....	930
Generate a knowledge article from the CSM/FSM Configurable Workspace and classic environment with Now Assist.....	933
Summarize a Sidebar discussion.....	935

Summarize a record using Now Assist in Virtual Agent.....937
Use conversational search for technician support.....938

Field Service Management

The ServiceNow® Field Service Management application enables you to manage work orders and related tasks, resources, skills, assets, and locations. Use this application to dispatch work order tasks and agents to the customer location for performing any kind of field work, such as install, repair, or maintain equipment.

<p>Explore</p>  <p>Learn about how managers, dispatchers, technicians, customers, and agents use Field Service Management.</p>	<p>Configure</p>  <p>Plan and configure your implementation.</p>	<p>Integrate</p>  <p>Extend Field Service Management capabilities by integrating with other applications.</p>
<p>Use</p>  <p>Manage work tasks performed on location. Collaborate between operations, field resources, and customers through mobile channels.</p>	<p>Reference</p>  <p>Get details about components like tables, roles, properties, and fields.</p>	<p>Analyze</p>  <p>Access preconfigured dashboards with actionable data visualizations to monitor and improve your service.</p>
	<p>Automate</p>  <p>Use Now Assist for FSM to enhance user productivity and efficiency through proactive experiences using generative AI.</p>	

Additional resources

- Learn more about what's new and changed in this release at [Field Service Management release notes](#).
- Log into your ServiceNow account and find additional information about implementing and deploying Field Service Management features at [Now Create](#).
- Connect with other Field Service Management users in the [FSM community forum](#).
- Work with an implementation specialist to streamline your Field Service Management setup process. To learn more, see the [Customer Success Center](#).
- Sign up for the [ServiceNow Field Service Management training program and certification](#) to learn about core Field Service Management functionality and release-specific features.
- For information on how to begin setting up Field Service Management, see [Configuring Field Service Management](#).

Exploring Field Service Management

Use the Field Service Management application to manage work requests that are performed on location by field service agents. Whether you are starting or expanding your implementation of Field Service Management, learn more about available features to help create a seamless experience for your dispatchers, managers, and agents to resolve issues and fulfill requests.

Field Service Management overview

Problems that require on-site services from field technicians must be addressed and resolved fast. The costs are high if you're attempting to resolve complex on-site issues using disparate, unconnected systems with little or no automation or visibility.

With the Field Service Management application, you can get more tasks resolved faster with applications that can streamline task workflows. Help your field service teams to proactively address issues and to resolve them quickly. With Field Service Management, connect teams, processes, and systems to find the root cause of issues and resolve them in a timely manner. Empower your technicians with access to all of their tasks using the Field Service mobile application, which can be used online or offline.

Note:

You can also [View and download the full infocard](#) for a highlight of Field Service Management features.

Field Service Management users

Users

User	Description
Administrator	Configure the Field Service Management application to automate the process of assigning work order tasks to field technicians and make it ready for use.
Initiator	Create a new work order or can create a work order from other record types, such as problem, incident, change, or project task.
Qualifier	Review and qualify work orders to ensure that the work order tasks are created.

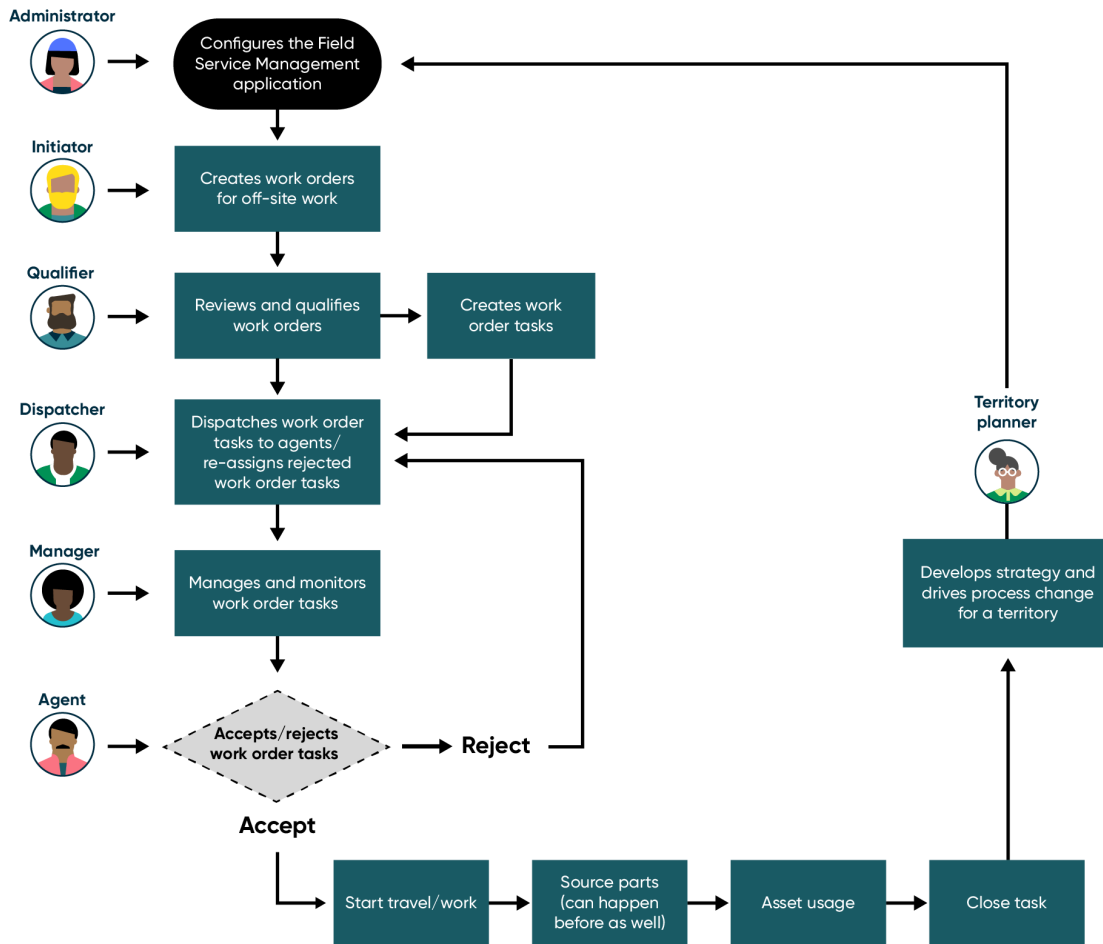
Users (continued)

User	Description
Dispatcher	<p>Assign the work order tasks to the most appropriate and available agents. Dispatcher can also track agent's travel and work time, part requirements, and asset usage.</p> <p>Dispatchers are a part of the Field Service Management team, who manages the field teams and customer experience simultaneously to achieve positive outcome for the organization.</p>
Manager	<p>Manage and monitor the progress of work order tasks. If an agent rejects the task, you can reassign the tasks to another agent.</p>
Agent	<p>Travel to the customer location with the required parts and skills to work on the assigned task.</p>

Field Service Management workflow

The following example shows a sample Field Service Management end-to-end workflow describing different roles and stages handled by these roles starting from

creating the work order and related task through the completion of the work order task.



1. As an administrator, you can configure the Field Service Management application to automate the process of assigning work order tasks to field technicians and make it ready for use.
2. When the application is ready to use, the initiator creates a new work order or can create a work order from other record types, such as problem, incident, change, or project task.
3. Then qualifier reviews and qualifies work orders to ensure that the work order tasks are created.
4. The qualified work orders then goes to the dispatcher queue so that dispatcher can assign the work order tasks to the most appropriate and available agents. Dispatcher can also track agent's travel and work time, part requirements, and asset usage.

Dispatchers are a part of the Field Service Management team, who manages the field teams and customer experience simultaneously to achieve positive outcome for the organization.

5. The manager manages and monitors the progress of work order tasks. If an agent rejects the task, you can reassign the tasks to another agent.
6. After accepting the work order task, the agent travels to the customer location with the required parts and skills to work on the assigned task.

Field Service Management benefits

Field Service Management provides the following benefits:

Field Service Management benefits

Benefit	Feature	Users
Simplify setup using low-code plugins and guided setup.	Guided setup	Administrator
Optimize task scheduling, auto-assign tasks, and adapt to changing conditions.	Schedule Optimization	Administrator
Automatically capture critical data when creating a work order from a case, incident, problem, change request, or project task record.	Integrated work order entry	Initiator
Empower customers using Field Service Management - Customer Experience to track en-route agent location and arrival time.	Customer Experience in Field Service Management	Initiator
Find and analyze work orders with similar underlying issues using Predictive Intelligence for Field Service Management.	Work order insights powered by Predictive Intelligence	Manager
Make the most of your resources. Schedule work for technicians dynamically based on capacity and tasks.	Capacity and Reservations Management	Manager
Give dispatchers everything they need in one place to make smart and fast scheduling decisions.	Dispatcher Workspace	Dispatcher
Automatically assign tasks to available field service agents with the right skills and equipment.	Dynamic scheduling	Dispatcher
Improve agent utilization by recommending the best available tasks to fill gaps in the agent's schedule.	Intelligent Task Recommendation	Dispatcher
Support complex work for technician crews.	Field Service Crew Operations	Dispatcher
Optimizes contractor management, improves communication, and streamlines task allocation processes.	Field Service Marketplace	Dispatcher
Efficiently schedule and manage the resource utilization for work order task based on different geographic regions.	Field Service Territory Planning	Territory Planner
Enable technicians with an intuitive, native Mobile Agent application that enables them to quickly view and record information.	Mobile experience for Field Service Management	Field Service Agent
Achieve seamless visibility and task resolution for complex workflows across teams and business units.	Playbooks for Field Service Management	Field Service Agent
Track and manage the inventory between stockrooms.	Manage inventory in Field Service Management	Field Service Agent

Field Service Management benefits (continued)

Benefit	Feature	Users
Enable agents to generate work order task summaries so that they can create notes faster and with more detail.	Now Assist for Field Service Management (FSM)	Field Service Agent
On-board contractor teams for outsourcing work order tasks and ensuring that service level agreements are met.	Field Service Contractor Management	Manager
Monitor and enforce compliance with environment or health protocols.	Emergency Exposure Management	Manager

What to explore next

- [What is field service management \(FSM\)?](#)
- [Configuring Field Service Management](#)
- [Using Field Service Management](#)
- [Analytics and reporting for Field Service Management](#)
- [Field Service Management reference](#)

Field Service Management Guided Setup

Streamline setting up Field Service Management with guided setup.

Use guided setup to step through the initial Field Service Management configuration. Guided setup assists you with planning the roll-out of the product and performing the basic configuration. Guided setup organizes configuration activities into categories and helps you track your progress.

Related topics[Configuring Field Service Management using Guided Setup](#)[Planning your Field Service Management implementation](#)**Integrated work order entry**

Work orders in Field Service Management store information about requested work, including customer names and addresses, locations where work is to be performed, and any associated configuration items. Work orders can include one or more tasks that contain specific details about the work to be performed, such as required agent skills or part requirements.

Video showing example for Field Service in CSM Agent Workspace.

The above video shows how you can create a work order from a Customer Service Management case.

Work order templates automatically populate the work order with work instructions, tasks and parts required for the field agent to complete the work order.

Integrating Field Service Management with other ServiceNow products enables you to create a work order from within the other product's workspace.

When you create a work order from an integrated product:

- Data from the product record automatically copies to the new work order.
- The work order is available from within the integrated product.

You can create a work order from the following integrated record types:

Incident

Use Field Service in Incident Management to create work orders from incidents. For more information, see [Integration with Incident Management](#).

Change

Use Field Service in Change Management to create work orders from change requests while on a live call or chat with the customer. For more information, see [Integration with Change Management](#).

Project task

Use Field Service in Project Portfolio Management to create work orders from project tasks. For more information, see [Integration with Project Portfolio Management](#).

Service requests

Use Field Service in IT Service Management to create work orders from service requests.

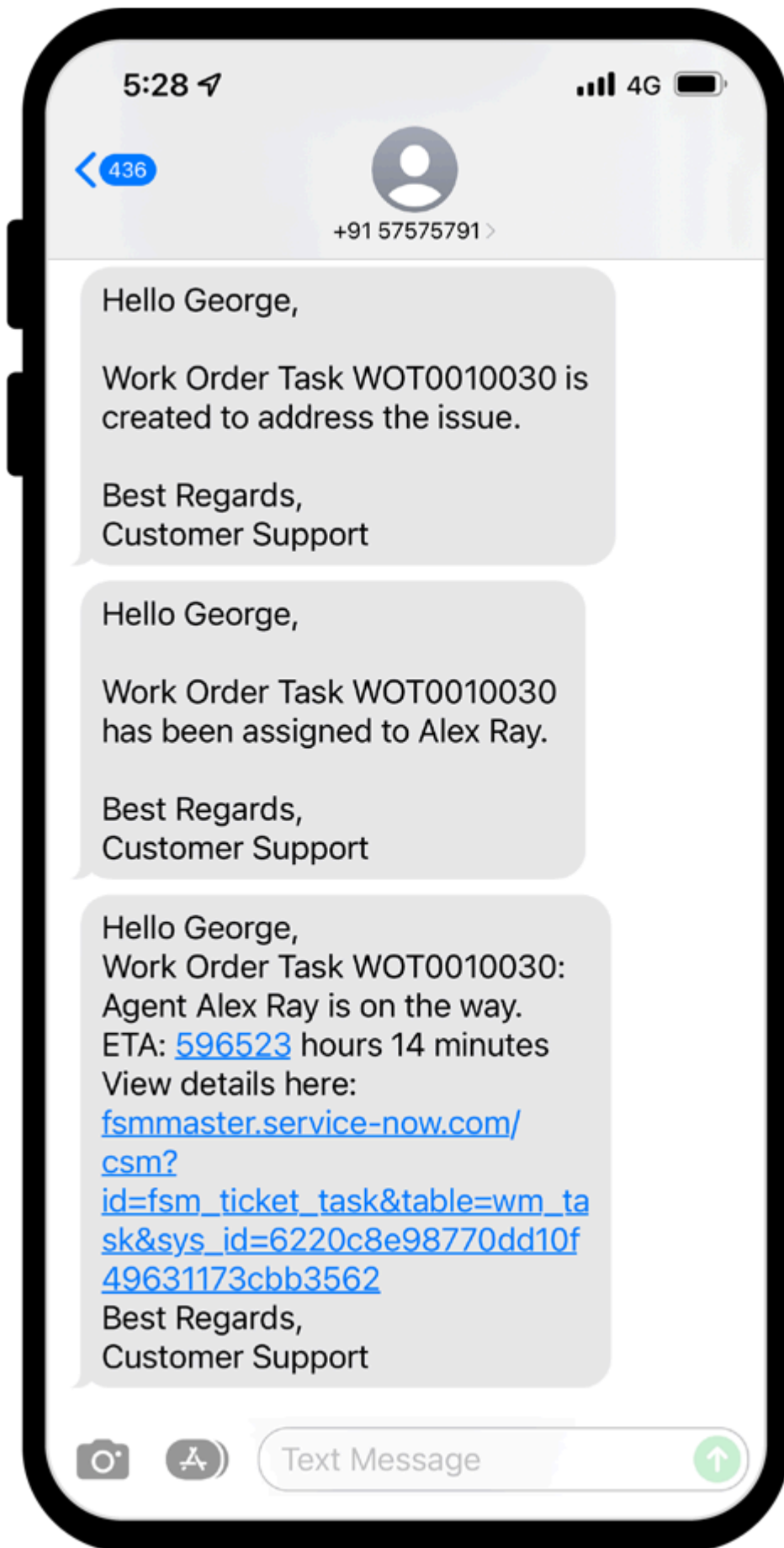
Related topics[Configuring work order templates](#)[Prepare work orders](#)**Customer Experience in Field Service Management**

The Customer Experience feature in Field Service Management provides customers with timely updates about their reported issues, enabling them to track the location of agents and provide agent feedback.

How the Field Service Management Customer Experience application keeps your customers informed when a field agent is traveling to their location.

The Customer Experience feature provides transparent communication and constant updates to customers about their reported issues through automated email notifications or text messages.

After the agent completes the work, send customers a survey link to gather feedback on the work.



Related topics

[Activate Field Service Management Customer Experience](#)

[Customer or Consumer Service Portal](#)

Work order insights powered by Predictive Intelligence

Use machine learning algorithms in the Predictive Intelligence feature to recommend solutions for work orders.

Predictive Intelligence for Field Service Management enables you to train predictive models and apply machine-learning solutions to your data. These solutions help you find knowledge articles and similar work orders containing information to help resolve your current issue.

Key benefits

Predictive Intelligence solution definitions provide the following benefits to agents:

Decrease time to resolution

- Use solution definitions to recommend similar work orders based on the information entered in the work order short description. These recommendations can help agents with case investigation and resolution.
- Use solution definitions to recommend knowledge articles on similar subjects by comparing the knowledge article text to the short description of work order or work order task.
- Use solution definitions to recommend parts for completing the work order tasks based on the insights gathered from the work order tasks with similar short description.

Reduces error rates and costs

Use clustering solution definitions to cluster similar work orders into topics based on the information entered in the work order short description. For more information, see [View work order trends topics](#).

Related topics

[Configuring Predictive Intelligence for Field Service Management](#)

[Predictive analytics: Work order insights](#)

Process Mining for Field Service Management

Integrating the Process Mining application with the Field Service Management application enables you to analyze processes relevant to your KPIs, and identify bottlenecks associated with work order tasks.

Process Mining for FSM creates business process flows from the work order task data in audit trails, allowing process owners to perform in-depth analysis and discover process insights to improve business outcomes.

Use Process Mining Content Pack for FSM (com.snc.fsm_process_optimization) plugin to activate Process Mining Content Pack for FSM. For more information, see [Additional plugins for Field Service Management](#).

End user and roles

If you have the required roles, you can use Analyst Workbench to access the visualized process workflow data, and tools for analyzing the data related to customer service cases. For more information, see [Overview of the Analyst Workbench](#) .

The following roles are required for using the Process Mining Content Pack for FSM.

- sn_process_optimization_viewer
- sn_process_optimization_admin
- sn_process_optimization_analyst
- sn_process_optimization_power_user


Optimization project for work order tasks

The Process Mining Content Pack for FSM adds a pre-built project that includes a predefined **Work order tasks** process model definition for work orders. By default, the **Work order tasks** project filters work order tasks for the last two quarters. You can also configure a new process project based on the pre-built project.


The **Work order tasks** process model definition includes default activity definitions and breakdown definitions for work order tasks that you can use as they are or modify them for a custom configuration.

- Use activity definitions to understand state transitions such as tasks transitioning from the work in progress state to the solution proposed state.
- Use breakdown definitions to filter records and analyze a process map by categories. For example, you can filter the work order tasks data by agents, assignment groups, and locations.

Continual Improvement Management initiative for work order tasks

If the Continual Improvement Management (CIM) application is enabled, you can also use the CIM project from the Analyst Workbench to track the progress of improvement initiatives for work order tasks. The improvement initiative and Process Mining model are automatically linked. For more information, see [Integration with Continual Improvement Management](#) .

Performance Analytics for work order tasks

If the Performance Analytics application is enabled, you can also use the available template configurations to open the Process Mining application from a Performance Analytics (PA) indicator based on the work order task data. For more information, see [Integration with Performance Analytics \(PA\)](#) .

Related topics

[Example of content pack for FSM](#) 

Optimizing Scheduling and Dispatching operations

Explore how dispatchers manage scheduling and dispatching operations to verify tasks are assigned efficiently to field agents, maximizing resource use and customer satisfaction. Discover the mechanisms behind effective task allocation, verifying that the right task goes to the right agent at the right time for smooth service delivery.

The Scheduling Challenge

Dispatchers are responsible for determining which field agent should attend to which tasks, and when, during their shift. Their goal is to produce a service schedule, creating an optimal task schedule for all agents in the field.

Given that each task takes two hours to complete and each agent has an eight-hour shift, each field agent can complete up to four tasks during one shift. For four tasks and four resources:

- All four agents could each take one task.
- One agent could handle all four tasks.
- Two agents could split the tasks, each taking two tasks.
- Three agents could divide the tasks with one agent taking two tasks and the other two taking one task each.

Overview of Scheduling Methods

The goal of scheduling is to verify that the right task is assigned to the right field agent at the right time, optimizing resource utilization, and customer satisfaction. Understanding the scheduling mechanisms provides a holistic view of task allocation options available to a dispatcher.

- **Manual:** Manual scheduling involves the traditional drag-and-drop method, enabling dispatchers to manually assign tasks to field agents. While suitable for smaller teams with limited tasks, manual scheduling can be time-consuming and prone to errors.
- **Interactive:** Auto-Assign, Intelligent Task Recommendation, and Route Optimization
 - Dispatchers can use various interactive tools to find the best assignment, but the dispatcher makes the final decision. Auto-Assign manually triggers dynamic scheduling and finds suitable field agents based on various parameters. The dispatcher chooses to accept. Suitable for high volume of tasks needing quick allocation. For example: a telecom company rolling out a new service across a city.
 - When Intelligent Task Recommendation is invoked in Dispatcher Workspace, any free time that agents have between tasks and events is displayed as white space in the agent's calendar. It suggests the best available tasks to fill these gaps in the schedule. This feature is available to both dispatchers in the Dispatcher Workspace and to field agents in the ServiceNow Agent Mobile Application.
 - While Auto-Assign focuses on assigning the task to the most suitable technician, Route Optimization reorders these tasks post-assignment to minimize driving time.
- **Automatic:** Automatic scheduling is using Dynamic Scheduling to auto-assign incoming tasks based on predefined conditions like skillset or location. This method utilizes predefined rules to assign tasks and is efficient for medium-scale operations, focusing on immediate, individual task assignments. It's also ideal for tasks with well-defined requirements, such as routine maintenance tasks for a fleet of rental cars. Automatic scheduling can also be triggered from an event, such as when a tech schedules non-available time, tasks are automatically removed and rescheduled. This may be used during vacations or unexpected sick leaves.
- **Schedule Optimization:** Batch Optimization optimizes tasks in batches for multiple field agents, considering all constraints. Use it at the beginning of the day or week. For example, a cleaning service plans its week ahead for multiple clients. Intraday Optimization reoptimizes schedules in real-time based on changing conditions. Useful when tasks are canceled, delayed, or new tasks come in. For example: a cable service provider deals with last-minute cancellations and new installations.

Automating work order task scheduling

Learn to schedule work order tasks among field agents using automated scheduling methods. With factors like SLAs, task dependencies, and locations in mind, automation streamlines the process for optimal results.

Key Considerations for Scheduling:

- Service Level Agreements (SLAs)
- Task Windows & Duration
- Task Dependencies
- Skills and Parts required
- Working Time and Overtime
- Geographical Location
- Contractor Availability
- Custom Preferences
- Task Bundling

The automated scheduling methods consider the key factors and assign tasks to the correct agents. This not only saves time but also enhances the efficiency of the field service operations.

Efficiently manage technicians and tasks based on location

Field Service Management provides different types of maps. These maps help field service agents, managers, and dispatchers to get tasks done faster.

Agent map

Field service agents can view optimized routes for tasks assigned to them on a given day.

Managers can view optimized routes for tasks assigned to members in their team.

Dispatch map

Dispatchers can know where field service technicians are so that the dispatchers can assign and reassign work based on proximity.

Dispatchers can view all open work tasks so they can understand work distribution and can quickly identify impacted areas.

Dispatchers can easily assign work tasks, optimize routes, and change assignments directly from the map.

Service level agreement (SLA) map

The SLA map is color-coded. Dispatchers can prioritize work tasks for technicians based on SLA contractual terms, such as time to breach.

Related topics

[Setting up a Field Service scheduling method](#)

Appointment booking

Appointment booking feature enables you to configure, manage and create appointments.

Appointment booking feature helps to effectively manage the service requests. With the appointment booking feature, the administrators can configure appointment availability, notifications, and manage appointment slots.

Customers can view available appointment windows, make a selection, and book a service appointment from the service portal. Agents and dispatchers can also book appointments on behalf of customers.

Appointment booking feature supports manual assignment of work order tasks and dynamic scheduling of the work order tasks.

Key features

Key features of appointment booking include:

- Generate work order and work order tasks for an appointment.
- Ensure that work orders are completed on time, technicians are efficiently assigned, and customer expectations are met.
- Enable the use of the seismic appointment booking calendar across all user interfaces, ensuring a consistent and seamless scheduling experience.
- Recommend slots to the customers to ensure optimal scheduling.
- Appointment booking feature ensures a smooth workflow by minimizing appointment conflicts.
- Ensure maximum productivity by configuring the appointment slots based on the task, location, agent availability, and skills.

Appointment Booking based on Capacity and Reservations Management

Appointment Booking considers the defined capacity and reservations for a territory or group to show the available slots. For more information, see [Learn about appointment availability settings for an application configuration](#).

Dynamic scheduling

Dynamic Scheduling is an advanced and flexible mechanism to manage work tasks for field agents. It makes scheduling easier and lets dispatchers handle exceptions and changes effectively.

By leveraging task attributes and agent availability, Dynamic Scheduling optimizes task allocation, leading to improved efficiency in field service operations.

Key benefits

Dynamic Scheduling streamlines field assignments, maintains SLAs, optimizes agent selection, and improves issue resolution. By leveraging its advanced capabilities, organizations can enhance operational efficiency, deliver exceptional field service experiences, and achieve higher levels of customer satisfaction.

Streamline field assignments

With Dynamic Scheduling, you can automate schedules and routes, minimizing travel time for mobile workers. By assigning tasks based on customizable ordering rules, critical work is prioritized, ensuring that field agents and crews spend more time on productive tasks and less time driving.

Maintain Service Level Agreements (SLAs)

Dynamic Scheduling automatically reassigns tasks. For example, when an agent is on time-off or when a high priority task comes in. By utilizing ordering rules and

un-assignment constraints, you can free up agents to handle higher priority tasks, ensuring optimal resource allocation and compliance with SLAs.

Intelligent agent selection

Matching tasks with the most suitable agents is made easy with Dynamic Scheduling. By considering criteria such as agent skills and travel time, tasks are intelligently assigned to agents who possess the required skills and can reach the job site efficiently. This maximizes productivity and enhances service quality.

Resolve issues on the first visit

Dynamic Scheduling enables automatic assignment of tasks to field service workers who have the right skills and equipment. By ensuring that tasks are assigned to qualified agents, the likelihood of resolving issues on the first visit is increased. This minimizes the need for multiple service calls and enhances customer satisfaction.

Integration with Workforce Optimization for Field Service

When enabled, Dynamic Scheduling works with the Workforce Optimization for Field Service application. This integration enables you to view the agent's schedule and events directly from the Dispatcher Workspace calendar. Gain access to a unified view of agent availability and make informed task assignments.

Dynamic Scheduling for Planned Crews

Dynamic Scheduling schedules task assignments to planned crews. There are two types of crews: planned crews, which are pre-created, and dynamic crews, which are dynamically created as needed. Dynamic Scheduling supports both planned crews and dynamic crews.

Dynamic Scheduling for Capacity and Reservations Management

Dynamic Scheduling schedules task assignments based on capacity defined for a territory or group by considering all the reservation rules.

Related topics

[Configuring Dynamic Scheduling](#)

Intelligent Task Recommendation

The ServiceNow[®] Intelligent Task Recommendation feature helps dispatchers to improve agent utilization by recommending tasks to fill agent schedules. Agents can also view the recommended tasks and assign them to themselves using the ServiceNow Agent mobile app.

Key Features

Set up Intelligent Task Recommendations to efficiently recommend tasks to agents based on defined policies and filtering conditions. Determine the applications through which you can access task recommendations. Intelligent Task Recommendations offer several key features that enhance scheduling efficiency:

- **Gap Filling:** When invoked in Dispatcher Workspace or ServiceNow Agent Mobile Application, Intelligent Task Recommendations identify gaps in agents' schedules and recommend tasks to fill these gaps, maximizing agent utilization.
- **Selection Criteria:** Recommended tasks must meet specific selection criteria, including being in the Pending Dispatch state, falling within the agent's coverage area, and having an estimated work duration within the selected time window.
- **Utilization Optimization:** By recommending tasks that align with agents' availability and skills, Intelligent Task Recommendations optimize agent utilization, minimizing idle time and maximizing productivity.

Related topics

[Setting up Intelligent Task Recommendations](#)

[Assign work order tasks to agents using Intelligent Task Recommendation](#)

[Assign tasks to yourself based on Intelligent Task Recommendation](#)

Schedule Optimization

The Schedule Optimization enables you to optimize task scheduling, auto-assign tasks, and adapt to changing conditions. By applying policies, you can create the best possible schedule that maximizes task assignment and minimizes travel time.

Key Benefits

Boost customer satisfaction

Create more predictable schedules, give preference to high-priority work, and help ensure SLAs are met. Focus on solving exceptional cases while Schedule Optimization handles the majority of tasks.

Decrease costs

Coordinate and direct a large number of agents efficiently. Schedule the best resource to help ensure a first-time fix. Reduce travel time and overtime.

Increase revenue

Fit more jobs into working hours to boost customer satisfaction and loyalty.

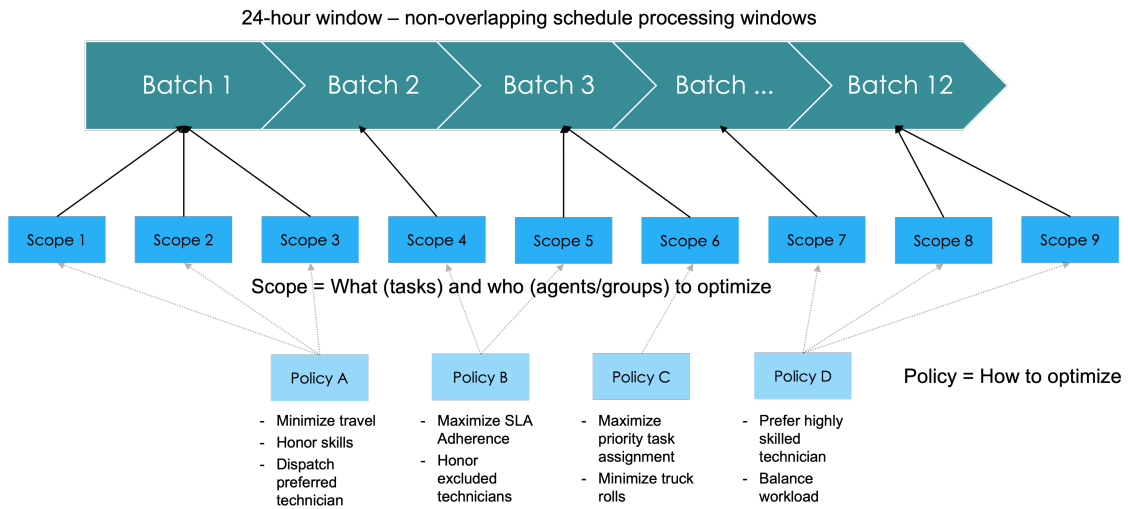
Agent productivity

Increase agent productivity by enabling quick transitions between assignments. Minimize travel time to reduce fuel consumption and lower emissions.

Schedule Optimization workflow diagram

The following figure illustrates the high-level workflow of Schedule Optimization.

Schedule Optimization workflow



Key components in Schedule Optimization

Policies encapsulate your optimization goals by blending objectives and constraints. Knowing your objectives and constraints allows you to tailor your optimization strategies effectively. For example, if your team consists of 20 technicians operating within a city, a policy can be configured to minimize travel time. By running an optimization batch the night prior, the system streamlines tasks, cutting down on commuting time.

Scopes link tasks to policies and can be based on assignment groups or geographical territories. Selecting the appropriate scope is critical to ensure that your policies are applied to the right set of tasks, optimizing your resources where it counts.

Batches are the configurations that set when and how your optimizations occur. Running batches at strategic times allows you to adapt to changes and needs swiftly.



Note:

Utilize the 'Schedule Optimization' Application Scope for setting up and configuring these elements.

Schedule Optimization based on territories

Use Schedule Optimization with Field Service Territory Planning to schedule complex multi-territory assignments where an agent might be responsible for multiple territories over a longer batch processing period. Assign tasks to agents whether they're primary or secondary members of a single or multiple territories.

Intra-day Schedule Optimization

Intra-day Optimization re-optimizes schedules for groups or territories in real-time based on changing conditions. Useful when tasks are canceled, delayed, or new tasks come in. For example:

- A cable service provider deals with last-minute cancellations.
- A weather event results in new, high-priority repair tasks.
- A technician calls out sick for the day.

Note:

Field Service Scheduling Automation must be installed to use Intra-day Optimization.

Schedule Optimization based on Capacity and Reservations Management

Use Schedule Optimization with Capacity and Reservations Management to allocate tasks. This integration considers defined capacities and reservations for both internal teams and external contractors before scheduling and allocating tasks.

Schedule Optimization for Planned Crews

Use schedule optimization to optimize task assignments to planned crews. There are two types of crews: planned crews, which are pre-created, and dynamic crews, which are dynamically created as needed. Schedule optimization only supports planned crews.

Schedule Optimization with Workforce Optimization for Field Service

Use Schedule Optimization to consider agents' schedule and events from the Workforce Optimization for Field Service application to auto-assign tasks.

Schedule Optimization with advanced task dependencies

Use Schedule Optimization to efficiently assign tasks considering advanced task dependencies between them.

Related topics

[Configuring Schedule Optimization](#)

Dispatcher Workspace

Dispatchers can efficiently manage field teams and customer experience to achieve positive outcome for your organization through Dispatcher Workspace. Forecast potential problem areas before they arise and maximize operational efficiency for both field teams and customers.

Dispatcher Workspace overview.

Watch this short video to see how dispatchers use Dispatcher Workspace.

The Dispatcher Workspace is the main working space for dispatchers, bringing speed and efficiency to field service scheduling. It provides dispatchers and managers with a complete view of tasks, teams, locations, and status. Dispatcher Workspace has a configurable layout so dispatchers can create a personalized display with custom filters, advanced search, and sort options. Task and agent cards can be customized to display relevant information.

Key features

With Dispatcher Workspace, you can manage work efficiently, simplify resource management, deliver on service level agreements, and maximize productivity. Key benefits of Dispatcher Workspace include:

Single workspace

See everything in one configurable screen, from unassigned tasks to technician schedules and maps. For more information, see [Customize Dispatcher Workspace](#) and [Dispatcher dashboard](#).

Automated work assignment

Schedule work orders based on technician skills, parts, distance, recommendations, and access hours.

- Utilize dynamic scheduling to automatically assign work orders based on various factors, including skills, availability, and distance. For more information, see [Dynamic scheduling](#).
- Streamline work assignments for crews by automating the scheduling process. For more information, see [Field Service Crew Operations](#).

Route optimization

Reduce travel time and costs by visualizing and improving multiple technician routes simultaneously.

Intelligent task recommendations

Improve agent utilization through intelligent task recommendations. For more information, see [Intelligent Task Recommendation](#).

Multiple time zones

Add multiple time zones to Dispatcher Workspace and quickly see where agents are located.

Assignment assistance

Quickly sort a list of the best agents to assign a work order task based on the criteria that you choose from.

Drag work assignments based on proximity, availability, and skills

Enable dispatchers to drag-and-drop work assignment so they can assign tasks to technicians based on proximity, availability, and the specific skills required. Dispatchers can see an overview of what times are available for technicians and the current distance from tasks. Dispatchers can then drag unassigned work onto available times for technicians.

Dispatchers can efficiently route work to technicians and monitor their performance. Route optimization determines the optimal route for them to service multiple locations.

Related topics

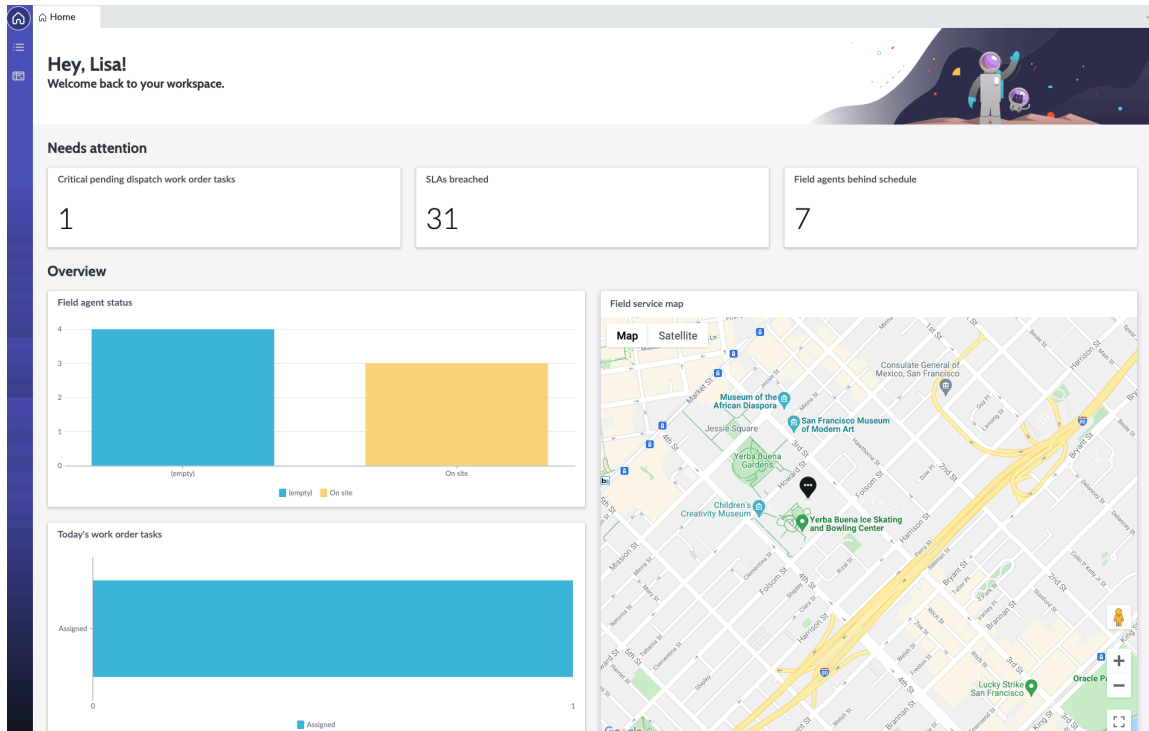
[Configuring Dispatcher Workspace](#)

[Using Dispatcher Workspace](#)

Dispatcher dashboard

Get real-time visibility into work orders, schedules, agent locations and statuses through the Dispatcher dashboard.

The Dispatcher dashboard displays the real-time data of the operations and performance of field service agents across their assignments. Dispatchers have instant visibility into pending dispatch items and the current status of agents. With the map expanded, dispatchers can take actions to auto-zoom the map to a particular technician or work order task.



Capacity and Reservations Management

Field Service Capacity and Reservations Management enables managers to assign the appropriate amount of work to agents and contractor teams, ensuring they are not overloaded beyond their defined capacity. It helps plan work assignments based on priority and demand, ensuring business services remain available without overburdening resources.

The capacity management process helps you plan work assignments based on priority and demand and ensure that business services are not unavailable due to being over capacity. Reservation rules within capacity management enable you to reserve a certain percentage of time for various tasks. Analyzing past failures and planning for the growth of demand for services help you manage capacity efficiently.

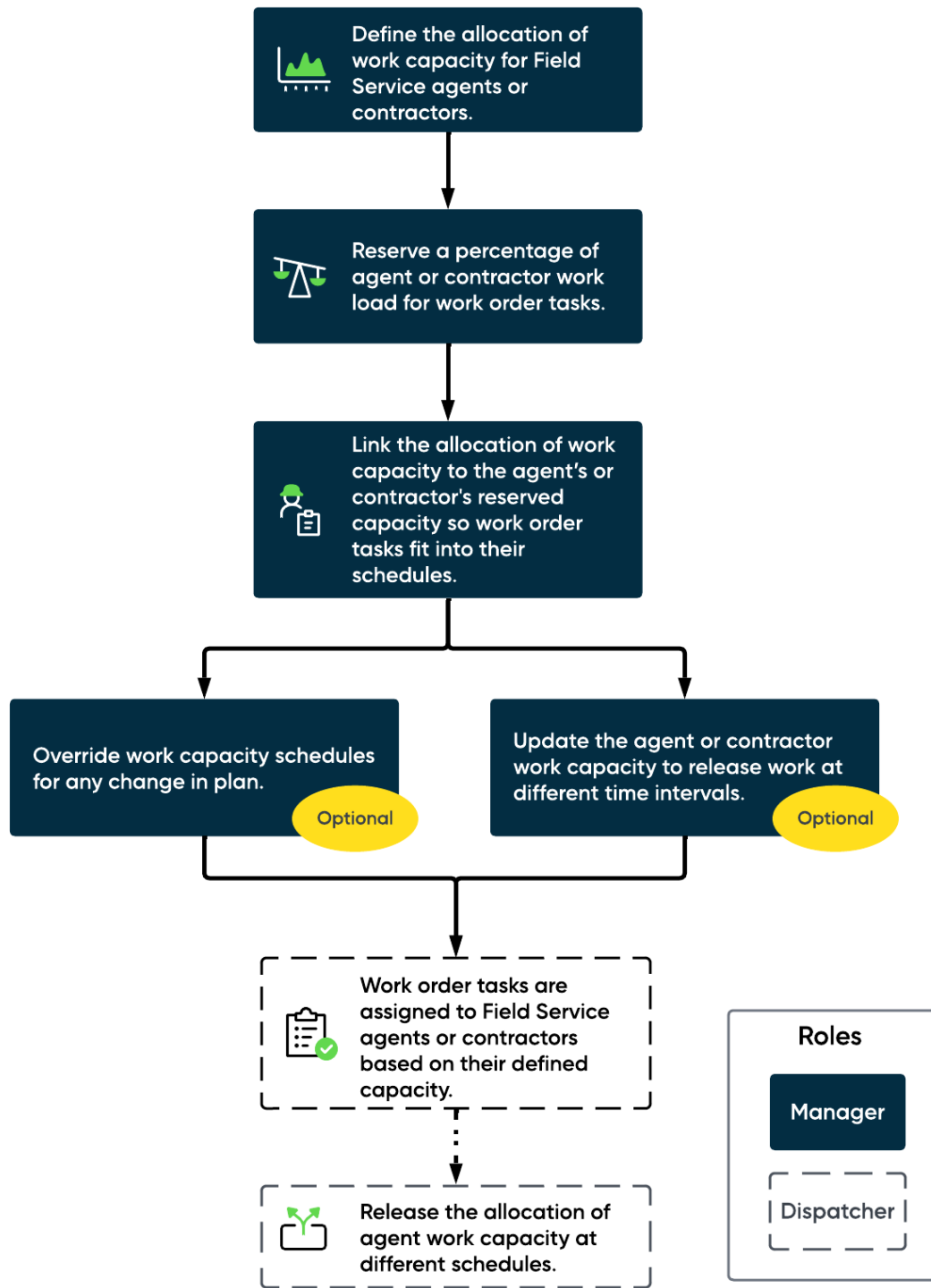
You can use the Capacity Console, an advanced tool designed for monitoring, managing, and optimizing resource capacities across territories and demand channels. For more information, see [Capacity Console](#).

Key benefits

Field Service Capacity and Reservations Management provides the following benefits:

- Improve dispatcher efficiency by automating scheduling based on capacity rules.
- Better management of workloads by assigning the appropriate amount of work to the Field Service agents and contractor companies.
- Stay compliant with contractor company requirements by adhering to their stated capacity.

The image below is an example of the different states that agent capacities go through, starting with defining the agent's work capacity, and the reservation of a percentage of agent's time. Then ending with the release of the allocated capacity based on the agent's schedule.



Related topics

- [Field Service Capacity and Reservations Management components](#)
- [Configuring Field Service Capacity and Reservations Management](#)
- [View Capacity Usages information](#)
- [Field Service Territory Capacity Analytics dashboard](#)
- [Capacity Console](#)

Capacity Console

The Capacity Console is a centralized, intuitive tool that simplifies the management of demand, capacity, and resources based on territories. Designed to empower organizations, it offers real-time insights into resource utilization, enabling them to optimize capacity usage, and adapt to evolving business needs.

By streamlining capacity planning and providing actionable insights, the Capacity Console supports balanced workloads and operational efficiency.

Key benefits

Field Service Advanced Capacity and Reservations Management provides the following benefits:

- **Real-time visibility:** Get up-to-date views of capacity utilization across territories and demand channels.
- **Proactive decision-making:** Identify bottlenecks and underperforming or overperforming areas for immediate corrective actions.
- **Resource optimization:** Compare used versus allocated capacity to ensure resources are used effectively.
- **Contextual side panel:** To view additional capacity data or to drill down on the capacity data and take necessary actions at territory and demand channel level.

How it works

- **Calendar view:** The console features a calendar view that provides a clear, actionable visual representation of capacity utilization across territories and demand channels.
- **Filters:** Filters located at the top of the page allow users to refine data views. Default filters display the most relevant information, but users can update and save filter preferences to suit specific business needs.

Related topics

[Activate Field Service Capacity console](#)

[Using the Capacity Console](#)

Field Service Agent Efficiency

Field Service Agent Efficiency helps optimize task assignment and scheduling for work order tasks by accurately calculating the work duration for a work order task.

Field Service Agent Efficiency is the pace at which an agent can complete a work order task. By analyzing efficiency metrics, tasks can be assigned more effectively to agents depending on their efficiency for various criteria, ensuring optimal resource management and timely completion.

Key benefits

Field Service Agent Efficiency provides the following benefits:

- Field Service Agent Efficiency metrics help to more accurately calculate the estimated work duration for a work order task so you can optimize scheduling and dispatching of work order tasks.
- Field Service Agent Efficiency metrics assist in aligning tasks with the most appropriate agents by taking into account their efficiency ratings and travel time.
- Efficient agents can be deployed where they're most needed, optimizing workforce utilization.
- Integrating Field Service Agent Efficiency with Dynamic Scheduling ensures that the agent with the appropriate efficiency is auto-assigned to the work order task.
- Incorporating Field Service Agent Efficiency with Intelligent Task Recommendation helps dispatchers to improve agent utilization by recommending the appropriate tasks for agents based on their efficiency.

Related topics

[Configuring Field Service Agent Efficiency](#)

[Field Service Agent Efficiency components](#)

Field Service Crew Operations

Simplify your scheduling process and create a crew of Field Service agents that can be assigned to work together using the Field Service Crew Operations feature.

Field Service Crew Operations enable you to assign the same set of resources repeatedly to recurring tasks. Crew members work together on the assigned task for a set number of hours, days, weeks, or months. The

crew leader can record the crew's work contributions using the mobile

Field Service Crew Operations provides easier assignment of multiple agents to tasks, better management of agents, improved visibility into long-cycle tasks, and real time visibility on schedule tasks.



Create crews for scheduled and ad hoc events/situations.



Distinguish/highlight tasks requiring a crew in the task panel.



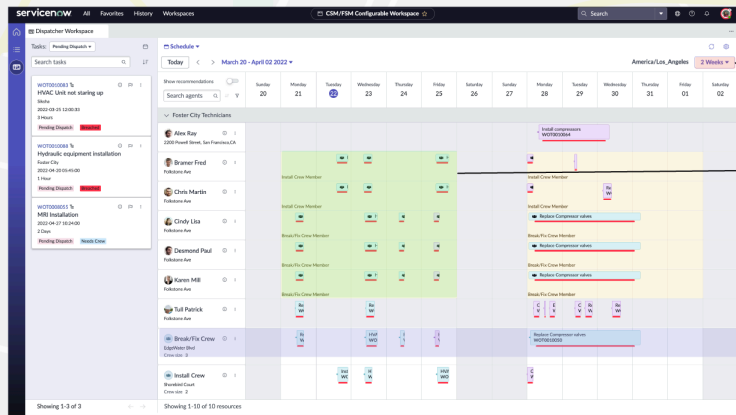
Highlight available crews for tasks based on skills, location, covered radius, and availability.



Automatically assign tasks to crews based on dynamic scheduling rules.



Use the map to pick the closest crew based on real-time location.



Change between day and week views.

See which crew the technician is in for any scheduled crew tasks.

See crew availability and scheduled tasks.

application.

Related topics

- [Activate Field Service Crew Operations](#)
- [Field Service Crew Operations components](#)
- [Configuring Field Service Crew Operations](#)
- [Add crews to a territory](#)
- [Using Field Service Crew operations](#)

Field Service Territory Planning

Field Service Territory Planning enables you to create, view, analyze, and manage territories for better scheduling of work orders and work order tasks.

With intelligent filtering and matching based on predefined rules, Field Service Territory Planning ensures that the right agents or groups are assigned to tasks, taking into account geographical locations and business objectives.

As a territory manager or planner, you can view territories and data points both within and outside boundaries, providing a comprehensive understanding of spatial distribution.

Key benefits

Assisted territory creation

Craft multidimensional territories effortlessly using map-driven tools. Modify boundaries dynamically to include new data points, ensuring inclusivity of assets and work orders in specific areas.

Enhanced visualization

Empower decision-making with a clear visual representation of agents, tasks, and assets. Leverage custom data overlays and an interactive territory map for superior planning and scheduling capabilities.

Optimized resource allocation

Create flexible service territories, minimizing overlaps. Directly assign agents or crews without the need for assignment groups, maximizing efficiency in resource allocation.

Performance analytics and management

Gain valuable insights into your operations with performance analytics. Monitor open work order tasks, agent utilization on work order tasks, and average travel time according to territory through the Field Service Territory Performance Analytics dashboard.

Data security

Choose to have data privacy by limiting work order and work order tasks visibility to the assigned territory for smooth and secure business operations.

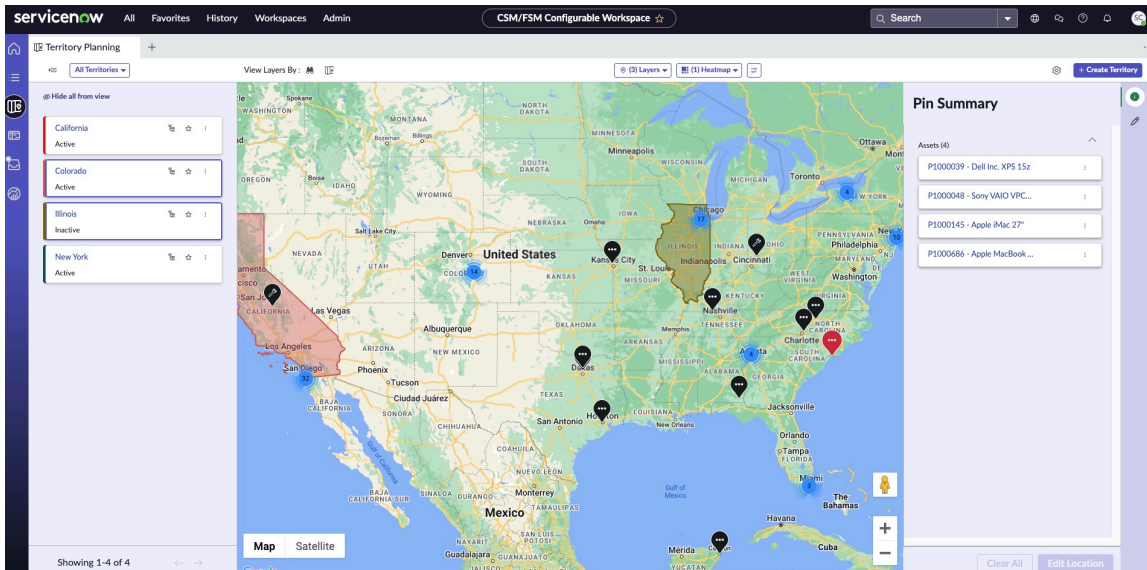
Capacity management

Manage capacity for in-house teams and external contractors, defining it in hours or tasks. Address external contractor groups separately, ensuring precise resource allocation based on territories, helping to prevent overloads, and enhancing operational efficiency.

Schedule optimization

Schedule complex multi-territory assignments where an agent might be responsible for multiple territories over a longer batch processing period. Assign tasks to agents whether they're primary or secondary members of a single or multiple territories.

The following screenshot highlights data items and a contextual side panel. Selecting a co-located map marker displays detailed asset information, ensuring seamless territory management.



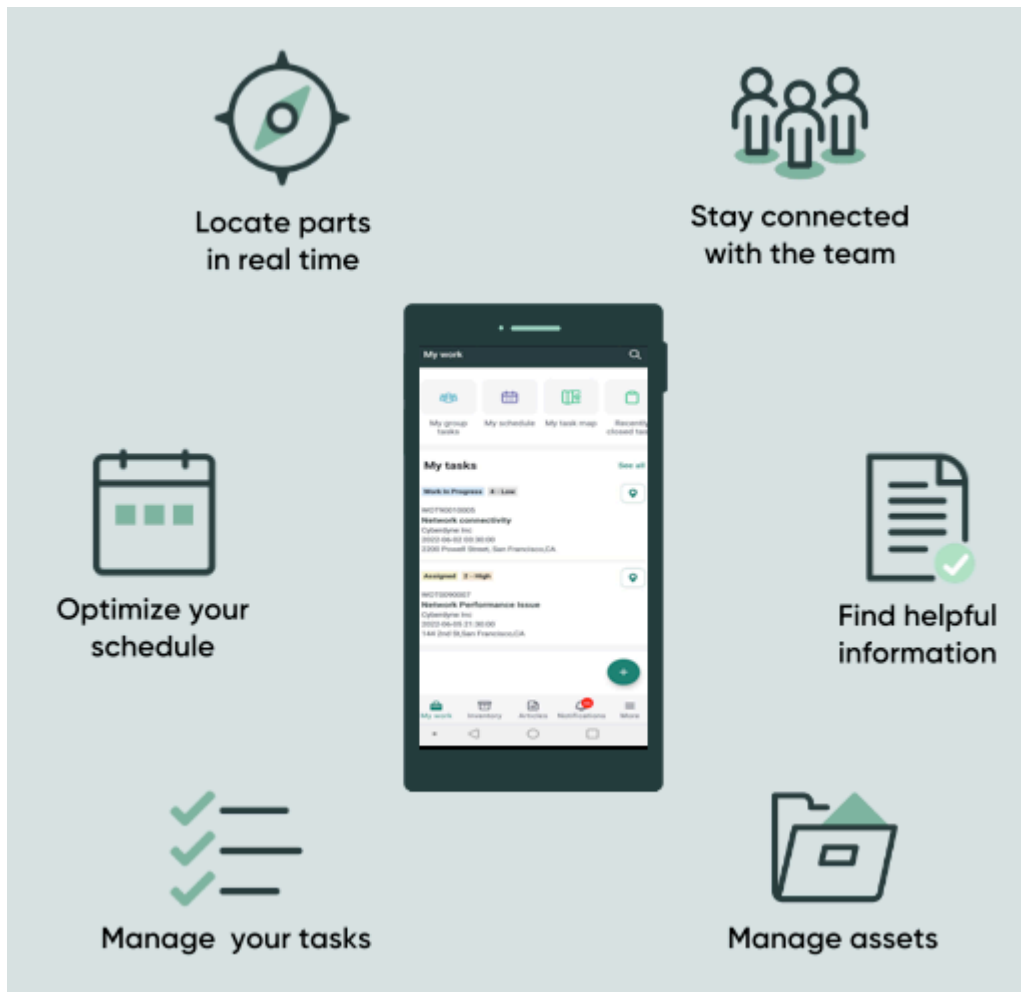
Related topics

- [Configuring Field Service Territory Planning](#)
- [Managing territories and agents from Territory Planning console](#)
- [Field Service Territory Performance Analytics dashboard](#)

Mobile experience for Field Service Management

Manage your field service tasks from anywhere using the Field Service Management mobile application. When not connected to the Internet, you can still plan, work on, and complete tasks. Your mobile device will sync the information with when it next connects.

The Field Service Management mobile application runs on the ServiceNow mobile platform.



Agent mobile application experience and its functions



Manage your tasks

Prioritizing on Mobile Agent

- Plan your tasks
- Plan your schedule
- Start work



Manage assets

Setting up inventory and asset management

- Procure assets
- Receive assets using Mobile app



Optimize your schedule

Find the quickest way to complete assigned jobs

- Find optimal routes for executing tasks in multiple locations
- Navigate to task locations using the task map

Agent mobile application experience and its functions (continued)



Locate parts in real time

Inventory on Mobile Agent

- Locate parts using the asset map on the app
- Record assets used for a work order task



Stay connected with the team

Start a Sidebar discussion on the Now Mobile Agent application

- Call customers directly from the app if more information is needed
- Connect with peers by calling or sending them a text message



Find helpful information

Knowledge articles on Mobile Agent

- Search through knowledgebase articles for assistance
- Verify when your team members are on-site and whether they are on schedule to complete their tasks

When **offline**, you can still execute assigned tasks, manage assets, access your schedule, track the time stamp of updated tasks, and close work orders and work order tasks. The data for tasks performed offline is stored on your device and synchronized when the device goes online.

Watch this four-minute video for a demonstration of the ServiceNow Field Service mobile application for managing field service tasks. [Field Service Management Mobile experience](#)

Empower technicians with an optimized mobile application

From their supported smartphones and tablets, field service technicians can do various tasks, such as accept or reject tasks, track travel and work time, display tasks and parts using map views, and access their schedules. Questionnaires are available to collect and complete necessary task details, such as safety or work completion checklists. When assignments are complete, customers can acknowledge the work with a signature on the technician's mobile device. Customers can also receive a work order summary by email.

The mobile app also supports offline mode, enabling technicians to work without internet connectivity.

Use and customize reports available with your application to get insights into task metrics, such as mean time for resolving work order tasks. Get real-time understanding of utilization, capacity, customers, locations requesting work, and other metrics using the dashboard. Managers can easily customize reports and dashboards to gain real-time insight into technician utilization and capacity. Managers will better understand customer and employee work requests and locations to pinpoint improvement opportunities.

Related topics

[Configure the Now Mobile Agent application](#)

[Complete work orders on Mobile Agent](#)

Playbooks for Field Service Management

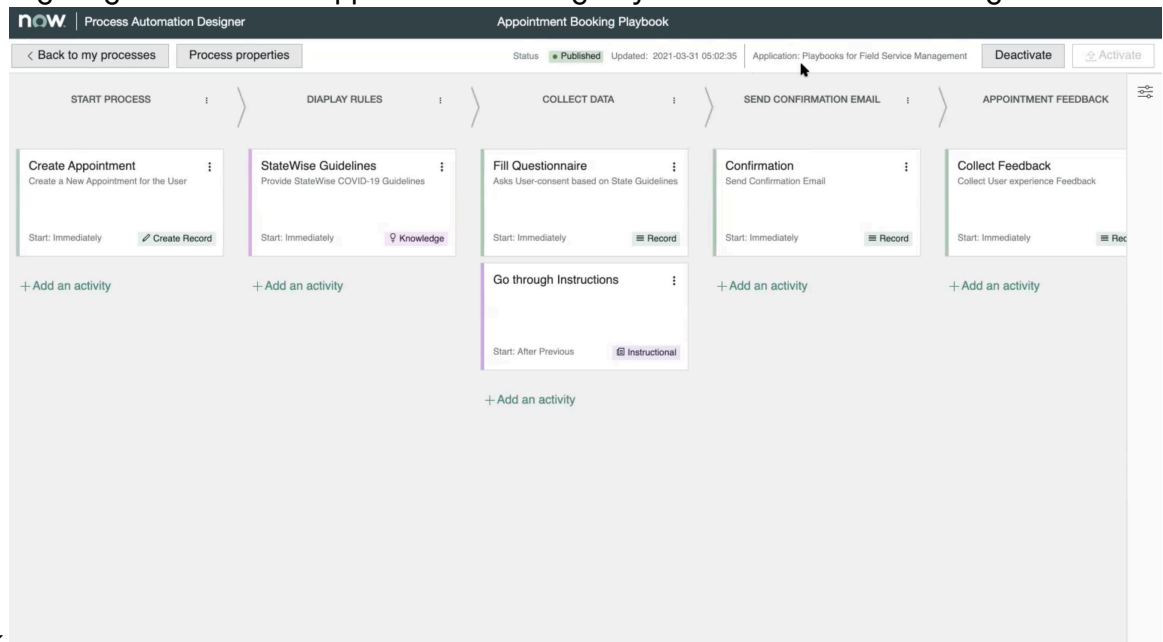
Playbooks provide step-by-step guidance for your Field Service teams to complete activities involved in field service tasks.

Playbooks enable agents to manage the life cycle of work order tasks by guiding them through sequences of activities. The workflows associated with a specific type of work order task and the activities that must be completed to resolve that task are detailed in the playbook.

A playbook takes a workflow and breaks it into multiple stages. Each stage includes the following:

- A list of activities or steps that the agent must perform.
- Status indicators that display the current state of each activity or step.
- Check boxes and counters that indicate where an agent is in the workflow.

The following image illustrates the Appointment Booking Playbook workflow created using a



playbook.

Playbooks for the Now Mobile Agent

Playbooks for the Now Mobile Agent application include stages for completing a work order task. Playbooks can be viewed under a selected work order task on the **My work** page. Tasks that have an active playbook associated with it display a **View Playbooks** button.

Playbooks are organized in stages to provide a guided experience. They direct you to new or existing features of the mobile application and maintain a checklist of completed stages on that work order task. Stages can be marked complete or skipped at your discretion. The stages progress as follows:

1. Troubleshoot
2. Parts
3. Record time
4. Log incidentals
5. Verify work completion
6. Close work order task

For more information, see [Playbooks on Mobile Agent](#).

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Related topics

[Configuring Playbooks for Field Service Management](#)

Field Service Marketplace

Field Service Marketplace optimizes contractor management, improves communication, and streamlines task allocation processes.

With features like push notifications, task acceptance/rejection, bid withdrawal, and task timelines, the application streamlines the workflow for External Contractor Managers. Dispatcher/Internal Contractor Managers can push tasks, set bidding criteria, review responses, and access valuable metrics. The application maintains confidentiality in bidding and provides a timeline for bid response expiration.

https://player.vimeo.com/video/1111717941?h=e169fb210a&badge=0&autoplay=0&player_id=0&app_id=58479

Related topics

[Configuring Field Service Marketplace](#)

Inventory management in Field Service Management

Inventory management is the process of keeping track of parts and supplies, including the transfer of parts, consumption, adjustments and more.

Parts represent items which field service agents may need while completing a work order. Parts can be physical items, like a battery, or may be non-physical components, like an oil change or a estimate. Both physical and non-physical products are measured and sold in quantity of units.

Related topics

[Manage inventory in Field Service Management](#)

Linear asset support

Linear asset support in Field Service Management enables you to complete any essential tasks such as maintenance activities or repairs necessary for the optimal functioning of linear assets.

A linear asset is an asset that has a physical length or dimension, such as roads, railways, and telecommunication networks or cables. They have a defined starting point and ending point, and can be represented as a sequence of interconnected segments or nodes. A linear segment is a specific section of that asset defined by either a start point and an end point or a start point and a length. You can create linear assets in Enterprise Asset Management. For more information, see [Create linear assets](#).

Field Service Management offers the capability to create and manage work orders and work order tasks for linear assets. The integration of Google Maps enables you to view and select linear assets and their associated segments directly on the service location map interface.

Key benefits

Linear asset support provides the following benefits:

- Visualize and record precise locations of tasks occurring within the framework of a linear asset structure.
- Easily locate the specific areas that are part of a linear asset structure, minimizing the necessity for multiple visits.
- Provide precise work locations to field service agents to eliminate backtracking along paths to expedite the completion of tasks.

Related topics

[Activate linear assets support in Field Service Management](#)

[Assign work orders for linear assets in Field Service Management](#)

[Linear assets on Mobile Agent](#)

Monitoring and analytics for Field Service Management

Manage, supervise, and monitor various managerial activities involved in Field Service Management, such as managing work order task assignments, approving agent time-off, workload, and others.

Field Service Contractor Management

Manage contractor work and service level agreements (SLA). With the ServiceNow Contractor Management application, connect, engage, and collaborate with third-party contractor companies and their staff to outsource the work order tasks.

The Field Service Contractor Management application enables Field Service managers of your organization to outsource work by onboarding contractor companies and their staff, such as external managers and external agents. Work order tasks are assigned to the contractor group's manager from the contractor company. A group qualifies the assignment criterion based on the selected assignment group values, such as the external group, and its coverage area, skills, and product models.

The managers of these contractor companies use the [Contractor Portal](#) to review the assigned work order task details and can choose to reject work on the tasks. If they accept the task, they can then reassign the tasks to their contractor team members.

If the preferred assignment group is internal but no one in the internal group qualifies for the assignment group criterion, then the system searches for a suitable external group to assign the task to and vice versa.

Related topics

[Activate Field Service Contractor Management](#)

[Configuring Contractor Management](#)

[Contractor Portal](#)

[Contractor dashboard](#)

Emergency Exposure Management

The Emergency Exposure Management feature in Field Service Management helps identify field service agents and customers who may have visited an affected location. It helps find people

who have come in contact with an agent who has been classified as positive for a condition, such as COVID-19.

By using the Emergency Exposure Management application in collaboration with Field Service Management, you can identify potentially affected customers and other agents by checking the work order history of the affected agent.

If an agent is reported as positive for a condition, the diagnostic admin can run a diagnostic report to identify other potentially affected agents, customers who might have come in contact with the affected agent, and other agents who visited the affected customers during the selected time period. The Field Service manager can view the diagnostic report and take appropriate action to mitigate the spread of infection. The manager can promote agent safety by blocking the affected or potentially exposed agents from being available for future dates.

The Emergency Exposure Management application enables you to do the following:

Trace affected agents and customers

Run a diagnostic report for affected agents based on their work order history for the selected time period and view the report to identify other potentially affected agents and customers.

Block agent calendars

Mark the affected and potentially affected agents unavailable for the selected time period to avoid assigning any further tasks.

Enforce compliance checks for agents

Require agents to participate in a compliance survey before starting work on the task and before completing the work order task to check whether they have taken proper precautions based on the recommended safety protocol guidelines.

View data with Covid19 impact

View task, agent, and asset locations on a map that shows the COVID-19 impact.

Related topics

[Use Emergency Exposure Management for Field Service agent monitoring and assignments](#)

Predictive analytics: Work order insights

Resolve work orders more efficiently by using Predictive Intelligence for Field Service Management to identify work orders with similar issues. Each group of similar work orders represents a work order trends topic.

Key benefits

Using work order trends topic has the following benefits:

- **Increase manager productivity:** Quickly identify clusters of cases that point to similar underlying issues and act to resolve them.
- **Improve agent experiences:** Proactively resolve issues by analyzing other work orders in the topic.
- **Enhance operational efficiency:** Reduce the backlog of work orders by resolving several similar type of work orders at once.

System administrators train solution definitions to identify and cluster similar type of work orders. Managers use the **Work Order Trends** topic lists to analyze the backlog of work orders.

Related topics

[View work order trends topics](#)

Planned Work Management

The Planned Work Management application works with Field Service Management to help organizations to create and manage the planned work activities with recurring schedules at regular intervals. The planned work activities include, maintenance, inspections, audits or more.

This application allows to configure planned activities, which are scheduled to be executed periodically based on time intervals, usage, or the occurrence of certain conditions.

Planned Work Management enables you to create work orders that specify how and when to perform planned work activities, such as maintenance, inspections, and audits. Work orders can be based on the following factors:

- A specified time interval, such as after a certain number of months since the last maintenance was performed.
- Meters or usage, such as after a specified number of pages are printed or a specified number of miles are driven.

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Related topics

[Configuring Planned Work Management](#)

[Create a work order for the planned work](#)

[Work plan example](#)

[Planned Work Management Home page](#)

Workforce Optimization for Field Service

Manage and maintain the productivity of your workforce from a single location using Workforce Optimization for Field Service. Using this application, you can efficiently route work to your team, manage your team's skills and schedules, and monitor their performance.

Use Workforce Optimization for Field Service to optimize your workforce and manage your teams efficiently. This feature also enables you to coach your teams so that they gain the skills that let you address the demands from your customers.

Workforce Optimization for Field Service introduces Manager Workspace, which provides a real-time overview of the ongoing workload and the team performance. It also help managers to manage the schedules and shifts of their agents. Administrators can configure and customize the workspace using the application capabilities to complete the service objectives efficiently. For more information, see [Workforce Optimization for Field Service Manager Workspace dashboard](#).

Features available with Workforce Optimization for Field Service



Key Features

Scheduling

Manage the scheduling for your agents from Manager Workspace. You can access your team's calendar to view the agent's schedule for coverage and their time-off. This information can help you create shift plans and schedule plans, assign agents to shifts, and publish schedules. You can also create personal events such as appointments and meetings on behalf of the agent using calendar.

Team performance

Organize each of your teams into assignment groups and monitor their performance from Manager Workspace. Create a set of Key Performance Indicators (KPIs) that references Performance Analytics indicators and apply them to all groups within that team to analyze the team performance. From a central location, you can drill into the metrics for a group, an agent, or a work order task within that team.

Automating employee coaching and training

Assess your team's performance and set coaching plans to improve their skills. Use Predictive Intelligence to recommend skills based on tasks the agents have resolved. Create coaching opportunities based on the recommendation and train the agents to acquire those skills by assigning the learning content, such as internal knowledge articles and external courses from Udemy.

Related topics

[Configuring Workforce Optimization for Field Service](#)

[Workforce Optimization for Field Service components](#)

[Workforce Optimization](#)

Field Service Management workflow examples

The sample workflows in this section provide examples of how you can use Field Service Management to resolve issue faster, prevent issues from occurring, and work seamlessly across organizations.

Field Service operations workflow example

This Field Service operations workflow example shows how a clinical engineering manager at a healthcare provider handles an MRI scanner issue that can be resolved with a firmware upgrade.

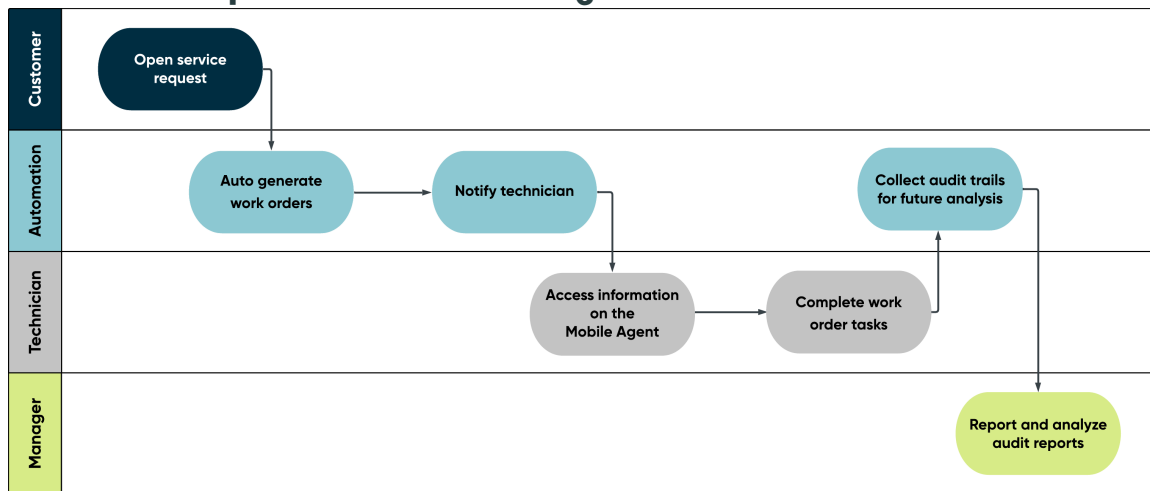
Maria, a clinical engineering manager, is notified of an MRI scanner issue. She was frustrated with the slow upgrade process, which involved long waits and multiple calls to the vendor's support line. After the vendor implemented ServiceNow, Maria's experience improved.

With the Field Service Management application, the vendor automates the upgrade process, leading to more efficient service and higher customer satisfaction. Maria can submit a service request with a preferred time through the self-service portal. The Customer Service Management (CSM) application creates a work order with necessary details, and FSM assigns the task to a nearby field agent with the right skills.

Maria receives a text with a map of the field agent's location and arrival time. Once the upgrade is complete, the field agent marks the task as complete in the FSM mobile app. Maria confirms the work and signs the work order on their phone. FSM saves all work order info for future analysis, reporting, audits, and compliance.

ServiceNow helped the vendor complete the upgrade quickly, reducing phone calls and saving important issue and resolution data to enhance Maria's customer experience.

Field Service operations workflow diagram



Field Service operations workflow steps

The following table provides the steps for the Field Service operations workflow.

Field Service Management operations workflow steps and descriptions

Steps	Description
1. Open request	The clinical engineering manager logs in to the self-service portal of the asset vendor and opens a service request with a preferred time of service.
2. Auto-generate work order	The appointment booking application automatically generates a work order that contains all the tasks needed to complete the upgrade.
3. Auto-dispatch technician	Tasks can be automatically assigned to a field agent based on their location, skill set, and availability using dynamic scheduling. The field agent receives a push notification on their mobile app, which they can see and accept (or reject for reassignment to another technician). Once accepted, the work order is updated.

Field Service Management operations workflow steps and descriptions (continued)

Steps	Description
4. Access information	With the ServiceNow Mobile Agent , the field agent can access information including location, equipment, customer history, knowledge articles, and others to help them successfully complete the task. When the field agent is on their way, a text message is automatically sent to notify the customer. It includes a link to view a map with the field agent’s current location and estimated time of arrival to set expectations and improve the overall experience.
5. Complete work order	Once the field agent upgrades the firmware and completes the task, the clinical engineering manager can digitally sign and confirm the work order is complete.
6. Track and audit	The signed status automatically generates a PDF summary of the work order including the completed tasks, parts used and returned, incidental expenses, and the time required to complete the work. The PDF is attached to the work order form for tracking and audit purposes.
7. Report and analyze	All data and timelines are also tracked in the work order, and are available for trend analysis, reports, and audits to satisfy compliance requirements. The Field Service manager compares the metrics from the work order to key performance indicators (KPIs) available by default within theServiceNow Performance Analytics dashboards.

Field Service preventive maintenance workflow example

This Field Service preventive maintenance workflow example provides an example of an aircraft maintenance manager setting up a maintenance plan to trigger a diagnostic alert after every 25 hours of flight time.

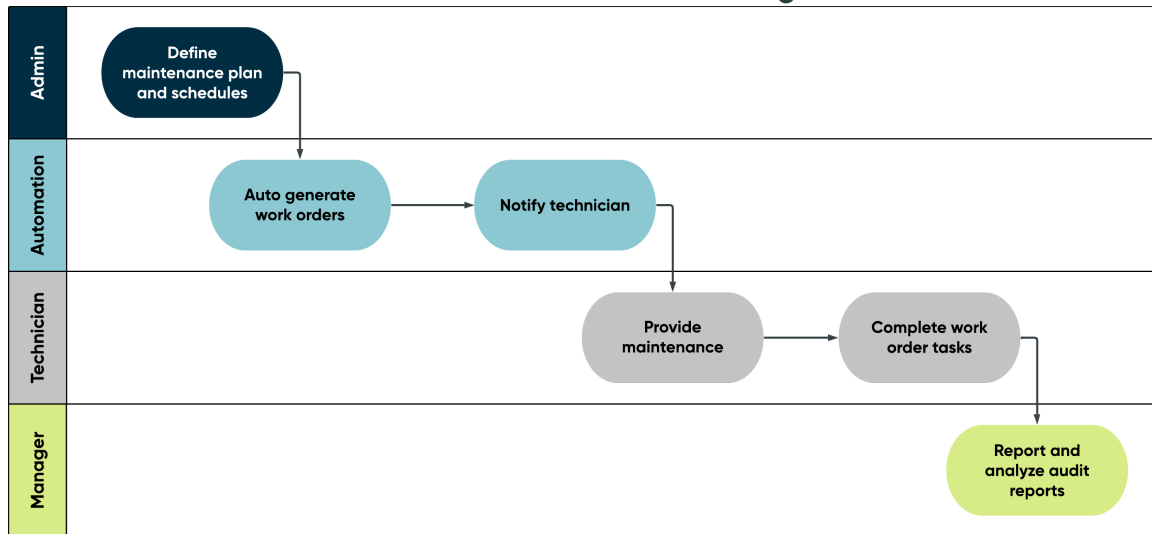
An aircraft maintenance manager, Lisa, sets up a maintenance plan to trigger a diagnostic alert after every 25 flight hours. Lisa found their paper-based planning processes inefficient and lacking real-time visibility. This led to grounded aircraft and financial losses. Implementing ServiceNow Field Service Management with Asset Management made a significant difference.

Now, Lisa automates maintenance plans for each aircraft, triggering alerts and generating work orders for diagnostic tasks after every 25 and 600 hours of flight time. The system assigns tasks to avionics field agents based on location, skills, and availability, ensuring the best-qualified and closest field agent is sent to avoid delays.

Field agents log in to accept or reroute tasks and view aircraft details, service history, and parts to be checked from the integrated asset management system. They can also view recommendations from articles and past work orders. When they complete diagnostic tasks, the system schedules the next maintenance tasks. All work order information is saved for analysis, reporting, audits, and compliance.

With Field Service Management, Lisa ensures passenger and crew safety, boosts revenue by optimizing aircraft availability, and meets compliance needs by reviewing work order data to spot trends.

Field Service Preventive maintenance workflow diagram



Field Service Preventive maintenance workflow steps

The following table provides the steps for the Field Service preventive maintenance workflow.

Preventive maintenance workflow steps and descriptions

Steps	Description
1. Define workflow	The aircraft maintenance manager creates a maintenance plan and schedules maintenance, for example, so that diagnostic verification must be completed before 60 hours and more extensive checks performed every 200 hours, depending on the aircraft type.
2. Auto-generate work orders	The maintenance plan automatically creates one or more work orders when a trigger threshold is met. Templates containing the appropriate series of repeatable tasks for each aircraft type are used to create tasks for each work order. These tasks are assigned automatically to agents based on their location, availability, and skills.
3. Notify technician	The field agent is notified about the task assignment. The agent can log in to see and accept (or reroute) the task that needs to be executed to finish the maintenance diagnostic.
4. Provide comprehensive maintenance	With integrated Asset Management, the agent can see asset details, such as subcomponents, service history, and information on which parts need to be replaced or serviced. In addition, the technician can get recommendations, directions, tips from knowledge articles, and information from previous work orders to help complete the task.
5. Complete the work order tasks	Once the technician finishes the maintenance and updates the task, the next planned maintenance appointment is scheduled and assigned automatically.
6. Provide audit trail	All completed tasks and data are tracked in the maintenance plan records for future reference, so administrators can easily pull data needed for trend analysis, reports, and audits to satisfy compliance requirements.

Preventive maintenance workflow steps and descriptions (continued)

Steps	Description
7. Report and analyze	Track tasks and data in a maintenance plan to support future analysis, reporting, audits, and compliance activity.

Field Service IT workflow example

This example describes a coordinated Field Service and IT service management situation.

As a store manager, Joe was unhappy with the quality of IT support and field service. Reporting issues meant many questions and no estimated fix times. Field agents sometimes arrived with the wrong parts due to manual data errors. Outdated software would crash the card transaction system, causing lost sales and unhappy customers.

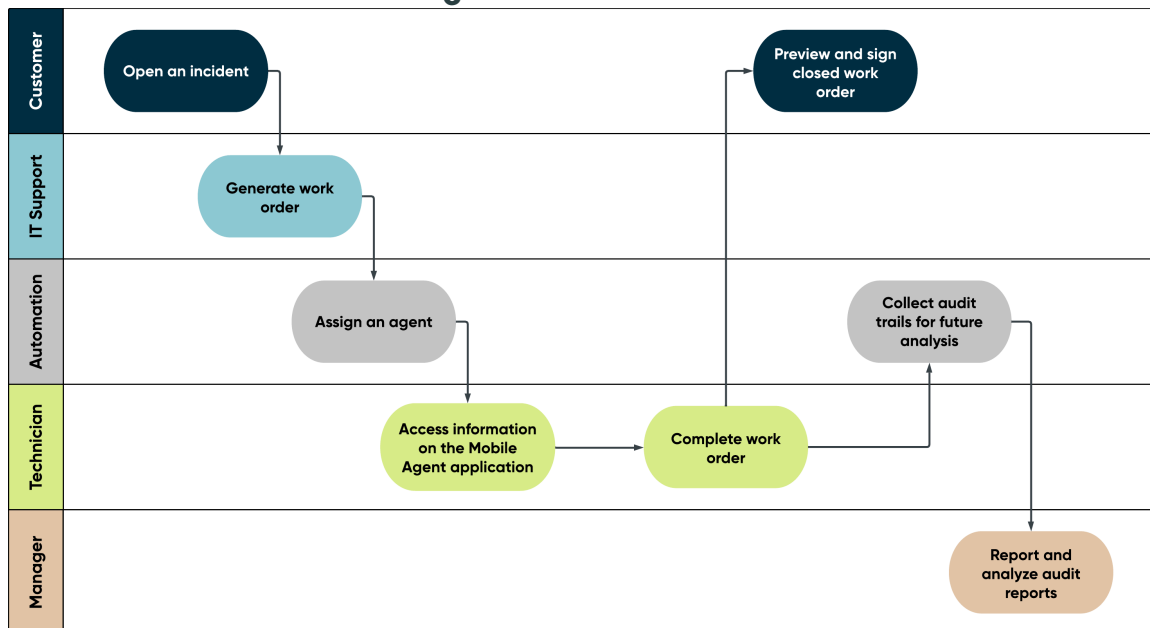
After implementing ServiceNow, Joe's experience improved.

IT Support and Field Service administrators can create processes to share information and maintenance schedules. Joe can scan equipment to automatically open an incident with IT Support. If a field agent is needed, the IT support rep creates a work order with the necessary details, and Field Service Management routes it to the closest, skilled field agent. Joe receives a notification with the estimated arrival time.

Field agents use the Mobile Agent to review issue details, solutions, and maintenance tasks. They can digitally document and close the work order after completing the tasks.

Field Service Management tracks parts used, expenses, and completion times on a shared platform. Increased visibility of assets, field agent location, and status improved performance and productivity. Reducing documentation time and meeting customer expectations with quicker resolutions helped prevent costly downtime. Better system performance led to increased sales revenue and happier customers for Joe's store.

Field Service IT workflow diagram



IT Field Service workflow steps

The following table provides the steps for the IT Field Service workflow.

Workflow steps for IT incident resolution and work order process

Steps	Description
1. Open incident	At a store location, the point-of-sale (PoS) systems are having trouble reading cards. The store manager identifies the issue and uses the Mobile Agent to scan the bar code on the PoS system. This automatically creates and populates an incident, which is assigned to the store Support Service desk.
2. Generate work order	The Support team triages the incident and determines whether it requires a software or hardware fix. In this case, the PoS system requires a software upgrade, so the store Support Service Desk opens a high-priority work order directly from the incident with just one click.
3. Assign a technician	The work order can be assigned to either internal or external third-party teams. In this case, the work order is automatically assigned to an internal technician. The technician is notified of the assignment, accepts the task, and starts traveling to the store. The store manager is informed of the technician's expected arrival time.
4. Comprehensive check	With the Mobile Agent, the technician has access to all the information about the PoS system and its history (for example, inspections, past fixes, and so on), along with relevant knowledge base articles that can help them resolve the issue. Technicians do a thorough maintenance of the PoS system, which helps reduce future issues and travel costs.
5. Complete work order	Once the technician completes the work, they document their work effort, make any notes, and close the work order. The store manager then digitally signs and confirms the work order is complete. This submission automatically updates the incident.
6. Track and provide audit trail	A PDF summary of all the completed tasks, parts used and returned, incidental expenses, and time taken to do the work is automatically created and attached to the work order. All data is tracked in one single platform for future trend analysis, reports, and audits.

Virtual Agent for Field Service Management

ServiceNow[®] Virtual Agent for Field Service Management enables field service agents to get quick answers to their work-related queries by interacting with a virtual agent through the Now Agent mobile application.

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Virtual Agent for Field Service Management

Understanding Field Service Virtual Agent Conversations

Virtual Agent for Field Service Management enhances the agent experience by addressing agent work-related queries immediately. Field service agents can chat with the Virtual Agent using the Now Agent mobile application to quickly get information about their upcoming work schedules. Agents can command Virtual Agent to update the tasks.

Natural Language Understanding

Implement Natural Language Understanding (NLU) for all your Field Service Virtual Agent Conversations topics. The system can more clearly comprehend word meanings and recognize word contexts to better infer user actions.

Enable NLU on the Field Service Virtual Agent Conversations application and republish your existing conversation topics to optimize the user experience with this feature. For more information, see [Natural Language Understanding in Virtual Agent](#).

Related topics

[Configuring Field Service Virtual Agent Conversations](#)

Field Service Quality Management

Field Service Quality Management allows reviewers to check work order tasks before they are closed.

Field Service Quality Management overview

The Field Service Quality Management feature helps you manage work orders efficiently and effectively. With this feature, field technicians can close work orders, and reviewers can review the quality and data from the job before it's completed. This helps ensure that work is completed to a high standard.

Reviewers can check soft-closed work orders and audit the quality and data of the job before final completion. The reviewer can send the work order task back to the technician, so the technician can provide the requested information. This way, any necessary feedback or adjustments can be made before the work order is officially closed.

Overall, the Field Service Quality Management feature streamlines the process of closing work orders and ensures that work is completed to a high standard with effective communication and reporting.

Related topics

[Configuring Field Service Quality Management](#)

[Review a task](#)







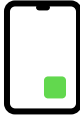
[Respond to a reviewed task](#)

[Field Service Quality Management components](#)

Configuring Field Service Management

Set up the features and work flows that you need to manage your organization's field service work.

Get started

<p>Plan</p>  <p>Plan your Field Service Management implementation.</p>	<p>Workforce</p>  <p>Set up locations, territories and users for Field Service Management.</p>	<p>Work orders and tasks</p>  <p>Configure work orders and tasks for Field Service Management.</p>
<p>Inventory and Equipment</p>  <p>Configure inventory and equipment for Field Service Management.</p>	<p>Configurable workspace</p>  <p>Set up configurable workspace for Field Service Management.</p>	<p>Scheduling methods</p>  <p>Configure scheduling methods for Field Service Management.</p>
	<p>Mobile</p>  <p>Configure Mobile for Field Service Management.</p>	

Field Service Management configuration overview

The process for configuring Field Service Management includes:

1. Planning your Field Service Management implementation

Learn where to find information about planning your implementation, Field Service Management packaging and licensing, and training for the features you want to implement.

2. Setting up your workforce

Set up foundational information such as users, locations, and territories. If your organization is using Crew, Contractor Management, Capacity Management, or Workforce Optimization, complete additional configuration steps for each feature.

3. Setting up work orders and tasks

Set up work orders and the tasks that comprise each work order. Optionally, configure additional features for work orders, such as Field Service Work Configurations, Planned Work, Playbooks, Customer Experience, and Quality Management.

4. (Optional) [Setting up inventory and asset management](#)

If your organization needs to track inventory or schedule equipment, configure the Inventory and Resource Scheduling features.

5. [Setting up CSM/FSM Configurable Workspace](#)

Configure the layouts, filters and sorting for specialized views in the CSM/FSM Configurable Workspace such as Dispatcher Workspace, Territory Planning console, and CSM Agent Workspace.

6. [Setting up a Field Service scheduling method](#)

Configure the scheduling method (Scheduling Optimization, Dynamic Scheduling, Intelligent Task Recommendations, or Route Optimization) that best meets your organization's needs. Optionally, configure additional scheduling options and capabilities.

7. [Setting up Field Service Mobile Agent](#)

Configure access to tasks, locations, and other information from your mobile device. If you are using Contractor Management, set up Field Service Contractor for mobile so that contractors can manage their assigned tasks.

Planning your Field Service Management implementation

Before starting on your implementation journey, take some time to plan your implementation, understand Field Service Management packaging and licensing, and take some training for the features you want to implement.

Planning

To efficiently implement and get long-term value from Field Service Management, you'll need a strong foundation. Start by documenting the vision and value, including KPIs. Don't skip critical planning and management processes such as governance and OCM. Support these efforts with the right people and strong executive sponsorship.

Utilize the ServiceNow[®] Upgrade Center for managing upgrades, which features modules for tracking upgrade progress and tools to handle post-upgrade skips. For more information, see [Upgrade Center](#).

Package and licenses

For information on Field Service Management packages and licensing, go to the [Field Service Management pricing page](#) and scroll down to the "Package Options" section.

Training information

The following on-demand training is available for Field Service Management. These courses require you to be logged into your ServiceNow University Account before you can start the class.

[Field Service Management \(FSM\) Fundamentals](#) - Learn about ServiceNow Field Service Management applications and modules.

[Dynamic Scheduling Essentials](#) - Learn how to configure Dynamic Scheduling to auto-assign work order tasks based on defined assignment criteria.

[Field Service Management \(FSM\) Implementation \(on demand\)](#) - Learn practical skills to accelerate the implementation of ServiceNow Field Service Management applications and related functionality, most of which may be configured using a low-code or no-code approach.

[Schedule Optimization Implementation](#) - Master Schedule Optimization in ServiceNow Field Service Management.

[Field Service Contractor Management Essentials](#) - Learn how to implement and administer the ServiceNow Field Service Contractor Management application.

[Now Assist for Field Service Management \(FSM\) Essentials](#) - Learn how to implement Now Assist for Field Service Management (FSM).

Domain separation and Field Service Management

Domain separation provides a structured and efficient way to manage complex, multi-tiered organizational environments. It allows for tailored access and control, ensuring that users see only the data relevant to their domain, enhancing security and efficiency.

Support level: Basic

- Business logic: Ensure that data goes into the proper domain for the application's service provider use cases.
- The application supports domain separation at run time. The domain separation includes separation from the user interface, cache keys, reporting, rollups, and aggregations.
- The owner of the instance must set up the application to function across multiple tenants.

Sample use case: When a service provider (SP) uses chat to respond to a tenant-customer's message, the customer must be able to see the SP's response.

For more information on support levels, see [Application support for domain separation](#).

Domain separation and Field Service Management overview

Domain separation enables you to separate data, processes, and administrative tasks into logical groupings called domains. You can control several aspects of this separation, including which users can see and access data. In the Field Service Management application, you can use the Company entity to drive domain separation. Assign a domain to each company and then any work orders and tasks created for a company are created within the company domain. Other entities and tasks related to work orders, such as dispatcher and assignment groups, part requirements, and transfer orders, are driven by the company and work order domains.

How domain separation works in Field Service Management

Domain separation for Field Service Management uses the Company entity to drive the domain structure. To use domain separation, all companies must be assigned to a domain.

When using Field Service Management in a domain separated instance, the **Company** field is a mandatory field on the Work Order form. When you create a work order for a company, the work order is created in the company domain. Any tasks created for the work order are also created in the company domain.

When using Field Service Management integrated with Customer Service Management in a domain separated instance, the **Account** field is a mandatory field on the Work Order form. When you create a work order for an account through a customer service case, the work order is created in the account domain. Any tasks created for the work order are created in the same domain as the work order. In the event that the domain of the work order changes, the domain of the work order tasks is also updated.

Modifying the company or account on a work order also modifies the domain of the work order and work order tasks. The domains of other related entities are not automatically updated. The company or account can be changed until the work order is qualified.

Note:

Field Service Management is configured at the application level and does not support domain-specific configuration. For example, if you select **use dynamic scheduling** as your task assignment method, this method is used to assign tasks in all domains.

Setting up domain separation in Field Service Management

To set up domain separation for Field Service Management, contact ServiceNow, Inc.

Work orders created from Incident, Problem, or Change

For work orders created from an incident, problem, or change request the following will occur:

- The company on the work order is inherited from the original record.
- The domain of the work order is inherited from the company.
- If the original record does not include a company, the **Company** field is still a required field on the Work Order form.

Groups

Qualification, dispatcher, and assignment groups are filtered based on the domain of the work order and work order tasks. The group domain must match the work order or work order task domain.

Parts process

The parts process, which includes sourcing and using assets, is also domain separated.

- Part requirements are created in the work order domain.
- Transfer orders and transfer order lines created for a part requirement are created in the part requirement's domain.
- When sourcing a part, the following are available:
 - Assets are available for a work order or work order task based on the part requirement domain.
 - Assets are available based on the part requirement domain.
 - Stockrooms are available based on available assets.

Related topics

[Domain separation for service providers](#) 

Extension points in Field Service Management

Use extension points to customize various configurations.

In the application navigator, enter `sys_extension_point.list` and click **Enter** to view the extension points used in the Field Service Management application.

You can create multiple implementations for each extension point and provide an order number for each implementation. The implementation that has the lowest order number is executed.

Extension points are available for the following configurations:

- Event type schedule entries
- Appointment booking

Extension points for event type schedule entries

Extension Point Name	Description
<i>AgentEventUtil</i>	Customize the logic for event type schedule entries.
<i>AgentScheduleUtil</i>	Customize the logic for computing event time-off spans.

Extension points for appointment booking

Extension Point Name	Description
<i>sn_apptmnt_booking.AppointmentBookingAvailabilityExtPoint</i>	Customize the logic to determine bookable appointment windows.
<i>sn_apptmnt_booking.AppointmentBookingDaoExtPoint</i>	Customize the logic used to create or update an appointment record.
<i>sn_apptmnt_booking.AppointmentBookingImplExtPoint</i>	Customize the logic to validate appointment data before an appointment is created.
<i>sn_apptmnt_booking.AppointmentBookingUtilExtPoint</i>	Customize logic to create a parameter map of appointment data which will be used to create and update appointment records.
<i>sn_apptmnt_booking.AppointmentRescheduleCancelExtPoint</i>	Customize logic used to determine whether appointments can

Extension points for appointment booking (continued)

Extension Point Name	Description
	be canceled or rescheduled.
<i>sn_apptmnt_booking.AppointmentRESTHelperExtPoint</i>	Customize logic for retrieving a list of date and time periods available for appointment booking.
<i>sn_apptmnt_booking.AppointmentRecommendationExtPoint</i>	Allows other applications to integrate appointment booking slot recommendation.
<i>sn_apptmnt_booking.AppointmentBookingLockingUtilExtPoint</i>	Acquire and release locks in Appointment Booking workflow.
<i>sn_apptmnt_booking.AppointmentBookingVariablesExtensionPoint</i>	Utilized by the Appointment API and Booking API to fetch Catalog_id for the task.
<i>sn_apptmnt_booking.AppointmentEnableUnifiedUI</i>	Enables the unified UI Calendar component for the specific task table extension.
<i>sn_apptmnt_booking.AppointmentHolidayHelperExtPoint</i>	Calculates the lead time by taking into account holidays as indicated by the consider_holidays_in_leadtime setting in Appointment Booking service configuration.
<i>sn_apptmnt_booking.AppointmentLeadTimeCalculation</i>	Determines whether to consider or ignore the lead time for rescheduling an appointment, based on the ignore_lead_time_on_reschedule setting in the

Extension points for appointment booking (continued)

Extension Point Name	Description
	Appointment Booking service configuration.
<i>sn_apptmnt_booking.use_unified_appt_widget</i>	Allow other applications to use seismic appointment booking calendar.

Extension points for template management

Extension Point Name	Description
<i>sn_fsm_adv_tmp.FSMTemplateMgmtExtPoint</i>	Customize the logic to enable the work order template to map information from source table to the appropriate fields in a work order.
<i>sn_fsm_adv_tmp.FSMTableMapSourceIdentifier</i>	Customize the logic to identify the source of a work order.

Extension points for geofencing radius and distance

Extension Point Name	Description
<i>OnsiteGeofenceConfig</i>	Allows you to define default values for the geofence radius and geofence unit fields in the work order task.

Extension points for heatmap color gradient

Extension Point Name	Description
<i>Heatmap Gradient (sn_cmn_mo.HeatmapGradient)</i>	Allows you to define the color gradient of the heatmap.

Extension points for territory key performance indicators (KPIs)

Extension Point Name	Description
<i>TerritoryIndicators (sn_fsm_tp.TerritoryIndicators)</i>	Allows you to define the key performance indicators (KPIs) to analyze the performance of the territory. The configured indicators

Extension points for territory key performance indicators (KPIs) (continued)

Extension Point Name	Description
	appear in the contextual side panel of the Field Service Territory Planning console.

Related topics

[Using extension points to extend application functionality](#) 

[Using scripted extension points in server-side scripts](#) 

[Using UI extension points in server-side UI macros](#) 

[Using client extension points in client-side UI scripting](#) 

Global domain configurations

Administrators in the global domain can select configuration settings that determine how Field Service Management handles daily operations.

Before you begin

Role required: wm_admin

About this task

Administrators in the global domain can set Field Service Management configurations to:

- Include or exclude portions of the request process. For example, you can require a work order to be approved before continuing to the next stage.
- Automatically assign tasks using a custom-defined workflow, or leave it up to dispatchers to manually assign tasks from the work order task form.
- Track agent travel time.

The Field Service Configuration screen contains many configuration options. An option is enabled when the switch appears green and is toggled to the right. All configuration options listed in the **Dependency** must be enabled in order for the option to be displayed.

Procedure

1. Navigate to **All > Field Service > Administration > Configuration**.

Note:

Administrators in domains lower than the global domain can view the Field Service Configuration screen, but cannot modify the settings.

The options on the Field Service Configuration screen are arranged in a multiple-tabbed layout, as follows:

- The **Business Process** tab contains options for setting up the request life cycle, creating catalogs and requests, and configuring notifications.
- The **Assignment** tab contains options for setting up manual and auto-assignment.
- The **Add-ons** tab contains options for enabling the knowledge base, managed documents, and task activities.


2. Fill in the fields on the **Business Process** tab.

The field **Agent must accept or reject the assigned task** applies to both internal and external Field Service agents.

Business Process tab

Field	Description	Dependency
Lifecycle		
Process life cycle	<p>By default, the process life cycle is set to task-driven which supports workflows on work order tasks for Dispatcher Workspace, FSM Mobile, and Schedule Optimization.</p> <p>Starting with the Xanadu release, the request driven process life cycle is no longer supported. Only users with the maint role have the option to change the Process life cycle to request driven (subtasks are optional). Request driven doesn't require tasks to fulfill requests. When the process life cycle is request driven, requests can be directly assigned to users in an assignment group. Users can still add tasks to requests. However, closing all tasks does not automatically close the request.</p> <p>Note: If the Enable state flows option is not selected, the process life cycle becomes request-driven and this field is not displayed.</p>	
Qualification is required for new requests	<p>Enable to require work orders to be qualified before moving to the next state.</p> <p>If this option is not enabled, any work orders in the <i>Awaiting Qualification</i> state are automatically qualified.</p>	<ul style="list-style-type: none"> ○ Enable state flows is turned on. ○ Process life cycle: task driven (subtasks are optional).
Agent must accept or reject the assigned task	Enable to require the assigned agent to accept or reject the task.	Enable state flows is turned on.
Track agent travel time	Enable to use time cards for agent travel for a task.	
Enable/Disable Onsite Arrival Check-in for Agents	Enable to capture agent location at on-site check-in using the Onsite arrival substate. The feature also uses geofencing to verify agent's mobile location and allows them to bypass check-in when they are in offline mode or for other reasons.	

Field	Description	Dependency
Lifecycle		
Work notes are required to close or cancel a request or task	Enable if work notes are required when closing, completing, or canceling requests and tasks. If it is disabled, work notes are not needed when closing, completing, or canceling.	
Copy task work notes to request	Enable to synchronize task work notes with the work notes on the order or request. When work notes are added in the task, the same work notes appear in the order or request.	Enable state flows is turned on.
Auto close case on work order closure	Enable to automatically close the case when all its related work orders are closed or canceled. Auto closure of a case updates the following fields in the case form with the given status. <ul style="list-style-type: none"> o resolution code: Solved- Fixed by closing related issue o additional notes: Auto Closed Case- Related work orders are closed 	
Update work order states to case	Enable to automatically update the Additional comments field in the case form whenever the state of each work order that is related to that case gets updated.	
Apply Work Order template in draft status	Enable this option to create tasks for the work order based on the applied work order template without the qualification of the work order, even when the work order is in the draft state.	
Catalog and Request Creation		
Create or update requests by inbound email.	Enable this option to allow inbound email messages to create or update requests. This option must be enabled to allow requests to be marked as spam.	
Requests are created using	Select catalog or regular form to install the catalog and enable automatic publishing of request templates to the catalog. Select regular form only to uninstall the catalog and disable automatic publishing of request templates to the catalog.	
Templates create a dedicated catalog item	Enable this option to allow automatic publishing of catalog items for the application.	
Notification		
Send a notification when a field changes for a task or request.	Configure notifications to be sent to specific recipients when selected fields in requests and/or tasks change. <ol style="list-style-type: none"> From Table, select Request or Task. From Field, select the field to use for generating notifications. When a change is made to the selected field, a notification is sent to the recipients identified. 	

Field	Description	Dependency
Lifecycle		
	<p>c. From Recipients, select one or more recipients</p> <p>d. If a specific user or a specific group, is selected, the user is prompted to select a user or group.</p> <p>e. To define more notifications using other fields or recipients, repeat the steps on the next line.</p> <p>f. To remove a notification, click the  symbol to the right of the notification.</p>	

3. Click the **Assignment** tab and fill in the fields.

Assignment tab

Field	Description	Dependency
Assignment method for tasks	<p>Select one of the following task assignment options:</p> <ul style="list-style-type: none"> ○ Select using auto-assignment to automatically assign work order tasks to field service agents. ○ Select using a workflow to assign work order tasks using a custom-designed workflow. ○ Select manually to allow dispatchers to manually assign work order tasks. ○ Select using dynamic scheduling to use the dynamic scheduling feature. 	
Use scheduled state	<p>Enable this option to use the Scheduled state in between Ready for Dispatch and Assigned states in work orders and work order tasks.</p>	
Use dispatch queue	<p>Enable this option to use the dispatch group for manual assignment.</p>	<ul style="list-style-type: none"> ○ Enable state flows is turned on. ○ Process life cycle: Life cycle is task driven.
Restrict vendor groups	<p>Enable this option to limit the selection of external vendor groups from the Assignment group field based on the selected dispatch group in the work order task form.</p>	<p>Use dispatch queue is turned on.</p>
Preferred assignment group	<p>Select one of the following task assignment options:</p> <ul style="list-style-type: none"> ○ Select Internal group to prioritize assigning the work order tasks to internal agents. ○ Select External group to prioritize assigning the work order tasks to external agents or vendors. 	

Field	Description	Dependency
	<p>Note: This configuration field displays only if the Field Service Contractor Management plugin (com.snc.fsm_contractor_management) is activated.</p>	
Assign requests or tasks based on assignment group coverage areas	Enable this option to limit the selection of groups from the Dispatch group and Assignment group fields to groups that cover the location of the task.	
Assign tasks based on assignment group product models	Enable this option to limit the selection of groups from the Dispatch group and Assignment group fields to groups that cover the necessary product model requirement of the task.	
Assign tasks based on assignment group skills	Enable this option to limit the selection of groups from the Dispatch group and Assignment group fields to groups that cover the skills that are required to perform the task.	
Scheduling		
Use agent or task scheduling	Enable this option to allow agent auto-assignment and agent auto-selection.	
Auto-selection of agents will consider time zone for tasks	Enable this option to consider the time zone of the agent when assigning a task.	Enable state flows is turned on.
Enable Shift Scheduling for FSM to determine availability	Enable this option to consider agent's schedules, skills, teams, and coaching to optimize your Field Service workforce accordingly.	Activate Workforce Optimization for Field Service.
Enable priority assignment	Enable this option to use priority assignment for auto-assigning agents.	<ul style="list-style-type: none"> ○ Enable state flows is turned on. ○ Process life cycle: Life cycle is task driven. ○ Auto-selection of agents will consider agent or task schedules.

Field	Description	Dependency
		<p>Note: The Process life cycle option is not available in all service management applications.</p>
Additional Factors		
Auto-selection of agents will consider location of agents	Enable this option to use the agent and location when determining who to assign the task to. Agents closer to the task location receive preference.	<ul style="list-style-type: none"> ○ Enable state flows is turned on. ○ If using Process life cycle: Life cycle is task driven, then Assignment method for tasks: using auto-assignment. ○ If using Process life cycle: Life cycle is request driven, then Assignment method for requests: using auto-assignment.
Auto-selection of agents for tasks requires them to have skills	<p>This option determines the degree to which skills must be matched to a task when determining auto-assignment.</p> <ul style="list-style-type: none"> ○ Select all to require that an assigned agent has all the skills to perform the task. An agent who lacks one skill is eliminated. ○ Select some if you want agents who have most of the skills to perform the task. ○ Select none if you want to auto-assign agents without considering skills. 	<ul style="list-style-type: none"> ○ Enable state flows is turned on. ○ If using Process life cycle: Life cycle is task driven, then Assignment method for tasks: using auto-assignment. ○ If using Process life cycle: Life cycle is request driven, then Assignment method for requests: using auto-assignment.

4. Click the **Add-ons** tab and fill in the fields.

Add-ons tab

Field	Description	Dependency
Part Requirements		
Part requirements are needed by agents	Enable this option to require agents to specify parts for the task.	
Reserve parts in agent stockroom	Enable this option to reserve required parts in the agent stockroom when scheduling and rescheduling work order tasks.	Part requirements are needed by agents.

Field	Description	Dependency
Part Requirements		
Cancel open Transfer Orders	Enable this option to release the reservation of reserved parts in the agent personal stockroom when unscheduling work order tasks.	Part requirements are needed by agents.
Edit associated models	Click add and select the part model to be used for this task. Click more to select more part models.	Part requirements are needed by agents.
Documentation		
Enable a dedicated knowledge base	Enable this option to install the knowledge base for the application.	
Enable managed documents	Enable this option to add a related list to managed documents.	
Enable task activities	Enable this option to log the task interactions and communications, such as phone calls and email messages.	
Associated Task Tables		
Select associated tables	Click Add to select more tables.	
Maps		
Enable maps	Enable this option to use maps.	
Signature Capture and PDF Order Summary		
Signature Capture	Enable this option to include the name and electronic signature of the customer in the PDF work order summary.	
PDF Order Summary	Enable this option to create a PDF summary for a work order that includes completed tasks, parts used and returned, incidental expenses, and the time required to complete the work.	
Use Document Template to generate PDF Summary	Enable this option to create a PDF summary for a work order in a document template.	PDF Order Summary
Service Locations		
Validation	Select either of the following configuration option to create ad-hoc locations: <ul style="list-style-type: none"> ○ Using Map: Create location using a Google map interface. ○ Without Map: Create locations by enter the location details. 	

Field	Description	Dependency
Part Requirements		
	<p>i Note: The system validates the details using third party APIs extension points.</p> <ul style="list-style-type: none"> ○ No Validation: Create locations by enter the location details including latitude and longitude coordinates. <p>i Note: This configuration field displays only if the Field Service with Service Locations plugin (com.snc.fsm_service_locations) is activated.</p>	
Initial rendering location	<p>Select either of the default map location when Using Map configuration is enabled:</p> <ul style="list-style-type: none"> ○ Browser Location ○ Asset Address ○ Contact/Caller Address ○ Company Address 	

5. Click **Save**.

⚠ Warning:
If you clicked the **Enable state flows** option to disable it, a confirmation box appears, along with a link to documentation that explains the consequences of disabling state flows. It is highly recommended that you read the documentation before proceeding. The action of disabling service management state flows cannot be reversed.

Configuring Field Service Management using Guided Setup

Field Service Management Guided Setup provides a sequence of tasks that help you import and configure the foundation data for Field Service Management on your ServiceNow instance.

Before you begin

Role required: none

About this task

Use guided setup to step through the initial Field Service Management configuration. Guided setup assists you with planning the roll-out of the product and performing the basic configuration. Guided setup organizes configuration activities into categories and helps you track your progress.

i Note:
This guided setup assists you with only the basic configuration and doesn't include all the features and capabilities of Field Service Management.

Procedure

1. Navigate to **All > Administration > Guided Setup** and select **Get Started**.
2. Select **Get Started** for the desired module.

Tasks associated with the selected module are displayed.

3. Select **Configure** to begin the module setup.
4. **Optional:** Select **Mark as Complete** when you complete a task.

Activate Field Service Management

The Field Service Management (com.snc.work_management) is available as a separate subscription. This plugin activates related plugins, if they are not already active. After Field Service Management is activated, you can also activate additional plugins that provide demo data and enable a variety of features.

Before you begin

Role required: admin

About this task

The Field Service Management activates the following plugins, if they are not already active.

Plugins installed with Field Service Management

Plugin name	Plugin	Description
Automatic Assignment	com.snc.automatic_assignment	Automatically assigns tasks to agents based on specified criteria.
Field Service Mobile	com.sn_fsm_mobile	Manages the Field Service mobile components on an iOS or an Android mobile device. Field service agents and dispatchers can execute work order tasks, manage assets, and close work order tasks on their mobile device in online or offline mode. For more information, see Setting up Field Service Mobile Agent .
FSM Agent Workspace (Deprecated)	com.snc.agent_workspace. The deprecated plugin is replaced by com.snc.uib.fsm_agent_workspace.	Enables users to manage work orders and tasks within the agent workspace. The plugin has been deprecated in Vancouver release. For more information, see Activate Dispatcher Workspace .
Field Service Management Demo Data	com.snc.work_management	Adds demonstration data for the Field Service Management application covering the medical and telecommunication domains. Note: Installing this plugin adds new Configuration Item tables and relationships to the database. For more information, see Quick start tests for Field Service Management .

Plugins installed with Field Service Management (continued)

Plugin name	Plugin	Description
Field Service – Questionnaire	com.snc.wm_questionnaire	Create questionnaire for work orders or work order tasks. For more information, see Activate Field Service Questionnaire .
Field Service Management Mobile (Deprecated)	com.snc.work_management_mobile The deprecated plugin is replaced by sn_fsm_mobile.	Manages the Field Service classic mobile components. Agents and dispatchers can manage field service tasks using the dispatch map when the device is online and can access read-only tasks when the device is not connected to the Internet. This plugin has been deprecated. For more information, see Setting up Field Service Mobile Agent .
Field Service Map (Deprecated)	com.snc.fsm_map The deprecated plugin is replaced by com.snc.uib.fsm_dispatcher_workspace	Field Service Map to view Agents, Tasks and Agent Routes. For more information, see Additional plugins for Field Service Management .
Central Dispatch (Deprecated)	com.snc.central_dispatch The deprecated plugin is replaced by sn_fsm_disp_wrkspc.	Allows visually allocating tasks to agents for a logged in dispatcher. Installs the core Service Management items used to allow other service-related plugins to work, such as Field Service Management and Facilities Service Management. For more information, see Activate Dispatcher Workspace .
Time Recording Core	com.snc.wm_time_recording	Enables time card and time recording functions for Customer Service Management and Field Service Management. For more information, see Activate Time Recording for Field Service .
Time Recording for Field Service	com.snc.time_recording_fsm	Extends the functionality of the Time Card Management and Cost Management applications to Field Service Management.
Field Service – Signature Pad	com.snc.wo_signature_pad	Captures a customer signature for closed work orders. Creates a PDF of the work order that includes a summary of the completed work and the name and signature of the customer.

Plugins installed with Field Service Management (continued)

Plugin name	Plugin	Description
		For more information, see Signed PDF summaries for closed work orders .
Blackout and Maintenance Scheduling	com.snc.blackout_maintenance_scheduling	Setup and configuration of blackout and maintenance schedules.
Dynamic Scheduling	com.snc.dynamic_scheduling	Enables dynamic scheduling for Service Management applications and provides support for bulk task recommendations and interval-based auto assignment. For more information, see Activate dynamic scheduling .
Field Service Management CMS Portal	com.snc.work_management_portal	Enables you to launch Field Service Management and other Service Management applications from a single CMS page. This plugin is being deprecated.
Field Service Management Geolocation Demo Data	com.snc.work_management_geolocation_demo_data	Enables geolocation capabilities for the Field Service Management application.

For more information, see [Additional plugins for Field Service Management](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the plugin using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note: When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Related topics

[Components installed with Field Service Management](#)

[Additional plugins for Field Service Management](#)

Additional plugins for Field Service Management

After Field Service Management is activated, you can activate additional plugins that provide demo data and enable a variety of features.

You must have the admin role to activate these additional plugins. For details, see [Activate a plugin](#).

Field Service Management plugins and descriptions

Plugin Name	Plugin	Description
Customer Service with Field Service Management	com.snc.csm_fsm_integration	This plugin provides an integration between the Customer Service Management and Field Service Management applications. Customers and consumers can view case-related work orders from the Customer Service and Consumer Service Portals. In the Field Service Management application, users can view account and contact information on work orders and work order tasks.
Performance Analytics - Content Pack - Field Service Management	com.snc.work_management_pa	Enables Performance Analytics for Field Service Management. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details. Note: If you have Performance Analytics installed, the Field Service Management Performance Analytics plugin (com.snc.work_management_pa) is automatically activated as part of the Field Service Management plugin.
Field Service with Project Management	com.snc.wm_ppm	Field Services Integration with Project Management. This plugin activates the Project Management application and may require additional licenses.

Field Service Management plugins and descriptions (continued)

Plugin Name	Plugin	Description
Field Service with Project Management Demo Data	com.snc.wm_ppm_demo	Demo plugin for the Field Services Integration with Project Management.
Field Service with Service Locations	com.snc.fsm_service_locations	Enables users to create a new service location from the WO/WOT whenever the preferred location does not exist among the stored locations.
Field Service Management - Customer Experience	com.snc.fsm_customer_experience	Enables customers to receive SMS notification to know the status of their work order tasks and also track the location of agents when they start to travel to the customer location.
Field Service - Contractor Management	com.snc.fsm_contractor_management	Enables the contractor management portal to support the third-party workforce operations. This plugin activates Field Service Management and Service Contractor Base plugins.
Predictive Intelligence for Field Service Management	com.snc.fsm_ml	Enables customers to leverage machine learning algorithms for availing its various capabilities. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.
Field Service Capacity and Reservations Management	com.snc.fsm_capacity_management	Provides capabilities to manage task capacity for groups and field agents. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.
sn-fsm-components	com.sn_fsm_components	Repository to store the FSM Custom Components to be used in the UIB Central Dispatch page
Field Service Management Configurable Dispatcher Workspace	com.snc.uib.fsm_dispatcher_workspace	Provides the FSM components and pages to support dispatcher flows

Field Service Management plugins and descriptions (continued)

Plugin Name	Plugin	Description
		on CSM Configurable Workspace.
Field Service Management Configurable Workspace	com.snc.uib.fsm_agent_workspace	Provides the FSM components, lists, and forms to support FSM on CSM Configurable Workspace.
Field Service Virtual Agent Conversations	com.sn_fsm.virtualagent	Enables Field Service agents to get quick answers to their work-related queries by interacting with a Virtual Agent through the Now Agent mobile application
Field Service Management Virtual Conferencing Integration	com.snc.fsm_vci	Enables Field Service agents to provide timely support to customers while away from their office or desktop computer.
Field Service Management Access Hours Management	com.snc.fsm_access_hours	Enables Field Service administrators to schedule work order tasks based on the access hours defined in the task.
Field Service Multi-Day Task Scheduling	com.snc.fsm_multiday_tasks	Enables Field Service Management dispatchers to assign work order tasks spanning across multiple schedule entries to agents or crews within their defined working hours if they are available throughout the task duration.
Field Service Management Intelligent Task Recommendations	com.snc.fsm_task_recommendations	Improves agent utilization by recommending tasks to fill agent schedules.
Field Service Crew Operations	com.snc.fsm_crew_scheduling	Enables organizations to assign the same set of resources repeatedly to different tasks.
Field Service Territory Planning	com.snc.fsm_territory_planning	Filters the best matched territories for a work order or task for better scheduling of work order or work order task.
Field Service Advanced Parts Sourcing	com.snc.fsm_advanced_parts_sourcing	Enables Field Service agents to request and source multiple parts. Agents can receive mobile notifications when part requests are raised by their peers.

Field Service Management plugins and descriptions (continued)

Plugin Name	Plugin	Description
		<p>Note: This plugin installs several system components such as tables, business rules, and scripts. For more information, see Advanced Part Sourcing components.</p>
Template Management for Field Service Management	com.snc.fsm_template_management	Enables the advanced configurations for work order templates to dynamically fetch information for work orders and create tasks independently for work orders.
Customer Service Install Base Management	com.snc.install_base	Enables customer service agents to easily trace issues back to the right product or instances of that product. Associates upstream entities such as interactions and cases with downstream entities such as work order or work order task.
Process Mining Content Pack for FSM	com.snc.fsm_process_optimization	Process Mining for Field Service Management creates business process flows from the work order task data in audit trails, allowing process owners to perform in-depth analysis and discover process insights to improve business outcomes.
Agent Schedule	com.snc.agent_schedule	Enables customer service agents and field service technicians to see work schedules and assignments and also add personal events such as meetings or appointments.
Appointment Booking	com.snc.appointment_booking	Enables setup and configuration for the appointment booking feature.
Assignment Workbench	com.snc.assignment_workbench	Use workbench to assign work to individual agents easily so that work gets done efficiently and effectively.

Field Service Management plugins and descriptions (continued)

Plugin Name	Plugin	Description
Service Management Core	com.snc.service_management.core	Adds the core Service Management items that enable other service-related plugins to work, such as Field Service Management, Facilities Service Management, and the custom-app creator.
Special Handling Notes	com.sn_shn	Enables users to quickly view important information about records.

Related topics

[Components installed with additional plugins for Field Service Management](#)

Quick start tests for Field Service Management

Validate that Field Service Management still works after you make any configuration change, such as applying an upgrade or developing an application. Copy and customize these quick start tests to pass when using your instance-specific data.

Field Service Management quick start tests are available when you enable the Field Service Management plugin (com.snc.work_management). Enable the demo data plugin (com.snc.work_management.demo) in a non-production instance to start using the quick start tests available with your application. Activate Field Service Contractor Management plugin (com.snc.fsm_contractor_management) to execute the External contractor related tests. You can also modify existing data and customize it to run the quick tests.

FSM: Field Service Management test suite

Test	Description	Release version
FSM: Create Initiate Qualify Dispatch and assign Work Order Task	<ul style="list-style-type: none"> • Create a work order. • Initiate and qualify a work order. • Dispatch a work order. • Assign a work order task to an agent. 	Madrid
FSM: Part Sourcing	<ul style="list-style-type: none"> • Source any part to an agent's stock room from the work order task. • Create a transfer order line for the part sourcing. • Use this part for any work order to consume it using the Part Usage action. 	Madrid

FSM: Field Service Management test suite (continued)

Test	Description	Release version
FSM: Part Usage	<ul style="list-style-type: none"> • Source any part to an agent's stock room from the work order task. • Use this part for any work order to consume it using the Part Usage action. 	Madrid
FSM: Questionnaire	Create a questionnaire and associate it with a work order task.	Madrid
FSM: Field Service Configuration	Verify that the default configuration such as task assignment method, qualification requirement, PDF summary and agent's ability to accept or reject tasks is preserved.	New York
FSM: Planned Maintenance	Create a planned maintenance work order with weekly interval time for printer maintenance.	New York
FSM: Appointment Booking Configuration	Verify that the default configuration for appointment booking is preserved and that the point of sale service and catalog item exists in the system.	New York
FSM: Create Work or Personal Schedules	Create personal or work schedule for agents.	Orlando
FSM: Field Service Property Settings	Verify that the field service system properties preserve expected values.	Orlando
FSM: Work Groups	Verify that field service agents can be added to work groups.	Orlando
FSM: Dynamic Scheduling - Preferred Technician assignment with mandatory parts reservation	<p>With Dynamic scheduling:</p> <ul style="list-style-type: none"> • Preferred technician should be picked for task assignment. • Mandatory parts should be reserved in the agent stock room. 	Paris

FSM: Field Service Management test suite (continued)

Test	Description	Release version
	<p>i Note: Activate Customer service management demo data plugin.</p>	
FSM: Create Time Card	Verify that a time card is created for an agent in the work order task.	Quebec
FSM: Create incidental	Verify that an incidental is created for an agent in the work order task.	Quebec
FSM: Onboarding contractor company	<p>Verify that a contractor company is onboarded with assignment group, external manager, and external agent.</p> <p>i Note: Activate Field Service Contractor Management plugin.</p>	Quebec
FSM: Onboarding contractor agent by external manager	Verify that an external contractor manager can onboard external agents from the Field Service Contractor Management portal.	Quebec
FSM: External contractor manager fulfil the work order task	Verify that a contractor manager or an agent is able to fulfil the assigned work order task.	Quebec
FSM: Assign work order task to Vendor group	Verify that a work order task is assigned to the external assignment group based on the defined criteria, such as task location and configuration parameters.	Quebec
FSM: Pause and Resume work order task	Verify that an agent can pause and resume work for a work order tasks.	Rome
FSM: Dynamic Scheduling - Assign technician with matching skills	With Dynamic Scheduling: Verify that a work order task is assigned to a technician who possesses all mandatory skills mentioned in the task.	Rome
FSM: Off boarding contractor agent by external manager	Verify that an external contractor manager can off board external agents from	Rome

FSM: Field Service Management test suite (continued)

Test	Description	Release version
	the Field Service Contractor Management portal.	
FSM: External contractor manager asset sourcing and usage	Verify that an external contractor manager is able to perform the following actions: <ul style="list-style-type: none"> • Request parts from stockroom. • Pick the part. • Close the transfer order. • Perform work using the part. 	San Diego
FSM: External contractor agent fulfil the work order task	Verify that a contractor agent is able to fulfil the work order task that is assigned by the external contractor manager.	San Diego
FSM: Capacity Scheduling - Assign work to field service agents based on capacity	Verify that the rules and values mentioned in the capacity definition and capacity assignment module are evaluated to assign work to the agent based on capacity.	Tokyo
FSM: Onboarding external contractor agent as additional manager for the external assignment group	Verify that when onboarding an external agent for the contractor company, you can assign the additional manager role to the agent.	Tokyo
FSM: Dispatcher Workspace - Assign crews to work order tasks that require a group of agents to work on them	<ul style="list-style-type: none"> • Verify that a dispatcher with the crew moderator role can create a crew in the Dispatcher Workspace. • Verify that a dispatcher with the crew moderator role can assign a work order task to the planned crew in the Dispatcher Workspace 	Tokyo
FSM: Work order task supports Multi-day task scheduling	Verify the Multiday task scheduling functionality: <ul style="list-style-type: none"> • Create Work order, work order task, and agent schedule records. • Select the Assign across schedule entries option in the work order task. 	Tokyo

FSM: Field Service Management test suite (continued)

Test	Description	Release version
	<ul style="list-style-type: none"> • Assign an agent to the work order task for which the task duration is more than a day. • Verify that work order task is assigned successfully to the agent and the estimated end time is populated correctly. 	
<p>Verify creating a work order from a case and assigning a work order task to an agent from CSM/ FSM Configurable Workspace</p>	<ul style="list-style-type: none"> • Verify you can create a work order from a case. • Qualify the work order and verify a work order task is created. • Assign the work order task to an agent and verify the agent it is assigned to is updated correctly. 	<p>Xanadu</p>
<p>FSM: Appointment Booking unified UI modal validation in platform</p>	<ul style="list-style-type: none"> • Create work order and work order task. • Launch Seismic Appointment Booking calender in Platform. • Verify that Today and Next week options displays the correct calender. 	<p>Yokohama</p>
<p>Create and qualify a work order, then assign the work order from Dispatcher Workspace as a dispatcher</p>	<ul style="list-style-type: none"> • As a dispatcher, from the CSM/FSM Configurable workspace go to the List view and create a new work order. • Then as an administrator, qualify the work order and verify if a work order task is created. • Then as a dispatcher, assign the work order task to a Field Service agent and verify the Assigned to field is update correctly. 	<p>Yokohama</p>

FSM: Field Service Management test suite (continued)

Test	Description	Release version
Clone a work order task	<ul style="list-style-type: none"> From from the CSM/FSM Configurable workspace, open any work order task record page. Select Clone Work order task, and verify that a new work order task is created with all details populated from the original work order task. 	Yokohama

Related topics

[Quick start tests](#) 

Setting up your workforce

Setting up your workforce involves configuring users, locations, territories, and other foundational data.

Configuration overview

The steps for setting up your workforce are:

1. [Configure the Google Maps API keys](#)

Configure the Google Maps API keys to enable users to view maps within the Field Service Management (FSM) application.

2. [Configure locations and territories](#)

Define specific locations and territories that users or groups are responsible for, allowing efficient task assignment and resource allocation. Effective setup of locations and territories optimizes workforce operations and enhances productivity.

3. (Optional) [Configuring Field Service with Service Locations](#)

Install and set up Field Service with Service Locations to add and verify service locations on demand.

4. [Configuring users](#)

You can import users using guided setup or create users. You can also create user groups that contain all the roles required by each type of user, and then assign users to those groups.

5. (Optional) [Configuring Field Service Territory Planning](#)

Field Service Territory Planning identifies the best matched territory for a work order task based on conditions that you set. You can then assign tasks to the individual agent or group best positioned to execute a service call based on the associated territories.

6. [Configure agent calendars](#)

Create events that will display on the agent calendar. Users with the agent calendar administrator role can perform several calendar configuration tasks.

7. (Optional) [Configuring Field Service Crew Operations](#)

Create, modify, and enable crews and their requirements to complete work order tasks that require a crew of agents.

8. (Optional) [Configuring contractor capabilities](#)

Set up interactions with contractor companies, their managers, and agents with Contractor Management. Additionally, Contractor Marketplace allows you to push task to a marketplace when internal agents are unavailable.

9. (Optional) [Configuring Field Service Capacity and Reservations Management](#)

Configure Field Service Capacity and Reservations Management to manage the distribution and assignment of the work capacity for work order tasks.

10. (Optional) [Configuring Workforce Optimization for Field Service](#)

Enable Workforce Optimization for Field Service and configure settings to use the Scheduling, Teams, and Coaching applications.

11. (Optional) [Configuring denormalized tables in Field Service Management](#)

Denormalized databases are enabled by default, they collapse information stored in multiple tables into a single table. This collapsing of relevant data improves Field Service Management load time.

Configuring Google Maps API keys


Google Maps API keys are essential for accessing and utilizing the features provided by the Google Maps Platform in Field Service Management.

As an administrator, you can set up Google Maps API keys for the FSM features.



To control map usage and manage costs effectively, enable usage limits on the account to turn off the API when the limit is reached.

If API keys are already set up, navigate to **All > System Properties > Google maps** to enter the API keys.

Note:

Google designated the Places API, Directions API, and Distance Matrix API as Legacy services. The newer versions of these services are Places API (New) and Routes API. For more information see, [Changes to Google Maps Platform automatic volume discounts, monthly credit, and services transitioning to Legacy status](#) .

You can't generate new API keys for these legacy services. However, you can continue using these services with the existing API keys. Enable the new APIs from Google Console to continue using the API services without any issues.

If you create new Google API keys after March 1, 2025, you must enable the new APIs from Google Console and upgrade to a supported release version to ensure compatibility. For more information on the affected versions, resolution, and compatible versions, see [KB2111488](#)  and [KB2112054](#) .

Configuration overview

The steps for setting up Google Maps API keys are:

1. Setting up system properties

Field Service Management requires Google Maps configuration for users to view maps and operate location features properly.

2. Setting client and server API keys

Field Service requires Google Maps API configuration for users to operate location features properly.

System properties for Google Maps in FSM

Field Service Management requires Google Maps configuration for users to view maps and operate location features properly.

Before you begin

[Set up Google Maps API](#) 

Role required: wm_admin

Procedure

Use the following table to match FSM features with the property navigation to enable Google Maps for estimated travel time and distance calculations.


Google Maps APIs for Field Service capabilities

Field Service requires Google Maps API configuration for users to operate location features properly.



Google allocates API licenses to enable Google Maps. FSM with geolocation requires that you set up two API keys for client and server.

Use the following table to match Google Maps APIs with FSM capabilities.





Note:

Google designated the Places API, Directions API, and Distance Matrix API as Legacy services. The newer versions of these services are Places API (New) and Routes API. For more information see, [Changes to Google Maps Platform automatic volume discounts, monthly credit, and services transitioning to Legacy status](#) .

You can't generate new API keys for these legacy services. However, you can continue using these services with the existing API keys. Enable the new APIs from Google Console to continue using the API services without any issues.

If you create new Google API keys after March 1, 2025, you must enable the new APIs from Google Console and upgrade to a supported release version to ensure compatibility. For more information on the affected versions, resolution, and compatible versions, see [KB2111488](#)  and [KB2112054](#) .

FSM capabilities matrix

FSM capability	Description	Corresponding Google Maps API
Geolocation	The auto-routing or auto-dispatch functions need this license or JavaScript API Key to calculate precise travel time estimates. Without these values, precise driving times can't be calculated, and it uses rough estimates or fixed times instead.	Geocoding API 
Map Pages	Map pages display ServiceNow data graphically on a Google map page based on the location data that you give.	Maps Javascript API 
Optimize Route and Show Route	Field service agents can view optimized routes for tasks assigned to them on a given day or even the map a customer sees to track the technician on the way to their house. Field service dispatchers can view optimize routes for tasks assigned to members in their assignment groups. Field service managers can view optimize routes for tasks assigned to members in the groups they manage.	Routes API  (previously known as Distance Matrix API and Directions API)
Places Autocomplete	Field Service Management utilizes the Places Autocomplete feature to enable type-ahead search behavior in the Google Maps search field.	Places API (New)  (previously known as Places API)

Configuring locations

Territory management determines, by geographical location, the individual or group best positioned to execute a service call.

Territory management allows the assignment of a set of geographical locations to an individual or group. This assignment creates a territory. Territory management is based on a hierarchy where all locations are attached to a parent location. Top-level locations do not have a parent location. Territory Management is activated automatically with Field Service Management.

Configuration overview

The steps for configuring locations are:

1. Adding locations

You can add locations individually or you can perform a bulk import using a CSV, XLS, or XML file.

2. Assign locations to users and user groups

Territory management allows Field Service Management administrators to assign locations to users and user groups.

Related topics

[Assign a location to a user](#)

[Assign a location to a group](#)

Adding locations

Location represents a geographical area that helps administrators to create different groups and assign tasks to those groups based on the location.

Locations are used to calculate distances and travel times and are used to determine which agent is closest to a task assignment. Define the home locations of all Field Service technicians and the current locations of assets in the field. Define the locations that will be covered by Field Service dispatchers and technicians in your organization. You can configure different levels of locations in a parent-child hierarchy. You can add locations individually or you can perform a bulk import using a CSV, XLS, or XML file. For more information about adding locations to user groups, see [Assign a location to a group](#).

Related topics

[Assign a location to a user](#)

[Assign a location to a group](#)

Locations in Field Service Management

Location represents a geographical area that helps administrator to create different groups and assign tasks to those groups based on the location.

Work locations

Field Service Management relies on defined locations for qualifying work orders and tasks, and assigning dispatchers and agents. As part of setting up the application, you will define your locations. You can then create qualification, dispatch, and assignment groups based on those locations.

Related topics

[Configuring locations](#)

Assign a location to a user

Territory management allows field service management administrators to assign locations to users.

Before you begin

Role required: admin

About this task

This creates a territory, or set of locations covered by a given user. The association helps the system to determine which users can fix problems in particular locations.

Procedure

1. Navigate to **All > Territories > Users**.
2. Open a user record.
3. In the **Locations Covered** related list:
 - Click **Edit** to add an existing location to the user.
 - Click **New** to create a new location to associate to the user.
 Territory management at the user level is not used for automations.

Assign a location to a group

Territory management allows field service management administrators to assign locations to groups of users.

Before you begin

Role required: admin

About this task

This creates a territory, or set of locations covered by a given group. The association helps the system to determine which groups can fix problems in particular locations.

Procedure

1. Navigate to **All > Territories > Groups**.
2. Open a group record.
3. In the **Locations Covered** related list:
 - Click **Edit** to add an existing location to the group.
 - Click **New** to create a new location to associate to the group.

Note:

To determine which group covers a given location, the system checks the location hierarchy to see if there are any groups assigned to the location. If not, the system checks the upper level of hierarchy.

Configuring Field Service with Service Locations

Install and set up Field Service with Service Locations to add and verify service locations on demand.

The following tasks provides general steps to set up the Field Service with Service Locations feature.

Configuration overview

The steps for configuring Field Service with Service Locations are:

1. [Activate Field Service with Service Locations Support](#)

You can activate the Field Service with Service Locations Support (com.snc.fsm_service_locations) plugin if you have the admin role. The application includes demo data and installs related plugins if they are not already installed.

2. [Mapping a service location to a parent location](#)

Map a service location to a parent location by setting parent determination rules.

3. Set the default validation option for service locations

Set the default validation option that will be used when adding locations to a work order or work order task.

4. Add Service Locations functionality to a work order catalog item in the Customer Service Portal

Add Service Locations functionality to a work order or work order task catalog item to enable the ability to add a location on demand.

5. Set the limit of maximum service locations added per day

Set the limit of maximum service locations that can be added per day by an external user.

6. Set the default location on a map

Set the initial default location for a service location on a map.

Activate Field Service with Service Locations Support

You can activate the Field Service with Service Locations Support (com.snc.fsm_service_locations) plugin if you have the admin role. The application includes demo data and installs related plugins if they are not already installed.

Before you begin

Role required: admin

About this task

Activation of Field Service with Service Locations Support (com.snc.fsm_service_locations) plugin activates Field Service Management (com.snc.work_management) and sn-fsm-components (com.sn_fsm_components) plugins if they are not already active.

For more information, see [Field Service with Service Locations Support components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service with Service Locations Support plugin (com.snc.fsm_service_locations) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

i Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Mapping a service location to a parent location

Map a service location to a parent location by setting parent determination rules.

Parent determination uses a business rule that is stored in the *wm_location_parent_lookup_rule* table to map a service location to its parent location. All service locations are mapped to their corresponding parent location. The system checks the combination of fields and assigns the parent location to a work order or work order task.

Rules are executed in the following order to determine a parent location when a new service location is added:

- 1. Zip / Postal Code:** The corresponding parent location is assigned when a zip code and country values match.
- 2. Min Zip / Postal Code and Max Zip / Postal Code:** When a zip code and country values fall under the defined minimum and maximum zip code range, then the corresponding parent location is assigned.
- 3. City and State:** When city, state, and country values match, then the corresponding parent location is assigned.
- 4. State:** When state and country values match, then the corresponding parent location is assigned.

Note:

The **Country** name is the default selection for all the criteria.

For more information, see [Create parent determination rules for service locations](#).

Related topics

[Setting ad-hoc locations in work orders and work order tasks](#)

Create parent determination rules for service locations

Create parent determination rules that facilitate assignment of a parent to a service location.

Before you begin

The Field Service with Service Locations support plugin must be active to enable setting the parent determination rules.

Role required: `wm_admin`


Procedure

- 1.** Navigate to **All > Field Service > Administration > Service Location Parent Configuration**.
- 2.** On the Parent Determination Configuration page, click **New**.
- 3.** Choose the determining factor for the rule to use and provide the value.

The **Country** and **Parent** fields are required.

Note:

Once you select the determining criterion, the other fields are grayed out and cannot be selected.

- 4.** Enter the **Country** name in the text field.
- 5.** In the **Parent** field, click the Lookup using list icon () and select the parent location from the region list.

6. Click **Submit**.

Note:

If you add a rule that already exists in the `wm_location_parent_lookup_rule` table, an error message displays.

Result

The parent location is configured and can be associated with a service location.

Set the default validation option for service locations

Set the default validation option that will be used when adding locations to a work order or work order task.

Before you begin

Set the `sn_fsm_service_loc.max_new_location_per_day` property to limit the addition of service locations per day. For more information, see [Set the limit of maximum service locations added per day](#).

Role required: admin

Procedure

1. Navigate to **All > Field Service > Administration > Configuration**.
2. On the Field Service Configuration page, navigate to **Add-ons > Service Locations**.
3. In the **Validation** field, choose the default validation option.
 - **Using map:** Add locations using a Google map interface. For information about selecting the default location when the map is opened, see [Set the default location on a map](#).
 - **Without map:** Provide location details to add locations without map. The location details will be validated using the `global.ServiceLocationAddressValidationExtPoint` API.
 - **No validation:** The provided location details will not be validated.
4. Click **Save**.

Add Service Locations functionality to a work order catalog item in the Customer Service Portal

Add Service Locations functionality to a work order or work order task catalog item to enable the ability to add a location on demand.

Before you begin

Role required: catalog_admin or admin

Procedure

1. Navigate to **All > Service Catalog > Catalog Definitions > Record Producers**.
2. Select the record producer for the catalog item for which you want to include the ability to add ad hoc service locations.
3. In the Variable Sets related list, click **Edit**.
4. Move `sn_service_location_variable_set` to the Variable Sets list.
5. Click **Save**.

Result

Ad hoc locations can now be included in the modified work order or work order task catalog item.

Set the limit of maximum service locations added per day

Set the limit of maximum service locations that can be added per day by an external user.

Before you begin

Role required: admin

Note:

The maximum limit to create locations using the Field Service with Service Locations feature is applicable only for a user with *snc_external* role.

Procedure

1. Navigate to **All > Field Service > Administration > Properties**.
2. In the **Service Locations Properties for Field Service Management** field on the Field Service Management Properties form, enter the limit.
The default value is 10.
3. Click **Save**.

Set the default location on a map

Set the initial default location for a service location on a map.

Before you begin

The **Using map** validation option must be set before you can configure the initial default location on a map. See [Set the default validation option for service locations](#).

Role required: admin

Procedure

1. Navigate to **All > Field Service > Administration > Configuration**.
2. In the Field Service Configuration page, navigate to **Add-ons > Service Locations**.
3. In the **Validation** field, select **Using map**.
4. Choose the default location from which the map will initialize from the Initial rendering location list.
 - **Browser location**
 - **Asset address**
 - **Contact/Caller address**
 - **Company address**
5. Click **Save**.

Result

The map loads with the selected default location.

Configuring users

As an administrator, you can configure user groups and individual users. A user is an individual who is a member of your Field Service organization and can access your instance.

Configuration overview

The steps for configuring users are:

1. Set up Field Service user groups

Simplify user administration by assigning roles to user groups instead of individual users. Create user groups that contain all the roles required by each type of user, and then assign users to those groups. The users inherit all the roles assigned to the user group.

2. Assign additional managers to user groups when Workforce Optimization for Field Service is installed

Appoint additional managers for your user groups when Workforce Optimization for Field Service is active, ensuring the continuity of work in the absence of a manager.

3. Create a user [↗](#)

Create users using the *ServiceNow AI Platform* user administration feature or during guided setup.

Setting up Field Service user groups

Field Service Management groups are sets of users or agents, who perform specific tasks. Configuring your field service groups efficiently enables you to align the right skills and resources to the right tasks.

There are several types of user groups that serve different capabilities. The most common types include user groups for agents and dispatchers. These user groups are essential for organizing and managing the tasks and responsibilities of field service agents.

Additionally, you can create optional group types based on your specific needs, including user groups for initiators, managers, territory planners, and more. For example, you can create user groups for qualifiers to implement an additional qualification step to review and approve work orders. By setting up these groups, you can assign the appropriate roles and users to each group. The roles assigned to the group are automatically inherited by the users within that group, so you don't need to individually assign roles to each user.

For more information about Field Service Roles, see [Roles installed with Field Service Management](#).

For information about assigning a role to a user group, see [Assign a role to a group](#) [↗](#).

Location also plays an important role in configuring field service user groups. It ensures that qualifiers, dispatchers, and agents only engage with tasks that align with their assigned locations and groups.

There are a few good practices when creating groups:

- Create one group for administrators and assign the admin role to this group only.
- Create as many groups as needed in your organization. For example, create a staff group for each geographic location, function, skills, and product models, such as building maintenance or building security. Assign the necessary users to those groups, and then assign the staff role to those groups.

Example user group setup.

User group setup

User	Locations	User Groups	User Group Roles	Group Relationship
Agent1	San Diego	SD Agents	wm_agent	Receives work order tasks from SD Dispatchers
Agent2	Los Angeles	LA Agents	wm_agent	Receives work order tasks from LA Dispatchers
Agent3	San Jose	SJ Agents	wm_agent	Receives work order tasks from SJ Dispatchers
Agent4	San Francisco	SF Agents	wm_agent	Receives work order tasks from SF Dispatchers
Dispatcher1	San Diego	SD Dispatchers	wm_dispatcher	Assigns work order tasks to SD Agents
Dispatcher2	Los Angeles	LA Dispatchers	wm_dispatcher	Assigns work order tasks to LA Agents
Dispatcher3	San Jose	SJ Dispatchers	wm_dispatcher	Assigns work order tasks to SJ Agents
Dispatcher4	San Francisco	SF Dispatchers	wm_dispatcher	Assigns work order tasks to SF Agents
Qualifier1	San Jose San Francisco	NorCal Qualifiers	wm_qualifier	Qualifies work order tasks for SJ and SF Dispatchers to assign to SJ and SF Agents
Qualifier2	San Diego Los Angeles	SoCal Qualifiers	wm_qualifier	Qualifies work order tasks for SD and LA Dispatchers to assign to SD and LA Agents

Setting up user groups for agents








Set up user groups for agents to execute the dispatched tasks for specific locations with the required parts and skills to work on the assigned task.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Field Service > Group Management > Work Groups**.
2. Click **New**.
3. On the form, enter the name for the user group.
4. Right-click and save.
5. Use the following tabs to add additional information to the agent user group.

Option	Description
<p>Roles</p>	<p>Assign one or more roles from the list of available roles to the user group.</p> <p>For more information on roles and assigning them to user groups, see Roles installed with Field Service Management and Assign a role      </p>
<p>Group Members</p>	<p>Assign one or more agents from the list of available agents to the user group.</p> <p>For more information on assigning group members, see Add a user to a group .</p>
<p>Groups</p>	<p>Create a child user group.</p>
<p>Skills</p>	<p>Assign one or more skills from the list of available skills to the user group.</p> <p>For more information on assigning skills, see Manage Field Service and Customer Service skills.</p>
<p>Locations Covered</p>	<p>Assign one or more locations from the list of locations to the user group.</p> <p>For more information on assigning locations to a group, see Assign a location to a group.</p>
<p>Covered by Dispatch Groups</p>	<p>If dispatch groups have been created, assign one, or more dispatch groups to the agent user group.</p>
<p>Product Models</p>	<p>Assign the equipment used by the group.</p>

6. Click **Update**.

Setting up user groups for qualifiers








Create a qualifier user group to review and qualify work orders to ensure that the work order tasks are created.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Field Service > Group Management > Qualifier Groups**.
2. Click **New**.
3. On the form, fill in the fields.
4. Right-click and save.
5. Use the following tabs to add additional information to the agent user group.

Option	Description
Roles	<p>Assign one or more roles from the list of available roles to the user group.</p> <p>For more information on roles and assigning them to user groups, see Roles installed with Field Service Management and Assign a role      </p>
Group Members	<p>Assign one or more qualifiers from the list of available qualifiers to the user group.</p> <p>For more information on assigning group members, see Add a user to a group .</p>
Groups	<p>Create a child user group.</p>
Locations Covered	<p>Assign one or more locations from the list of locations to the qualifier user group.</p> <p>For more information on assigning locations to a group, see Assign a location to a group.</p>

6. Click **Update**.

Setting up user groups for dispatchers

Set up dispatcher user groups to dispatch tasks to agent user groups in order to meet the needs of specific areas.













Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Group Management > Dispatch Groups**.
2. Click **New**.
3. On the form, fill in the fields.
4. Right-click and save.
5. Use the following tabs to add additional information to the agent user group.


For more information about Field Service Roles, see [Roles installed with Field Service Management](#).

Option	Description
Roles	Assign one or more roles from the list of available roles to the user group. For more information on roles and assigning them to user groups, see Roles installed with Field Service Management and Assign a role      
Group Members	Assign one or more dispatchers from the list of available dispatchers to the user group. For more information on assigning group members, see Add a user to a group  .
Groups	Create a child user group.
Locations Covered	Assign one or more locations from the list of locations to the dispatcher user group. For more information on assigning locations to a group, see Assign a location to a group     
Assignment Groups Covered	Assign one or more agent groups to the dispatch user group.

6. Click Update.

Additional user groups

You can set up other types of user groups.

In addition to setting up Field Service specific user groups, you can set up user groups for managers and initiators. For example, you can set up an initiator user group to create a new work order or you can create a work order from other record types, such as problem, incident, change, or project task. For more information on setting up other types of user groups, see [Create a group](#) .

Example of additional user groups

User	Locations	User Group	User Group Roles	Manager-Initiator Group Relationship
Manager 1	San Diego	SD Managers	wm_manager	Manages SD Initiators
Manager 2	Los Angeles	LA Managers	wm_manager	Manages LA Initiators

Example of additional user groups (continued)

User	Locations	User Group	User Group Roles	Manager-Initiator Group Relationship
Initiator 1	San Diego	SD Initiators	wm_initiator	Creates work orders for SD Qualifiers
Initiator 2	Los Angeles	LA Initiators	wm_initiator	Creates work orders for LA Qualifiers

Assign additional managers to user groups when Workforce Optimization for Field Service is installed

When Workforce Optimization for Field Service is active, you can appoint additional managers for your user groups, ensuring the continuity of work in the absence of a manager.


Before you begin

Role required: sn_wfo.admin

About this task

[Workforce Optimization for Field Service](#) must be active to add additional managers to user groups.

Procedure

1. Navigate to **All > Agent Group Management > Additional Managers**.
2. Select **New**.
3. In the **Assignment Group** field, use the lookup icon to select or create a user group. Make sure that the user has the wm_manager role. For more information on assigning roles to users, see [Assign a role to a user](#) .
4. In the **Manager** field, use the lookup icon to select or create a user.
5. Select **Submit**.
You can assign multiple managers to a user group by repeating the steps for each manager.

Manage Field Service and Customer Service skills

Field Service and Customer Service managers can create or edit skills, assign skills to agents, and view agents with a specific skill.

Users with the wm_manager role (Field Service Management) or sn_customerservice_manager (Customer Service Management) can manage agent skills.

Navigate to **Field Service > Manager > Manage Skills** or **Customer Service > Manage Skills** to access the Manage Skills form. This form displays a list of the available skills and the agents in the manager's assignment groups.

Each skill in the All Skills list on the left side of the screen includes the skill name and the number of users who are assigned that skill. Each user in the user section on the right side of the screen is represented by a tile that includes the user's name, assignment group, address, and a list of the skills currently assigned.

From this form, managers can:

- Create new skills by clicking **New Skill** and adding the skill name and description.
- Edit existing skills by clicking the pencil icon to the left of the skill name.
- View all agents by clicking **All Users**.
- View the agents who are assigned a specific skill by clicking the skill name.
- Assign a skill to an agent using the following methods:
 - Click a skill in the skills list and then click **Assign/Remove Users**. To add a skill, click the desired user. The tile for the selected user turns blue. To remove a skill, click a user who has the skill already assigned. If the skill is assigned, the user's tile is blue.
 - In the user's tile, click the down arrow on the **Skills** button. Assign multiple skills to a single user by checking the boxes for the desired skills.

There are two default skills: Field Service Skill and Customer Service Skill. These are parent skills; other skills created by the manager are stored under these parent skills.

Mandatory skills

Use the mandatory skills feature to identify any skills that are required for agents and technicians to work on customer service cases and field service work orders and tasks. Then assign cases and tasks to agents and technicians who have those required skills.

When assigning cases, work orders, and work order tasks, the assignment tools consider the mandatory skills, filter out agents and technicians who don't have these skills, and then rank the remaining agents.

- If agents with the mandatory skills are available, the cases and tasks are assigned to these agents.
- If agents with the mandatory skills aren't available, then agents with any other, non-mandatory skills identified in the cases and tasks are ranked and assigned.

Field service dispatchers (wm_dispatcher), field service technicians (wm_agent), customer service managers (sn_customerservice_manager), and customer service agents (sn_customerservice_agent) can specify both skills and mandatory skills for cases and tasks.

Mandatory skills are an optional feature. Mandatory skills can be identified on the assignment workbench. In addition to the **Skills** list, the assignment workbench includes a **Mandatory Skills Added** list. Agents are ranked in the workbench based on the number of skills that match the skills identified in the Skills list. If the mandatory skills feature is being used, then the agents displayed are filtered by the skills listed in the Mandatory Skills Added list and then ranked by the other matching criteria.

Related topics

[Use the assignment workbench](#) 

Configuring the mandatory skills feature

Configure the mandatory skills feature for use with the Customer Service Management and Field Service Management applications.

Mandatory skills is an optional feature included with the Customer Service Management and Field Service Management plugins. Use the steps below to configure this feature with the desired application.



Customer Service Management configuration

To configure the mandatory skills feature for use with Customer Service Management:

- In the Case form:
 - Configure the form layout to use the Task Skills [task_m2m_skill] table.
 - In the Task Skills table, set the **Mandatory** field to **True** to identify skills that are mandatory to complete a task.

Note:

The Case form should use either the **Skills** field or the Task Skills table, but not both.

- [Optional] For existing cases that have data populated in the **Skills** field on the Case form, run the **Migrate Skills to Task Skill M2M** script to move this data to the Task Skills table. By default, this fix script migrates the skills from existing entries in the Case, Work Order, and Work Order Task tables to the Task Skills table. For more information, see [Migrate skills to the Task Skill table](#).
- If you are using the [assignment workbench](#) , replace the **Matching Skills** matching criteria with the **Matching Skills - Mandatory Skills Support** matching criteria. For more information, see [Matching rules for case assignment](#) .

Field Service Management configuration

To configure the mandatory skills feature for use with Field Service Management:

1. Enable the `work.management.use.mandatory.skills` system property.
2. Configure the Work Order form and the Work Order Task form to use the Task Skills [task_m2m_skill] table.
3. [Optional] For existing work orders and tasks that have data populated in the **Skills** field on the Work Order and Work Order Task forms, run the **Migrate Skills to Task Skill M2M** script to move this data to the Task Skills table. By default, this fix script migrates the skills from existing entries in the Case, Work Order, and Work Order Task tables to the Task Skills table and configures them as optional skills. For more information, see [Migrate skills to the Task Skill table](#).
4. If you are using dynamic scheduling, update the task filter for the dynamic scheduling configuration and replace the **Matching Skills for Dynamic Scheduling** matching criteria with the **Matching Mandatory Skills for Dynamic Scheduling** matching criteria. For more information, see [Create a task filter](#).

For configuring optional skills, navigate to **Field Service > Administration > Configuration**, click the **Assignment** tab and set **Auto-selection of agents for tasks requires them to have skills** to one of the following:

- All - indicates that the agent must have all optional skills listed in the task for task assignment.
- Some - indicates that the agent must have at least one optional skill listed in the task for task assignment.
- None - indicates that the agent is not required to have any optional skill.

Mandatory Skills system properties

The **Migrate Skills to Task Skill M2M** script migrates skills from existing tasks to the Task Skills [task_m2m_skill] table. Configure the task tables included in the migration using the `skills_management.migration` system property.

The mandatory skills feature adds the following system properties.

Note:

To open the System Property [sys_properties] table, enter `sys_properties.list` in the navigation filter.

Properties installed with Mandatory skills feature

Property name	Description
work.management.use.mandatory.skills	<p>Enables the mandatory skills feature and indicates that the Task Skills [task_m2m_skill] table is being used for work orders and work order tasks.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
skills_management.migration	<p>Lists the task tables to migrate to the Task Skills [task_m2m_skill] table when an admin runs the Migrate Skills to Task Skill M2M script.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: wm_task,customerservice_case,wm_order
com.snc.skills_management.task_skill_migration.tables	<p>Contains a list of tables for which the Skills field has already been migrated to the Task Skills [task_m2m_skill] table. If the table name is listed in this property, the data has been migrated and will not be migrated again.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: none

Migrate skills to the Task Skill table

Migrate data from the **Skills** field to the Task Skills table to utilize mandatory skills support for executing tasks in a case or work order.

Before you begin

Role required: wm_admin, admin

About this task

The Task Skills [task_m2m_skill] table stores skills and mandatory skills.

In the Customer Service Management application, the assignment workbench uses the Task Skills table instead of the **Skills** field in the Case table to display agents based on the evaluation criteria for task assignments.

In the Field Service Management application, the work order task assignments done using auto-assignment, dynamic scheduling, and Dispatcher Workspace use the Task Skills table instead of the **Skills** field in the Work Order and Work Order Task tables to assign agents for task assignments.

Procedure

1. **Add a system property**  with the following settings.

2. In the **Type** field, set the value to **true**.
3. Click **Update**.
4. Navigate to **System Definition > Fix Scripts** and run the **Migrate Skills to Task Skill M2M** fix script.
The skills are copied to the `task_m2m_skill` table. The name of the table from which the skills are copied gets appended to the `com.snc.skills_management.task_skill_migrated_tables` system property. When the script is run again, it ignores all tables from which skills have already been migrated.

Configuring Field Service Territory Planning

Field Service Territory Planning identifies the best matched territory for a work order task based on conditions that you set. You can then assign tasks to the individual agent or group best positioned to execute a service call based on the associated territories.

Configuration overview

As a territory planner, you can configure and use territories in Field Service Management through the following procedures:

1. Activate Field Service Territory Planning

You can activate the Field Service Territory Planning plugin (`com.snc.fsm_territory_planning`) for Field Service Management if you have the admin role.

2. Creating geographies

Create Field Service territories and their geographies based on your requirements.

3. Configuring resources for territories

Assign agents or crews permanently or temporarily to a territory so you can assign tasks to resources available to work in the territory.

4. Enable the Field Service territory model

Enable the Field Service Management territory model to keep a record of territories and their associated resources, such as dispatch groups, assignment groups, and qualification groups.

5. Field Service Territory Planning console properties

Use the territory planning components and properties to customize workflow based on your requirements.

For more information about setting up Territory planning in the CSM/FSM Configurable workspace, see [Configuring Field Service Territory Planning Console](#).

Related topics

[Managing territories and agents from Territory Planning console](#)

[Field Service Territory Performance Analytics dashboard](#)

Activate Field Service Territory Planning

You can activate the Field Service Territory Planning plugin (`com.snc.fsm_territory_planning`) for Field Service Management if you have the admin role. The application includes demo data and installs related applications and plugins if they are not already installed.

Before you begin

Field Service Territory Planning requires the installation of Dispatcher Workspace plugin (com.snc.uib.fsm_dispatcher_workspace) to access the Territory Planning console.

Role required: admin

About this task

Activation of Field Service Territory Planning activates Field Service Management (com.snc.work_management) and Territory Planning (com.snc.territory_planning) plugins if they are not already active.

The following items are installed with Field Service Territory Planning:

- Roles
- Tables
- Script includes
- Business rules
- Properties
- Query rules

For more information, see [Field Service Territory Planning components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Territory Planning plugin (com.snc.fsm_territory_planning) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Result

The Field Service Territory Planning plugin when activated successfully adds the default territory model, `Field_Service_Territories` to the Field Service configurations, inside the Add-ons tab.

Note:

You must activate the `Field_Service_Territories` model after setting up your territories to schedule work order tasks based on territories. For more information, see [Enable the Field Service territory model](#).

Creating geographies

Create geographies and assign them to territories to efficiently schedule and assign the most appropriate agents and crews for work order tasks.

You can create three types of geographies for a territory. Understanding the importance of each type is vital for managing territories effectively.

- **GeoJSON:** GeoJSON geography type lets you import a GeoJSON file or draw the boundaries using shapes like polygons or circles in the map. It's special because it helps visualize territories on a map and is essential for making sure tasks are assigned to the right places. So, it's like a map tool that ensures work orders or tasks are matched accurately to specific geographic areas.
- **Matching attributes:** Define a geography based on certain characteristics such as city, state, country, or ZIP code. For example, you can create a territory that includes all tasks in a particular city or within a specific ZIP code range. Matching attributes provide a precise and criteria-based method for outlining territories without the need for visual mapping.
- **Composite geography:** Define a composite geography by combining or amalgamating different geographies into a single, comprehensive geography. This allows you to create a larger geography that encompasses the combined areas of several smaller geographies.

Creating a GeoJSON geography

Create a GeoJSON geography by importing GeoJSON co-ordinates or drawing shapes directly on the map.

Create a GeoJSON geography

Create a geography of type GeoJSON.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

Use GeoJSON geography type to accommodate scenarios where detailed geo-spatial information is available externally, enabling organizations to incorporate diverse geographic datasets into the planning processes.

Note:

For effective task assignments using Schedule Optimization, it is recommended to use consistent shapes (like polygons or circles) and avoid overlapping or intersecting geographies to ensure accurate results.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Geography**.
2. In the **Territory Geographies** page, select **New**.
3. On the form, fill in the fields.

Territory Geography

Field	Description
Name	Name of the geography.
Geography type	Select GeoJSON .
GeoJSON	Use the GeoJSON format for encoding variety of geographical data structures. GeoJSON supports the geometry types such as polygon, multi-polygon, and circle.

4. Select **Submit**.

The geography of type GeoJSON is created based on the given coordinates.

Result

After creating a GeoJSON geography, connect it to a territory for work order management; the associated territory will be listed in the **Territories** related list when you open the geography record. The geography of GeoJSON type appears visually on the map when its territory is selected in the Territory Planning console.

What to do next

Link the geography to a territory. For more information, see [Create a Field Service territory](#).

Create a GeoJSON geography in Territory Planning console

Draw boundaries on the map to define your geographic areas and create GeoJSON geographies. These geographies not only give you a clear visual on the map but also used task scheduling.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner


About this task

Allows you to interactively draw shapes such as polygons or circles directly on the map, streamlining the process of creating territories for effective task assignment. If necessary, you can create a multi polygon based geography by drawing multiple polygons on the map. For example, if the geographic area for a territory comprises water and land, you can select multiple land areas spread across the water body to define a territory geography.

Note:



For effective task assignments using Schedule Optimization, it is recommended to use consistent shapes (like polygons or circles) and avoid overlapping or intersecting geographies to ensure accurate results.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. In the Territories panel, select **Create Territory**.
The Create New Territory page appears.
3. In the Geography field, select the New Geography for Territory icon () to draw a geography.
4. Select the drawing method.
 - To draw a geography using an existing territory, choose **Draw using territory** and select the desired territory from the list in the Territories panel.
 - To search for an area on the map, by entering a location in the Search address bar, select **Draw on map**.

Note:

To create a geography based on the presence of resources (Agents, Crews, or Assets), select the desired resources from the overlay options displayed on the map.

5. Select the drawing tool.
 - To draw a boundary area or multiple areas, use the polygon shape icon ()
 - To define a geography with a specific radius, use the circle shape icon ()
6. In the Name field, enter the name for the geography.
A GeoJSON script is automatically generated.
7. Click **Save**.
The GeoJSON geography is created based on the selected area on the map.

Result

After creating a GeoJSON geography, connect it to a territory for work order management; the associated territory will be listed in the **Territories** related list when you open the geography record. The geography appears visually on the map when its territory is selected in the Territory Planning console.

What to do next

Link the geography to a territory. For more information, see [Create a Field Service territory](#).

Create a matching attributes geography

Creating a geography with matching attributes involves defining geographies based on specific criteria such as city, state, country, or ZIP code.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

Matching attributes provide a precise and criteria-based method for outlining geographies for scheduling without the need for visual appearance. It's a way to categorize and group geographies based on shared attributes, streamlining the process of managing work orders or tasks within those defined criteria.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Geography**.
2. In the **Territory Geographies** page, select **New**.
3. On the form, fill in the fields.

Territory Geography

Field	Description
Name	Name of the geography.
Geography type	Select Matching Attributes .

4. Select **Submit**.
5. Open the geography record to add the matching attributes.
6. In the **Matching Attributes** related list, select **New**.
 - a. In the **Type** field, select a condition to confine the geography boundary.
For example, Zip/Postal Code is equal to.
 - b. In the **Zip/Postal Code** field, enter a zip or postal code.
 - c. In the **City** field, enter a city name.
 - d. In the **State** field, enter a state name.
 - e. In the **Country** field, enter a country name.
7. Select **Update**.
The geography with matching attributes is created.

Result

This geography when associated with a territory displays the territory information in the **Territories** list. It does not have visual appearance on the map when its territory is selected in the Territory Planning console.

What to do next

Link the geography to a territory. For more information, see [Create a Field Service territory](#).

Create a composite geography

Create a composite geography by combining different geographies into a single, powerful view for efficient planning. You can streamline tasks and optimize resources using a composite geography.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

Composite Geography combines smaller geographies into a bigger, more impactful one. For example, you can use composite geography if you've created three or more smaller geographies and now want to unite them into a larger geography.

Procedure

1. Open either Territory Planning platform or Territory Planning console based on your role.
 - Navigate to **All > Field Service > Territory Planning**.
 - Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. Do either of the following.
3. On the form, fill in the fields.

Territory Geography

Field	Description
Name	Name of the geography.
Geography Type	Select Composite Geography .
Composite geography	Select the geographies which you want to comprise into a composite geography. <div style="border: 1px solid black; padding: 5px;"> <p>Note: You can choose up to 10 GeoJSON geographies. Avoid selecting a composite geography or a geography with matching attributes within another composite geography.</p> </div>

4. Select **Submit**.
The composite geography is created.

Result

The composite geography encompasses all the latitude, longitude, and geo points contained within the selected geographies. Associate the composite geography to a territory to manage

work order tasks in the Territory Planning console. The geography appears visually on the map when its territory is selected in the Territory Planning console.

What to do next

Link the geography to a territory. For more information, see [Create a Field Service territory](#).

Edit a geography

Edit the boundaries or shapes of an existing territory geography in a map.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. Locate the territory card for which you want to edit geography and select the More Options (⋮) icon.
3. Select **Edit Geography**.
4. Modify the geography based on the geography type.
 - To edit a GeoJSON geography in the Territory Planning console, select the geography on the map and modify the boundaries. For more information, see [Create a GeoJSON geography in Territory Planning console](#).
 - To edit a geography that is created using matching attributes, select the **Matching Attributes** tab, and then select **Add**. For more information, see [Create a matching attributes geography](#).
 - To edit a composite geography, see [Create a composite geography](#).
5. After editing geography, you can see either the **Save** or **Save As New** option, depending on the number of related territories and your managerial permissions. If you only manage one related territory, it's best to save the changes to the existing record since it only affects that specific territory. However, if you manage multiple territories or you don't have management permission for all related territories, it's recommended to create a record to avoid impacting other territories.
 - Select **Save** to modify the existing geography.
 - Select **Save As New** to create a geography for the territory while preserving the previous one.

Note:

If both buttons are available, you can choose between saving the modifications to the existing geography or creating one.

Once you have made your selection, the changes are saved, and the territory geography is updated accordingly.

Create a Field Service territory

Create territories for optimizing agent and group scheduling. By mapping these territories to the territory model, you can maintain a record of your territory setup, ensuring efficient management.

Before you begin

You must set up a territory geography before you start creating a territory. For more information, see [Create a GeoJSON geography in Territory Planning console](#).

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

Set up a territory geography before creating territories. A territory is defined by its geographic area, and you can organize multiple territories in a hierarchy. The highest-level territory serves as the parent territory, covering geographic areas within it as child territories. For example, you can create a parent territory, California, and its child territories: San Francisco, Los Angeles, San Jose, and Santa Clara.

When creating a new territory, you have the option to copy an existing territory record with any modified values by selecting the **Insert and Stay** option.

Procedure

1. Open either Territory Planning platform or Territory Planning console.
 - Navigate to **All > Field Service > Territory Planning > Territories > New**.
 - Navigate to **All > Field Service > Territory Planning > Territory Planning Console > Create Territory**.
2. On the form, fill in the fields.

Territory form

Fields	Description
Name	Name of the territory.
Description	Description of the territory.
Parent	<p>Name of the parent location for the territory to create a territory hierarchy.</p> <p>If no parent territory is specified, this territory will serve as the highest-level (parent) territory.</p> <p>Note: Territory manager can only create child territories for their territories.</p>
Rank	Set a ranking rule to prioritize territories for task assignment (descending order).
Color	<p>Enter the hexadecimal code or color picker to select the color. This helps to highlight the territory on the map in the Territory Planning console.</p> <p>Note: This field becomes optional when the selected territory has been created using matching attributes geography and the selected territory is a non-assignment territory.</p>
Model	Name of the territory model to which to map this territory.

Fields	Description
	This field is automatically set to the default Field_Service_Territories territory model.
Assignment Territory	Select the check box to convert the territory into an assignment territory, allowing you to add assignment groups and field service agents to it. Note: An inactive assignment territory is not eligible for scheduling and does not appear in the Dispatcher Workspace.
Geography	Add the name of the geographic area defined for this territory. Note: This field is optional for a non-assignment territory.
Active	Indicate whether the territory is available for scheduling. Note: An inactive territory is not eligible for scheduling and does not appear in the Dispatcher Workspace.

3. Select Save.

The territory is created.

Result

When accessing a territory record, the displayed related lists depend on whether it is categorized as assignment or non-assignment type. Non-assignment territories allow the addition of managers and child territories exclusively. However, assignment territories permits to add managers, qualification groups, dispatch groups, assignment groups, agents, child territories, capacity assignment, and crews. These assignment territories are specifically considered in the context of work order management.

What to do next

[Configuring resources for territories](#)

Configuring resources for territories

Configure resources for territories effortlessly by linking them to groups.

These groups, consisting of qualifiers, dispatchers, agents, and crews, work together to efficiently assign tasks. Whether it's assigning an individual agent or a whole crew, the logical flow ensures tasks go to active territory members best suited for the job.

Assign groups to a territory

Assign groups of qualifiers, dispatchers, agents, and crews to territories to optimize resource allocation for tasks.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

You can add qualification or dispatch groups only to an **Assignment Territory**. When you add a group to an assignment type of territory, the system automatically updates the relevant assignment groups, adding the group members to the territory.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. In the Territories panel, select the desired territory.
The territory record appears.
3. Select the **Qualification Groups** tab or **Dispatch Groups** tab and click **Add**.
4. On the form, fill in the fields.

Create New Territory Group

Fields	Description
Group	Enter the name of the group responsible for qualifying and dispatching work orders or tasks.
Membership type	<p>Choose the membership type—either primary or secondary. This determines the priority for assignments if the group is part of multiple territories.</p> <p>For example, assign a primary membership to the group for one territory and a secondary membership for another.</p> <p>Note: This field is evaluated only for assignment groups.</p>
Territory	Enter the name of the territory to map to the group.
Active	Option to indicate whether the group is available for scheduling.

5. Select **Save**.
A group is added to the territory.

Result

Once a qualification or dispatch group is added to a territory, the system automatically updates the associated assignment groups, adding the group members to the territory. Whether it's a qualification or dispatch group, the system displays them into the respective related lists, simplifying the reference process when handling territories.

Add agents to a territory

Add agents directly to a territory without adding them to the assignment groups. Enables agents to start working on tasks right away.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

- You can add agents to the territory even though its assignment group isn't added to the territory.
- Agents can work in a territory for the specified duration.
- You can define multiple memberships for the same agent if they aren't overlapping with the same start and end dates.

Procedure

1. Navigate to **All > Field Service > Territories**.
2. From the territories list, open the territory for which you want to assign agents.
3. In the related list for the agent memberships, select **New**.
4. On the form, fill in the fields.

Territory Membership

Fields	Description
Territory	Name of the territory.
Membership type	Agent type for territory, either as primary or secondary agent.
User	Name of agent.
Crew	Name of crew. Note: This field appears when the Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) plugin is activated.
From	Effective from the date for the agent to start work in the territory.
To	Effective to date for an agent to end work in territory.

5. Select **Submit**.
The agent is added directly to a territory for the specified duration.

Result

The agents appear in the **Agent Memberships** related list when you open the territory record. Dispatchers can then assign tasks manually or automatically to agents associated with the territory.

Add crews to a territory

Add crews directly to territories, allowing members from your territories to join crews instantly and handle tasks immediately.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

About this task

To work with crews in territories, you need to activate the Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) plugin.

The following are the two ways to create crews:

1. **Manual:** You can hand-pick agents from any territory you're a member of to form a crew. It's like assembling your own team for a specific job.
2. **Automatic:** Dynamic scheduling handles automatic crew creation. When dynamic scheduling is selected as a scheduling method, the system can create crews on its own when they're needed, saving you time and effort. It does this by pulling agents from the territory linked to the specific work order task, ensuring the right people are assigned to the right job.

Procedure

1. Navigate to **All > Field Service > Territories**.
2. From the territories list, open the territory for which you want to assign crews.
3. Assign a crew for the territory.
 - o Select an existing crew.
 - o Create a new crew by selecting **New** in the crew memberships related list.
4. On the form, fill in the fields.

Crew form

Field	Description
Name	Name of the crew.
Description	Description of the crew.
Leader	Name of the crew leader.
Size	Total number of agents, including the leader, in the crew.
Schedule	Working hours of the crew.
Location	Location of the crew.
Maximum Travel Radius	Radius in selected distance unit (miles or kilometers).
Distance Unit	Unit of distance covered in miles or kilometers
Active	Option to indicate whether the crew is available for selection when assigning a work order task to the crew.
From	Effective from the date for the crew to start work.
To	Effective to date for the crew to end work.

5. Select **Submit**.

The crew is added directly to a territory for the specified duration.

Result

The crew becomes visible within the **Crew Memberships** related list of the territory record.

What to do next

Dispatchers can assign crews to work order tasks. For more information, see [Assign work order tasks to crews](#).



Add suggested agents to a territory

View suggested agents of a particular territory and add them directly to a territory.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager

Procedure

1. Navigate to **Workspaces > CSM/FSM Configurable Workspace**.
2. Click the Lists icon ().
3. In the **Field Service Territories** list, select **All**.
4. Click the territory for which you want to view suggested agents and add them to the territory. The territory record appears in a new tab.
5. Click the Suggested Agents icon (). The **Available Members** list appears with the suggested agents.
6. Select **Add** on the agent card. The message appears as the user has been added to territory.
7. Select **Save**. The agent is added to the territory and appears in the **Agent Memberships** tab.
8. Define the work duration for agents.
 - a. On the **Agent Memberships** tab, open the agent's record.
 - b. Select **Agent Schedules** tab and click **New**.
 - c. On the form, fill in the fields.

Agent Work Schedule

Fields	Description
From Date	Start date of the work duration for the territory.
To date	End date of the work duration for the territory. For more information, see <i>sn_fsm_tp.territory_membership_override_t</i> in Field Service Territory Planning console properties .
User	Name of agent.
Work schedule	Select the work schedule. For example 8 AM to 5 PM.
Type	Select Primary Work for agent as a primary contact for the selected territory.

d. Select Save.

The agent's work duration is specified for the territory.

Add managers to a territory

Add managers and provide access to a territory to manage a territory or manage resources of an assigned territory.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner

About this task

You can add different types of managers to a territory:

- **Primary manager:** The primary manager is the permanent managers for a dedicated territory.
- **Secondary manager:** The secondary manager can improve and manage territory when primary manager is not available.
- **Territory manager:** The territory manager can access and manage all territories.
- **Resource manager:** The resource manager has restricted access only to manage resources and create child territories in the assigned territory.

To understand the difference between the manager types and their access rights, see [Managing territories and agents from Territory Planning console](#) and [Field Service Territory Planning components](#).

Procedure

- 1.** Navigate to **All > Field Service > Territories**.
- 2.** From the territories list, open the territory where you want to assign managers.
- 3.** In the related list for the territory managers, select **New**.
- 4.** On the form, fill in the fields.

Territory Manager

Fields	Description
Territory	Name of the territory.
Membership type	Manager type for the group, either territory manager or resource manager, that sets the access and priority for assignments in a territory. Note: You can add a resource manager for only a specified duration.
Manager	Name of the manager.
Primary	Option to indicate whether the manager is primarily dedicated for all activities in the territory.

Fields	Description
	<p>Note: Do not select the option if you want to add a secondary manager for a specified duration.</p>
From	Manage territory from the selected date.
To	Manage territory until the selected date.

5. Select Submit.

The manager is added to the territory and can access the Territory Planning console to manage their assigned territory and related child territories.

Result

The manager appears in the **Territory Managers** related list when you open the territory.

Modify the resource membership of agents or crews associated with a territory

Modify the territory membership of agents or crews to make them available to work in a territory for a certain period, set their priority when assigning tasks, or mark them as inactive.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner

About this task

All agent and crew resources in the assignment group associated with a territory are available to work in that territory by default. You can modify their membership by making them inactive to avoid assigning tasks to them or set their territory membership type to either primary or secondary. Resources with a primary membership are prioritized over resources with a secondary membership when assigning tasks.

Note:

- You can customize the membership of any resources regardless their assignment group and assignment territory.
- You must activate Field Service Crew Operations plugin to view and customize crew membership. For more information, see [Activate Field Service Crew Operations](#).

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. In the Territories panel select the territory.
The territory record appears.
3. Modify the desired membership.
 - To modify agent membership, select **Agent Membership** tab.
 - To modify crew membership, select **Crew Membership** tab.
4. Select **Add**.
5. On the form, fill in the fields.

Territory Membership Override form

Fields	Description
Territory	Name of the territory. This field is automatically set to the territory for which the agent or crew is a member.
User	Name of the agent whose membership you want to change. This field is available only when a crew is not selected in the Crew field.
From	Date from which the resource is available to work in the territory.
Active	Option to indicate whether the resource is available to work in the territory.
Membership type	Type of membership for the resource, either primary or secondary. For example, if a resource is part of two territories simultaneously, assign a primary membership to the resource for territory one and a secondary membership for the other territory.
Crew	Name of the crew whose membership you want to change. This field is available only when an agent is not selected in the User field.
To	Date until which the resource is available to work in the territory.

6. Select Save.

Result

The agent or crew availability and membership is modified.

Enable the Field Service territory model

Activate the territory model to display the **Territory** field in the work order task form so the task can be assigned to an agent or crew associated with the selected territory. The territory model maintains a record of territories mapped to it.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner

About this task

Activate the Field Service Territory Planning plugin (com.snc.fsm_territory_planning). For more information, see [Activate Field Service Territory Planning](#).

Procedure

1. Navigate to **All > Territory Planning > Territory Model**.
2. Open the `Field_Service_Territories` territory model.
3. Select the **Active** check box.
4. Click **Update**.

Result

After activating the Field Service territory model successfully, the **Territory** field is added to the work order task form. It allows you to assign tasks to agents or crews to specific territories.

The agent's calendar filters based on territories in the Dispatcher Workspace, and the **Qualifier type for Schedule Optimization** system property is automatically set to **Territory**. For more information, see [Schedule optimization properties](#).

Moreover, with `sn_fsm.use_query_rules` query rule being active, agents, dispatchers, and qualifiers can view the work order tasks if they are created in their territories, ensuring data security.

Configuring Field Service Agent Efficiency

Configure Field Service Agent Efficiency to define Agent Efficiency criteria and values for agents and more accurately calculate the work duration for a work order task or combination of tasks.

Field Service agent efficiency is the pace at which an agent can complete a type of work order task. The values for Agent Efficiency for efficiency criteria range from 0 to 2, where a value of 1 signifies that the agent completes these tasks within the standard time frame. A value above 1 suggests the agent finishes these tasks faster than the average, while a value below 1 indicates the agent takes longer than the typical time needed to complete the task. Field Service Agent Efficiency for an agent can be defined for multiple criteria.

Field Service Agent Efficiency uses the following formula to calculate the estimated work duration based on the planned work duration and agent efficiency:

$$\text{Estimated work duration} = \text{Planned work duration} / \text{Agent Efficiency}$$

Goal: Ensure the best-suited agent is assigned the task by considering the efficiency of the agents for these particular tasks and accurately estimate the work duration.

Assume there are two qualified work order tasks that are ready to be dispatched, one for laptop repair and another for MRI machine installation.

Agent Efficiency table:

Technician	Agent Efficiency criterion	Agent Efficiency	Planned work duration	Estimated work duration
Anthony Roy	MRI machine installation	0.5	60 minutes	120 minutes
Cindy Lisa	Laptop repair	0.6	60 minutes	100 minutes
Cindy Lisa	MRI machine installation	0.8	60 minutes	75 minutes
Alisa Chinoy	Laptop repair	0.8	60 minutes	75 minutes
Ray William	Laptop repair	1.2	60 minutes	50 minutes

Technician	Agent Efficiency criterion	Agent Efficiency	Planned work duration	Estimated work duration
Alex Ray	Laptop repair	1	60 minutes	60 minutes

Explanation: For the laptop repair work order task, the best-suited technician is Ray William because this technician completes this type of task 10 minutes earlier than the planned work duration.

For the MRI machine installation task, the best-suited technician is Cindy Lisa.

Configuration overview

The steps for configuring Field Service Agent Efficiency are:

1. Activate Field Service Agent Efficiency

Activating the Field Service Agent Efficiency plugin (com.snc.fsm_agent_efficiency) requires the admin role.

2. Create or modify Agent Efficiency criteria

3. Assign an Agent Efficiency value to agents

4. (Optional) Create or modify an Agent Efficiency determination rule

5. (Optional) Configure Field Service Agent Efficiency with Dynamic Scheduling to auto-assign tasks to the agents. For more information, see [Configuring Dynamic Scheduling](#).

6. (Optional) Configure Field Service Agent Efficiency with Intelligent Task Recommendations to recommend the best suited task for an agent based on the efficiency. For more information, see [Setting up Intelligent Task Recommendations](#).

Activate Field Service Agent Efficiency

You can activate the Field Service Agent Efficiency plugin (com.snc.fsm_agent_efficiency) if you have the admin role. The application includes demo data and installs related plugins if they are not already installed.

Before you begin

To purchase a subscription, contact your ServiceNow account manager. When you purchase a subscription, certain plugins are activated automatically. If a paid plugin isn't activated automatically, you can manually activate it from the All Applications list in your instance.

Note:

Before purchasing a subscription, you can evaluate the feature on a non-production instance without charge by requesting it from the Now Support Service Catalog.

Role required: admin

About this task

The following items are installed with Field Service Agent Efficiency:

- Plugins
- Tables

For more information, see [Field Service Agent Efficiency components](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All.**
2. Find the Field Service Agent Efficiency plugin (com.snc.fsm_agent_efficiency) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.`

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Create or modify Agent Efficiency criteria

Create or modify Field Service Agent Efficiency criteria to evaluate agent efficiency and calculate the work duration for a work order task.

Before you begin

Role required: wm_admin, wm_dispatcher

Procedure

1. Navigate to **All > Agent Efficiency > Agent Efficiency Criteria.**
2. Create a new criterion or update an existing criterion.
 - o To create a new criterion, select **New**.
 - o To modify a criterion, select its name.
3. On the form, fill in or modify the fields.

Agent Efficiency criterion

Field	Description
Name	Name of the Agent Efficiency criterion.
Task table	Table for which the criterion is created. This value should be Work Order Task [wm_Task].
Active	Option to activate the criterion.

4. Select **Submit**.

Result

The Agent Efficiency criterion is created or modifications saved.

What to do next

[Create or modify an Agent Efficiency determination rule](#)

Assign an Agent Efficiency value to agents

Assign a Field Service Agent Efficiency criteria and efficiency value to agents to more accurately calculate work duration.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Agent Efficiency > Agent Efficiency Values**.
2. Select **New**.
3. On the form, fill in the fields.

Agent Efficiency value

Field	Description
Agent	Name of the agent.
Agent Efficiency Criteria	Agent Efficiency criterion.
Efficiency	Agent Efficiency value ranging from 0-2.
Active	Option to activate the Agent Efficiency criterion and its value.

4. Select **Submit**.
5. **Optional:** View the record by navigating to **All > Agent Efficiency > Agent Efficiency Values**.

Result

The Agent Efficiency value is assigned to the agent.

Create or modify an Agent Efficiency determination rule

Create or modify an Agent Efficiency determination rule for work order tasks.

Before you begin

Role required: wm_admin, wm_dispatcher

About this task

An Agent Efficiency determination rule automatically assigns Agent Efficiency criteria to a qualified work order task. Intelligent Task Recommendation uses Agent Efficiency determination rules to recommend the best-suited tasks for an agent.

Procedure

1. Navigate to **All > Agent Efficiency > Agent Efficiency Determination Rules**.
2. Create or modify a determination rule.
 - To create a new rule, select **New**.
 - To modify a rule, select its name.
3. On the form, fill in or modify the fields.

Agent efficiency determination rule

Field	Description
Name	Name of the rule.
Application	Application to which the rule applies. This field is automatically set to Global and cannot be modified.
Type	The type of the determination rule. <ul style="list-style-type: none"> ○ Simple: A simple determination rule using one or more filter conditions. ○ Advanced: A determination rule that uses a script.
Active	Activates the determination rule.
Source table	The table to which this determination rule applies.
Order	The priority for the determination rule. Determination rules with lower order values are applied first.
Condition	One or more conditions to determine the work order tasks to which this determination rule applies. <p>Note: This field appears only when Type is selected from Simple.</p>
Agent efficiency criteria	The Agent Efficiency criterion to which the determination rule applies. <p>Note: This field appears only when Type is selected from Simple.</p>
Script	A script to define the determination rule details. <p>Note: This field appears only when Type is selected from Advanced.</p>

4. Select **Submit**.

Result

The determination rule is created.

What to do next

[Assign an Agent Efficiency value to agents](#)

Configuring an agent calendar

Users with the agent calendar administrator role can perform several calendar configuration tasks.

Configuration overview

You can configure the following for an agent calendar:

- [Create an event configuration for an agent calendar](#)

Create configurations for each type of entry displayed on the agent calendar. Entries could include case tasks, work order tasks, appointments, or schedule entries such as event types that you could track and manage on the team calendar.

- [Create a work schedule for an agent or technician](#)

Create one or more work schedules for a customer service agent or a field service technician.

- [Create a personal event for an agent or technician](#)

Create personal events that appear on an agent's personal calendar.

- [Create a schedule to use with the agent calendar](#)

Create a schedule to use with the agent calendar.

Related topics

[Managing agent calendar](#)

[Use the agent calendar](#)

Create an event configuration for an agent calendar

Create configurations for each type of entry displayed on the agent calendar. Entries could include case tasks, work order tasks, appointments, or schedule entries such as event types that you could track and manage on the team calendar.

Before you begin

The schedule entry uses the Schedule Span [cmn_schedule_span] table to store different types of events.

The following types of schedule entries for event type configurations are available by default:

- Event – Appointment
- Event – Excluded
- Event – Meeting
- Event – Phone
- Event – Time Off
- Event – Other

These configurations are inactive by default. You can activate a configuration by navigating to **Agent Schedule > Event Configuration**, selecting an event type configuration, and setting the **Active** field to **true** for one or more event configuration types you would like to activate. Each configuration displays as a separate event type on the team calendar.

Role required: agent_schedule_admin

Procedure

1. Navigate to **Agent Schedule > Event Configuration** and perform one of the following actions.
2. Fill in the fields on the Event Configuration form, as necessary.

Event Configuration form

Field	Description
Name	A descriptive name for this configuration.
Config Label	Name displayed for this event in the agent calendar.
Color theme	Color used to display this type of schedule on the agent calendar.
Setup	
Setup	Setup method for this configuration. <ul style="list-style-type: none"> ○ Simple: use condition builder to set up this configuration. ○ Scripted: use advanced scripts to set up this configuration.
Table	The table where the tasks for this type of configuration are stored.
Filter	Use condition builder to create the desired conditions for the selected task type. For example, the event configuration for Case Tasks includes a filter on the task State field to display only those tasks that are open.
User Field	A field from the Table that provides the user assigned to the task. For example, the event configuration for Case Tasks uses the Assigned To field from the Task table [sn_customerservice_task]. When a case task is assigned, it appears on the agent calendar for the user selected in this field.
Event type	Type of schedule entry.
Display Field	A field from the Table that provides the information to be displayed for this event type on the agent calendar. For example, the event configuration for Case Tasks uses the Subject field from the Task table [sn_customerservice_task]. When a case task is assigned, the subject of the task appears on the agent calendar.
Start Date Field	A field from Table that provides the start date for the task. For example, the event configuration for Case Tasks uses the Expected start field from the Task table [sn_customerservice_task]. When a case task is assigned, it appears on the agent calendar starting on the date and time specified in this field. The Expected start field must contain a value for the event to appear in Workforce. If the field is empty, the event will not be displayed.
End Date Field	A field from the Table that provides the end date for the task. For example, the event configuration for Case Tasks uses the Due date field from the Task table [sn_customerservice_task]. When a

Field	Description
	<p>case task is assigned, it appears on the agent calendar ending on the date and time specified in this field. The Due date field must contain a value for the event to appear in Workforce. If the field is empty, the event will not be displayed.</p> <p>Note: Because the agent schedule administrator can select any fields from the Task Table for the Start Date Field and the End Date Field, it is possible that the end date may be earlier than the start date. In this event, the task is displayed on the agent calendar between the two points in time.</p>
Script	<p>Use advanced scripts to create the event configuration.</p> <p>Note: This field is available when the Scripted value is selected from the Setup field.</p>

3. Perform one of the following actions:

- If you created the configuration from an existing configuration, click **Update**.
- If you created a new configuration, click **Submit**.

Create a personal event for an agent or technician

Users with the agent schedule administrator role can create personal events that appear on an agent's personal calendar.

Before you begin

Role required: agent_schedule_admin

About this task

Agents and technicians typically add personal events to their own calendars.

Procedure

- 1.** Navigate to **All > Agent Schedule > Agent Personal Events**.
- 2.** Select the personal schedule for the desired agent.
- 3.** In the **Schedule Entries** related list, select **New**.
- 4.** Fill in the fields on the Schedule Entry form, as necessary.

Schedule Entry form

Field	Description
Name	The name of the event.
Type	<p>The type of event:</p> <ul style="list-style-type: none"> ○ Time off ○ Appointment ○ Meeting ○ Phone call

Field	Description
	<ul style="list-style-type: none"> ○ Excluded ○ On call ○ Time off - in approval ○ Time off - rejected
Show as	<p>Show this event on the agent's personal calendar as one of the following:</p> <ul style="list-style-type: none"> ○ Busy ○ Free ○ Tentative ○ On call <p>Select Busy to exclude the block of time from agent availability calculations for the auto- assignment and the case assignment workbench.</p>
When	The start date and time of the personal event.
To	The end date and time of the personal event.
All day	Enable this check box if the event lasts all day.
Repeats	<p>Create a repeating event by selecting the frequency. Depending on the selection, other fields are required to complete the frequency information.</p> <ul style="list-style-type: none"> ○ Doesn't repeat ○ Daily ○ Every Weekday (Mon-Fri) ○ Every Weekend (Sat, Sun) ○ Every Mon, Wed, Fri ○ Every Tue, Thu ○ Weekly ○ Monthly ○ Yearly
Repeat every	Enter a number for the frequency of the repeated event.
Repeat on	For weekly events, select a day of the week.
Monthly type	<p>For monthly events, select one of the following. These selections use the day and date in the When field as the basis for repetition.</p> <ul style="list-style-type: none"> ○ Day of the month ○ Day of the week ○ Last day of the month ○ Last week of the month
Yearly type	For monthly events, select one of the following:

Field	Description
	<ul style="list-style-type: none"> Day of the year: This selection uses the day and date in the When field as the basis for repetition. Floating: For this selection, complete the Float week, Float day, and Float month fields.
Repeat until	Select a date for the end of the repeated event.
Float week	For a floating yearly repeating event, select the week.
Float day	For a floating yearly repeating event, select the day.
Float month	For a floating yearly repeating event, select the month.

5. Select Submit.

Configuring Field Service Crew Operations

Create, modify, and enable crews and their requirements to complete work order tasks that require a crew of agents.

Once an administrator identifies the type of work that requires a crew, the requirement can be designated from the work type form and the work order template. Whenever a work order is created using the template or the work type is selected in the task that requires a crew, the **Needs Crew** field is automatically enabled. This field enables dispatchers to schedule and dispatch a crew for work order tasks created using the work order templates. For more information about enabling crew requirements from work order templates, see [Create a work order template](#).

An administrator or dispatcher can select the **Needs Crew** option in the work order task form if a crew is required to complete a work order task. This selection can be done when the task is in the Draft, Assigned, or Pending dispatch state if a crew a crew is required to complete a work order task.

Activate the Field Service Crew Operations plugin, to add the **Needs Crew** option to the work order task form, work type form, and the work order templates.

Dynamic Scheduling for crew operations

Auto-assignment of tasks in dynamic scheduling is enabled for work order tasks that require a crew. New criteria are defined in the dynamic scheduling configurations to include work order tasks with the crew requirement enabled. These criteria are set to perform the following actions on work order tasks that require a crew:

- The Task Filters related list includes:

Crew Appointment Tasks

This filter is specific to the task that requires a crew and has an appointment window

Crew Assignment: Pending Dispatch Work Order Tasks

This filter is specific to the task that requires crew and is in the Pending Dispatch state.

Agents for crew tasks

This filter is specific to the task that requires the crew to suggest the eligible agents. The criterion selected in the filter determines what agents are recommended for the crew task.

Task filters evaluate work order tasks and schedule them automatically when they require a crew.

- A constraint helps prevent unassigning the task when it requires a crew.
- The auto-assignment feature helps prevent assigning tasks to the agents who are part of a crew at the same time for which the task is set to be scheduled.

Configuration overview

The steps for configuring Field Service Crew Operations are:

1. Activate Field Service Crew Operations

You can activate the Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow Store applications and plugins if they aren't already installed.

2. Create crews in Field Service Management

Create crews to assign work order tasks to a predefined group of agents.

3. Add skills to a crew

Add skills to a crew so you understand what crews are correct for work order tasks that require unique skills.

4. Add an equipment skill

Designate skills as equipment-related skills so that when a task that requires equipment skills is assigned, the correct equipment skills can be selected.

5. Create ad hoc task-specific crews

Create an ad-hoc task-specific crew for a task if existing crews aren't available to work on the task or the task requires specific skills.

6. Update the crew requirement of a work order task

Add or update the number of agents to perform a particular type of work for a work order task.

7. Add Field Service crew members

Add agents to a Field Service crew as needed.

8. Configure the leader role to identify crew leaders

Identify a crew leader if one isn't specified by the dispatcher by adding skills to the leader role.

Related topics

[Using Field Service Crew operations](#)

[Assign work order tasks to crews](#)

[Using Dispatcher Workspace for crew operations](#)

[Managing crew tasks using the Now Mobile Agent application](#)

Activate Field Service Crew Operations

You can activate the Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Field Service Crew Operations requires the Field Service Management [com.snc.work_management] plugin. For more information about activating Field Service Management, see [Activate Field Service Management](#). Ensure that these plugins are activated before you install Field Service Crew Operations.

Role required: admin.

About this task

The following items are installed with Field Service Crew Operations:

- Roles
- Tables
- Business rules

For more information, see [Field Service Crew Operations components](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. **Optional:** If demo data is available and you want to install it, click **Load demo data**. Demo data comprises sample records that describe application features for common use cases. Load demo data when you first install the application on a development or test instance.
4. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Result

The Field Service Crew Operations plugin when activated successfully adds the *sn_fsm_crew.work_management.allow.undersized.crew.taskassignment* property to the Field Service Management system properties. For more information, see [Properties installed with Field Service Management](#).

Create crews in Field Service Management

Create crews to assign work order tasks to a predefined group of agents.

Before you begin

Role required: wm_dispatcher, wm_manager

About this task

Crews can be defined based on the type of work needed, the geographical location, and the necessary skills. If the Territory Planning plugin is activated and the Territory model is enabled, you can pick the agents who are associated with the territories while creating a crew.

Procedure

1. Navigate to the **My Crews** module based on your role.
 - Manager: Navigate to **Field Service > Manager > My Crews**.
 - Dispatcher: Navigate to **Field Service > Dispatching > My Crews**.
2. Click **New**.
3. On the form, fill the fields.

Crew form

Field	Description
Name	Name of the crew.
Description	Description of the crew.
Leader	Name of the crew leader.
Size	Total number of agents, including the leader, in the crew. <div style="display: flex; align-items: center;"> <div style="margin-right: 5px;">i</div> <div> <p>Note: This field is mandatory.</p> </div> </div>
Schedule	Working hours of the crew.
Location	Location of the crew.
Maximum Travel Radius	Radius in selected distance unit (miles or kilometers).
Distance Unit	Unit of distance covered in miles or kilometers
Active	Option to indicate whether the crew is available for selection when assigning a work order task to the crew.
From	Effective from the date for the crew to start work.
To	Effective to date for the crew to end work.

4. Click **Submit**.

Result

The crew is created with the Groups, Skills, and Members related list records. If the Territory Planning plugin is activated and the Territory model is enabled, **Territory Memberships** related list appears with the list of territories associated with the crew.


Add skills to a crew

Add skills to a crew so you know what crews are right for work order tasks that require unique skills.

Before you begin

Role required: wm_crew_moderator

Procedure

1. Navigate to **All > Field Service > Manager > My Crews**.
2. Open a crew from the list to which you want to add skills.
3. In the Skills related list, select **Add**.
4. Select the Lock  icon.
5. In select target record, search for the skill you want to add to the crew.

Note:

You can add more than one skill per line, but if you do you can't add a skill level for skills that are on the same line.

6. **Optional:** Select a skill level.
7. In Quantity, select the number of agents in the crew that have that skill.

Note:

The size of the crew must be greater or equal to the quantity of skills assigned to the crew. You can't have more skills assigned to a crew than there are agents in the crew.

8. Select **Submit**.


Add an equipment skill

Designate skills as equipment-related skills so that when a task that requires equipment skills is assigned, the correct equipment skills can be selected.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Skills > All Skills**.
2. Select the skill that you want to designate as an equipment skill.
3. Under **Contains Skills**, select **Edit**.
4. Under **Collection**, search for and select Equipment Skills.
5. Select the Add () icon.
6. Select **Save**.

Create ad hoc task-specific crews

Create an ad hoc task-specific crew for a task if existing crews are not available to work on the task or the task requires specific skills.

Before you begin

Role required: wm_manager

About this task

The Create Crew option is available in the work order task form if the following conditions are met:

- Task is in the Pending Dispatch state.
- Dispatch Group is selected.
- The **Needs Crew** option is active.
- The task is scheduled for the present date or future dates.

Note:

You can create only one crew for a work order task. If you try creating another crew for a task, the system redirects you to the existing crew.

Procedure

1. Navigate to **All > Field Service > Manager > > Work Order Tasks.**
2. Open a work order task that is in the **Pending Dispatch** state.
3. Click **Create Crew.**
4. On the form, fill the fields.

Crew form

Field	Description
Name	Name of the crew. This field is auto-populated based on the work order task for which the crew is created. For example, WOT9001007 Crew.
Description	Description of the crew. This field is auto-populated with a default text message, for example, Crew to work on WOT9001007.
Leader	Name of the crew leader.
Size	Total number of agents, including the leader, in the crew.
Schedule	Working hours of the crew.
Location	Location of the crew.
Maximum Travel Radius	Radius in selected distance unit (miles or kilometers).
Distance Unit	Unit of distance covered in miles or kilometers.
Active	Option to indicate whether the crew is available for selection when assigning a work order task to the crew.

5. Click **Submit.**

Result

An ad hoc task-specific crew is created along with the related list records, such as Details, Groups, Skills, and Task Assignees.

Update the crew requirement of a work order task

Add or update the number of agents to perform a particular type of work for a work order task.

Before you begin

Role required: wm_admin, wm_dispatcher

You must select the **Needs Crew** option in the work order task.

About this task

The default minimum crew size is 2.

Procedure

1. Navigate to **All > Field Service > All Work Order Tasks**.
2. Open a work order task from the list that is in the **Draft** or **Pending Dispatch** state.
3. In the **Crew Requirement** related list, enter the number of agents needed in the **Minimum Crew Size** and **Recommended Crew Size** fields.

Note:

- The recommended crew size should be equal to or greater than the minimum crew size.
- The minimum crew size must be equal to or greater than two.

4. Click **Save**.

Add Field Service crew members

Add agents to a Field Service crew as needed.

Before you begin

Role required: wm_manager, wm_dispatcher

About this task

A crew leader can be part of multiple planned crews in non-intersecting time frames.

Procedure

1. Navigate to the **My Crews** module based on your role.
 - Manager: Navigate to **Field Service > Manager > > My Crews**.
 - Dispatcher: Navigate to **Field Service > Dispatching > > My Crews**.
2. Open a crew from the list to which you want to add members.
3. In the Members related list, click **Add**.
4. On the form, fill the fields.

Crew member form

Field	Description
Member	Name of the field service agent.
Role	Role defined for an agent. For example, Member.
Effective From	Start date from when the member is available to work on the task.

Field	Description
	This field is auto-populated with the effective start date of the crew. For example, 2022-04-25.
Effective To	End date until when the member is available to work on the task. This field is auto-populated with the effective start date of the crew. For example, 2022-04-29.
Active	Option to indicate whether the member is associated with the crew.

5. Click **Submit**.

6. **Optional:** Repeat steps 3 through 5 to add more members to the crew.

Result

The members are added to the crew.

Configure the leader role to identify crew leaders

Identify a crew leader if one isn't specified by the dispatcher by adding skills to the leader role.

Before you begin

Role required: `wm_admin`

About this task

All crews must have a leader. Dispatchers can assign a leader to a crew or use the resource requirements to designate a skill the crew leader must have in order to be assigned as the crew leader.

If the dispatcher doesn't assign the leader to a crew or indicate a required leader skill in the resource requirements, the skills included in the leader role are used to determine the crew leader. The skills are matched with the skills of the available agents.

For more information on adding resource requirements to a task, see [Add resource requirements for a work order task](#).

Procedure

1. Navigate to **All > Skills > All Skills**.
2. Capture the `sys_id` of the skill that you want to add to the leader role.
 - a. Right-click the name of the skill and select **Copy sys_id**.
 - b. Paste the ID into a scratch file.
 - c. **Optional:** Add more than one skill to the leader role by repeating this step.
3. Select **All** and enter `sys_properties_list.do` in the filter navigator.
 - a. In the **Name** column, search for the leader role `sn_fsm_crew.crew.leader.skill`.
 - b. Select the role name.

Note:

Select **here** if you see a message about editing the Global application.

4. In the **Value** field, enter a comma after the last value and paste the skill sys_id you copied.

5. Select **Update**.

Configuring contractor capabilities

Set up interactions with contractor companies, their managers, and agents with Contractor Management. Additionally, Contractor Marketplace allows you to push task to a marketplace when internal agents are unavailable.

Configuration overview

If you have contractors, you can set up the following features:

- [Configuring Contractor Management](#)

You can configure Contractor Management to set up interactions with contractor companies and their managers and agents.

- (Optional) [Configuring Field Service Marketplace](#)

You can configure Contractor Marketplace to enable dispatchers to push tasks to marketplace when internal agents are unavailable.

For more information on Contractor mobile see [Field Service Contractor for mobile feature of the Now Mobile Agent application](#).

Configuring Contractor Management

You can configure Contractor Management to set up interactions with contractor companies and their managers and agents.

Use Contractor Management to set up interactions with contractor companies, their managers and agents, and work order task assignments to be performed at customer sites. Add contractor companies and external managers, onboard and offboard external agents, and create work groups for external field agents.

You can use guided setup to step through the initial configuration of Contractor Management tasks in order or access them separately as you need to configure them.

The steps for configuring Contractor Management are:

1. [Activate Field Service Contractor Management](#)
2. [Onboard a contractor company](#)
3. [Onboard an external manager](#)
4. [Create a work group for external field agents](#)
5. [Add external assignment groups to the dispatch group](#)
6. [Onboard an external agent](#)
7. [Offboard an external agent](#)
8. [Adding additional managers](#)

Related topics

[Contractor Portal](#)

[Work order tasks on the Field Service Contractor Portal](#)

[Record the usage of assets on the Contractor Portal](#)

[Requesting and receiving required parts](#)

Activate Field Service Contractor Management

Activate the Field Service Contractor Management plugin (com.snc.fsm_contractor_management) to use the Contractor Management application. This plugin includes demo data and activates related plugins if they are not already active.

Before you begin

Role required: admin

About this task

The Field Service Contractor Management plugin is available only for customers who are licensed for the Field Service Management application.

Note:

To utilize automation, the Dynamic Scheduling plugin must be installed and the **Use task filters for determining contractor tasks** property in Field Service Configuration must be enabled.

Roles are installed with Field Service Contractor Management.

For more information, see [Contractor Management components](#).

Procedure

1. Navigate to **All > Application > System Definition > Plugins**.
2. Search for the plugin com.snc.fsm_contractor_management.
3. Click **Activate**.

Onboard a contractor company

Onboard a contractor company to outsource field service tasks. The contractor company then sends its employees to the customer location to perform required tasks.

Before you begin


Role required: wm_admin and wm_contractor_manager_int

About this task

The work order tasks of the contractor company are automatically assigned to the manager for reassigning it to the field agents. The users can update the work order tasks company only if a manager is assigned.

Note:

The users will not be able to edit or assign the work order tasks of this contractor company if a manager is not assigned to the company.

You can also do the initial configuration of onboarding a contractor company through the **Field Service > Administration > Contractor Management** guided setup. For more information about using the guided setup interface, see [Using guided setup](#) .

Procedure

1. Navigate to **Outsourced Field Service > Outsourced Service Providers**.
2. Click **New**.
3. On the form, fill in the fields.

Outsource Service Providers form

Field	Description
Name	Name of the contractor company.
Manager	<p>Internal manager of the company selected from a drop-down list. The default value is System Administrator.</p> <p>The work order tasks of the contractor company are automatically assigned to the manager for reassigning it to the field agents.</p> <p>Users can update the work order tasks company only if a manager is assigned.</p> <p>Note: The users will not be able to edit or assign the work order tasks of this contractor company if a manger is not assigned to the company.</p>
Phone	Company phone number.
Fax phone	Fax number of the company.
Website	Web address of the company.
Street	Mailing street address of the company.
City	City in which the company is located.
State / Province	State or province in which the company is located.
Zip / Postal code	ZIP or postal code for the company.
Country	Name of the country in which the external contractor company is located.
Service Provider Type	Field Service Provider.
Notes	Any information about the company that would be helpful for others to know.

4. Click Submit.

Result

The external contractor company is successfully onboarded.

Onboard an external manager

Onboard a manager from a contractor company to manage, review, and assign the outsourcing and assignments of work order tasks to their field agents.

Before you begin

Role required: wm_admin and wm_contractor_manager_int

About this task

The work order tasks of the contractor company are automatically assigned to the manager for reassigning it to the field agents. The users can update the work order tasks company only if a manager is assigned.

Note:

The users will not be able to edit or assign the work order tasks of this contractor company if a manger is not assigned to the company.

You can also do the initial configuration of onboarding an external manager through the **Field Service > Administration > Contractor Management** guided setup. For more information about using the guided setup interface, see [Using guided setup](#).

Procedure

1. Navigate to **Outsourced Field Service > Outsourced Service Providers**.
2. Click the contractor company from which you want to onboard a manager.
3. Click **Onboard Manager**.
4. On the form, fill in the fields.

Service Organization External Staff form

Field	Description
First name	Manager's first name.
Last name	Manager's last name.
Active	Option for making this manager the selected external manager.
Email	Manager's official email address.
Time zone	Time zone of the manager's location.
Business phone	Manager's business phone number.
Mobile phone	Manager's mobile number.
Photo	(Optional) Photograph of the manager.
Date format	String format as specified in the field.

5. Click **Submit**.

Result

The system sends an email to the newly onboarded manager that includes a URL to use to log in to Field Service Contractor Portal.

Create a work group for external field agents

Create groups to assign work to external field agents based on your requirements such as skills, location, and product models so you can route work order tasks to the most qualified field agents

Before you begin

Role required: wm_admin, wm_contractor_manager_int

About this task

External work groups are managed by internal and external managers.

You can also do the initial configuration of onboarding an external manager through **Field Service > Administration > Guided Setup**. For more information about using the guided setup interface, see [Using guided setup](#).

Procedure

1. Navigate to **Outsourced Field Service > Outsourced Service Providers**.
2. Click the contractor company from which you want to create a work group.
3. Click **Create Group**.
4. On the form, fill in the fields.

Group form

Field	Description
Name	Name of the work group.
Manager	Group manager or lead.
Hourly rate	Amount charged per hour that is used to calculate the planned and actual resource costs for a task.
Description	Helpful information about the group.
Group email	Group email distribution list or the email address of the point of contact, such as the group manager.
Parent	Other group of which this group is a member. If a group has a parent, the child group inherits the roles of the parent group. The members of the child group are not members of the parent group.

5. Click **Submit**.

Result

A vendor group for the contractor company is successfully created.

Add external assignment groups to the dispatch group

Add external vendor assignment groups to the dispatch group to assign work order tasks directly to these external groups.

Before you begin

Role required: admin, wm_admin

Procedure

1. Navigate to **All > Application > Group Management > Dispatch Groups**.
2. Open a dispatch group from the list to which you want to add external assignment groups.
3. In the Assignment Groups Covered related list, click **New**.
4. On the form, fill the fields.

Service Order Groups Dependency

Field	Description
Dispatch group	Auto-populated with the name of the dispatch group to which you are adding an external vendor group.
Assignment group	Name of the external vendor group that is to be added.

5. Click **Submit**.

6. Click **Update**.

Onboard an external agent

Onboard an agent for contractor company to assign the work order tasks.

Before you begin

Role required: wm_admin, wm_contractor_manager_int

About this task

Internal manager of the company can onboard field service agents for the third-party contractor companies. These onboarded agents are known as external agents and responsible for performing the assigned work order tasks at the customer location.

You can also do the initial configuration of onboarding an external manager through **Field Service > Administration > Guided Setup**. For more information about using the guided setup interface, see [Using guided setup](#).

Procedure

1. Navigate to **Outsourced Field Service > Outsourced Service Providers**.
2. Click a contractor company from the list for which you want to on board a field service agent.
3. Click **Onboard Agent**.
4. On the form, fill in the fields.

Service Organization External Staff form

Field	Description
First name	Agent's first name.
Last name	Agent's last name
Active	Option for making this agent the selected external agent.
Email	Agent's official email address.
Time zone	Time zone for this agent's location.
Business phone	Agent's business phone number.
Mobile phone	Agent's mobile phone number.
Photo	Photograph of the agent.
Date format	String format as specified in the field.

Field	Description
Geolocation tracked	Option to enable tracking the real-time location of agent.

5. Click **Submit**.

Result

The system sends an email to the newly onboarded agent that includes a URL to reset the password while logging to Field Service Contractor Portal for the first time.

Offboard an external agent

Offboard external managers or agents of the contractor company to terminate their services.

Before you begin

Before offboarding a manager or an agent, ensure that they are not assigned to any task and remove them manually from the assigned assignment groups and stockrooms.

Role required: wm_admin, wm_contractor_manager_int

About this task

An offboarded manager or agent cannot log in to the Field Service Contractor Portal and do not receive any notification through email or SMS.

Procedure

1. Navigate to **All > Outsourced Field Service > Outsourced Service Providers**.
2. From the list of field service providers, click a contractor company from which you want to offboard an agent.
3. Click the **Contacts** tab.
4. From the **Service Organization External Staffs** list, click an agent whom you want to offboard.
5. Click **Offboard Agent**.

Result

The external manager or agent is removed from all the assigned groups.

Adding additional managers

Appointing additional managers in your organization ensures the continuity of work in the absence of a primary manager.

You can appoint additional managers for the external assignment groups of contractor companies.

Roles and responsibilities of additional managers:

Internal manager

- Onboard contractor companies and their employees
- Approve or reject onboarding agent requests
- Assign work to the contractor companies and their workforce
- Track the progress of work order tasks assigned to the contractor companies using the Contractor dashboard.

External manager

- Onboard agents for contractor companies
- Assign and manage work order tasks to the contractor agents using the Field Service Contractor portal.

Note:

An off-boarded agent automatically gets deleted from the additional manager role if assigned to. For more information, see [Offboard agents on the Field Service Contractor Portal](#).

Add additional internal managers

Appoint additional internal managers for an outsourced service provider to manage contractor companies and their employees in the absence of its primary internal contractor manager.

Before you begin

Assign `wm_int_contractor_manager` role to the employee of an internal company whom you want to add as additional internal manager. For more information, see [Assign a role to a user](#).

Role required: `admin`, `wm_admin`, or `wm_int_contractor_manager`

Procedure

1. Navigate to **All > Application > Outsourced Field Service Providers**.
2. Select a contractor company from the **Outsourced Service Providers** list.
3. In the Internal Contractor Managers related list, click **Edit**.
4. In the Collection list, select the desired user, and then click Add.

Note:

Collection list displays the users with `wm_int_contractor_manager` role only.

5. Click **Save**.

Result

The additional internal manager is added to the company.

Add additional external manager

Appoint additional external managers for an outsourced service provider to manage the agents and work of contractor companies in the absence of a primary external manager of the contractor company.

Before you begin

Role required: `admin`, `wm_admin`, or `wm_int_contractor_manager`

Assign `wm_ext_agent` role to the employee of an external company whom you want to add as additional external manager. For more information, see [Assign a role to a user](#).

Note:

The agent to be appointed as an additional external manager, should be the member of the assignment group of the same outsourced service provider.

About this task

Internal manager of a company can onboard field service agents for contractor companies and also appoint them as additional external managers to manage the managerial activities of contractor companies.

External manager of the contractor company can also assign additional manager role to a field service agent while on boarding them or later. For more information, see [Onboard agents on the Field Service Contractor Portal](#) and [Assign additional manager assignments to an agent](#).

This procedure explains how an internal manager can onboard additional external manager using ServiceNow AI Platform.

Procedure

1. Navigate to **All > Application > Outsourced Field Service Providers**.
2. Select a contractor company from the **Outsourced Service Providers** list.
3. In the Groups related list, open the assignment group for which you want to appoint an additional manager.
For example, Acme Services.
4. In the Additional Managers related list, click **Edit**.
5. In the Collection list, select the desired user, and then click Add.
6. Click **Save**.

Result

The additional external manager is added to the company.

Configuring Field Service Marketplace

You can configure Contractor Marketplace to enable dispatchers to push tasks to marketplace when internal agents are unavailable.

Configuration overview

1. [Activate Field Service Marketplace](#)
2. [Create a marketplace engagement method](#)

Activate Field Service Marketplace

You can activate the Field Service Marketplace plugin (com.snc.fsm_marketplace) for Field Service Management if you have the admin role. The application includes demo data if they aren't already installed.

Before you begin

Role required: admin

About this task

The following items are installed with Field Service Marketplace:

- Tables
- Roles
- System properties
- Business rules
- Script includes

For more information, see [Field Service Marketplace components](#).

Note:

To utilize automation in Field Service Marketplace, the Dynamic Scheduling plugin must be installed and the **Use task filters for determining contractor tasks** property must be enabled.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All.**
2. Find the Field Service Marketplace plugin (com.snc.fsm_marketplace) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.`

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Create a marketplace engagement method

Create a marketplace engagement method to specify how contractors respond to requests.

Before you begin

Role required: sn_mktplace_core.mktplace_admin

About this task

Marketplace engagement methods determine the criteria that contractors can respond to for requests. Field Service Marketplace comes installed with following methods:

Marketplace engagement methods

Engagement method	Description
Task acceptance	The task acceptance engagement method closes the request after the set duration. Participants can either accept or reject requests.
Time and cost based	The time and cost based engagement method closes after the set duration and enable participants to share time or cost estimates for the request.
Cost based	The cost based engagement method allows participants to respond with cost details for the request. The Request is progressively pushed based on acceptance or specified wait duration, whichever occurs first.
Auto-assign on acceptance	The Auto-assign on acceptance engagement method closes the request and auto-assigns

Marketplace engagement methods (continued)

Engagement method	Description
	it once an eligible contractor accepts the request.

Procedure

1. Navigate to **All > System Definition > Tables.**
2. In the **Search** field, enter **marketplace_engagement_method.**
3. Select **Marketplace engagement method.**
4. Select **Show List.**
5. Select **New.**
6. In the form, fill in the fields:

Marketplace engagement method form

Field	Description
Name	Name of the engagement method.
Description	Description of the engagement method.
Lead time	Time after which the marketplace request is ready for responses
Progressive push	<p>Using contractor ranking, incrementally pushes request to marketplace participants in numerical order based on specified wait duration.</p> <p>If the contractor does not respond or accept within a specified time frame, the request is shared automatically to the next ranked candidate. This process continues sequentially down the ranking list until it is shared with all contractors.</p>
Wait duration	<p>Default time period to wait for acceptance before request is made visible to the next marketplace participant.</p> <p>This is applicable when progressive push is set to true.</p>
Duration	Duration the request remains active for.
Close condition	The condition that closes the request.
Active	Determines whether this method is active or inactive.
Allow sharing estimates	Determines whether participants can share their cost or time estimate for the request.

Field	Description
Mandate cost estimate	Determines whether participants are required to provide cost estimate.
Mandate time estimate	Determines whether participants are required to provide time estimate.
Response evaluation flow	<p>This sets the criteria for assessing contractor responses. This subflow evaluates the responses received from fulfillers and takes a single response as input then performs the necessary calculations based on it.</p> <p>Any value entered into Response evaluation flow should be a subflow.</p> <p>Note: The subflow should accept only response as an input.</p> <p>There are two default option for Response evaluation flow:</p> <ul style="list-style-type: none"> ○ Override wait duration - Automatically overrides the specified wait duration when a bid is being progressively pushed. In scenarios where the first contractor responds before the wait time is up, this setting will bypass the remaining wait time and immediately continue with sending out the next request. This process continues until the bid is assigned or there are no fulfillers left for assignment, whichever comes first. ○ Auto assign - Automatically assigns the bid to the first eligible contractor to accept. <p>Note: Customers can create their own subflows to evaluate responses.</p>

7. Select Submit.

Modify marketplace eligibility criteria for Field Service Marketplace

Configure the eligibility criteria within task filter settings for Field Service Marketplace.

Before you begin

Role required: admin

Ensure that the Field Service Marketplace plugin is active. For more information, see [Activate Field Service Marketplace](#).

Note:

To utilize automation in Field Service Marketplace, the Dynamic Scheduling plugin must also be installed and the **Use task filters for determining contractor tasks** property must be enabled.

About this task

Field Service Marketplace comes with the **Marketplace tasks** filter, which determines if work order tasks are eligible for marketplace. This task filter is shipped as demo data with the Field Service Marketplace plugin.

For more information on task filters, see [Create a task filter for dynamic scheduling](#).

Procedure

1. Navigate to **All > Outsourced Field Service > Eligibility criteria** or **All > Marketplace > Eligibility criteria**.
 2. Select the task filter you wish to configure.
 3. Modify the following fields as needed:
 - Eligible for contractor assignment - Determines if this task filter allows for tasks to be assigned to contractors when meeting specified criteria.
 - Eligible for Marketplace - Determines if this task filter allows for tasks to be assigned to Marketplace when meeting specified criteria.
 4. Modify the **Select Criteria** as needed.
Select criteria is used to rate contractor groups. The two available select criteria are as follows:
 - Matching skills of contractors
 - Distance between task and contractors
 5. Navigate to the Eligible engagement methods related list and set **Auto push** to true for that method if you wish to enable Auto Push for an engagement method, if there are no eligible engagement methods listed, click New to add an engagement method eligible for this task filter.
- Note:**
Only one eligible engagement method can have auto push set to true, and therefore be utilized by the automation flow logic.
6. Click **Update**.

Configuring Field Service Capacity and Reservations Management

Configure Field Service Capacity and Reservations Management to manage the distribution and assignment of the work capacity for work order tasks.

Configuration overview

The steps for configuring Field Service Capacity and Reservations Management are:

1. [Activate Field Service Capacity and Reservations Management](#)
You can activate the Field Service Capacity and Reservations Management plugin (com.snc.fsm_capacity_management) for Field Service Management if you have the admin role.
2. Optionally, you can activate [Activate Field Service Capacity console](#) to have the Capacity Console in the CSM/FSM Configurable workspace for capacity planners.
3. [Capacity reservation rules](#) Create capacity reservation rules to use in the capacity definition.
4. [Create capacity allocation schedule](#)

The capacity allocation schedule helps manage and distribute your resource capacity over a set period, ensuring that a certain percentage of your resources are reserved for high-priority or same-day tasks.

5. Create a capacity definition

Allocate work to different task attributes based on their reserved capacity percentage and defined source of capacity.

6. Create a demand channel

Demand channels help organize and manage work by efficiently distributing resources. When creating a reservation rule, you can allocate a specific percentage of capacity to a particular demand channel. By tagging work orders or tasks with demand channels, you ensure they are routed correctly, improving resource allocation and scheduling accuracy.

7. Create a capacity assignment

Create the assignment of work based on the selected source, such as agent schedules, tasks, or hours.

8. Create a capacity assignment override

Change the default capacity assignment rules for any change in plan within a capacity definition. You can update the capacity assignments for the existing capacity definition rule at different time intervals and for different capacity buckets rather than creating a new capacity definition.

Related topics

[View Capacity Usages information](#)

[Field Service Capacity and Reservations Management components](#)

[Field Service Territory Capacity Analytics dashboard](#)

Activate Field Service Capacity and Reservations Management

You can activate the Field Service Capacity and Reservations Management plugin (com.snc.fsm_capacity_management) for Field Service Management if you have the admin role.

Before you begin

- Field Service Capacity and Reservations Management requires the following plugins. Ensure that these plugins are activated before you install Field Service Capacity and Reservations Management.

Required ServiceNow plugins

Field Service Management (com.snc.work_management)

For more information about activating Field Service Management, see [Activate Field Service Management](#).

Role required: admin.

About this task

The following items are installed with Field Service Capacity and Reservations Management:

- Tables
- Business Rules

For more information, see [Field Service Capacity and Reservations Management components](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.

2. Find the Field Service Capacity and Reservations Management plugin (com.snc.fsm_capacity_management) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Activate Field Service Capacity console

You can activate the Field Service Advanced Capacity and Reservations management (com.snc.fsm_advanced_capacity_management) for Field Service Management if you have the admin role.

Before you begin

- Field Service Advanced Capacity and Reservations management requires the following plugins.

Required ServiceNow plugins

Ensure that these plugins are activated before you install Field Service Advanced Capacity and Reservations management.

- Field Service Capacity and Reservations Management (com.snc.fsm_capacity_management) plugin.
- Field Service Territory Planning (com.snc.fsm_territory_planning) plugin.

Role required: admin.

About this task

The following components are installed with Field Service Advanced Capacity and Reservations Management plugin:

- The Capacity Planner role (fsm_adv_cap_mgmt.wm_capacity_planner) provides read, write, and create access to capacity-related tables, along with access to the Capacity Console.
- Script Includes: The following table provides the list of script includes that are installed.

Script Includes

Name	Description
CapacityConsoleConstants	Aggregate all constants in one place for the Capacity Console. Customers can override constants from CapacityConsoleConstantsSNC.

Name	Description
CapacityConsoleConstantsSNC	Aggregate all constants in one place for the Capacity Console.
CapacityConsoleData	Contains all the business logic for the Capacity Console. Customers can override this logic using CapacityConsoleDataSNC.
CapacityConsoleDataSNC	Contains all the business logic for the Capacity Console.
CapacityConsoleUtil	Contains all utility functions for the Capacity Console.
CapacityConsoleUtilSNC	Contains all utility functions for the Capacity Console.
FSMCapacityAdvancedFilterDefinition	Custom implementation of all advanced filters used in the Capacity Console.

Note:

You can customize the Capacity Console by taking the reference from the SNC script includes.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Advanced Capacity and Reservations Management plugin (com.snc.fsm_capacity_management) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Related topics

[Capacity Console](#)

[Using the Capacity Console](#)

Capacity reservation rules

Capacity Reservations enable you to efficiently distribute the total work capacity among work order tasks based on their attributes, such as work type, location, and priority.

You can create multiple reservation rules to manage and prioritize work order tasks based on their attributes, such as priority and demand. Each rule assigns a percentage of the total capacity to a specific task type or condition. This helps distribute workloads efficiently and make the best use of available resources.

Reserve the workload capacity

Create reservation rules based on different types of work to reserve the workload capacity for work order tasks.

Before you begin

Role required: wm_admin, wm_manager, and wm_internal_contractor_manager

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Reservations.**
2. Click **New.**
3. On the form, fill the fields.

Capacity Reservation

Field	Description
Name	Name of the reservation (e.g., "Daily Task Allocation").
Description	Description of the reservation category (e.g., "Reservation for daily Install and Breakfix tasks").
Table	wm_task table on which the condition applies. This field is read only.

4. **Optional:** In the **Exclude** field, click **Add Filter Condition** or **Add "Or" Clause** to define a condition that excludes the existing capacity reservation rule.
For example, if **Priority level = 1** is added as an exclude condition, the existing reservation rules will be excluded for work orders with a priority level of 1 (Critical).

5. Click **Submit.**

Create a reservation rule

Reservation rules help allocate a specific percentage of capacity for different attributes of work order tasks, such as work type, location, or priority. This confirms efficient task management and meets specific workload demands.

Before you begin

Role required: wm_admin, wm_manager, and wm_internal_contractor_manager, sn_fsm_tp.fsm_territory_manager, sn_fsm_tp.fsm_territory_planner

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Reservations.**
2. Open a Capacity Reservation from the list.
3. In the **Capacity Reservation Rules** related list, select **New.**
4. On the form, fill the fields.

Capacity Reservation Rule

Field	Description	Example
Name	Name of the reservation rule.	

Field	Description	Example
Demand Channel	<p>Select the demand channel for the reservation rule. For more information, see Create a demand channel.</p> <p>Note: Applies only if territory plugin is installed.</p>	<p>Example: "Install" or "Breakfix".</p>
Table	<p>The default table is wm_task on which the rule applies. (This is read only.)</p>	
Condition	<p>Define conditions to filter the workload.</p> <p>Note: Applies only if territory plugin is not installed.</p>	<p>Example: Reserve capacity for Install tasks:</p> <pre>[Work Type] [is] [Install] AND [Active] [is] [true]</pre>
Percentage Allocated	<p>The percentage of total capacity reserved for this rule. Sum of all percentage allocated should not exceed 100 of all the reservation rules within the reservation.</p>	<p>Example:</p> <ul style="list-style-type: none"> Total daily capacity: 4 tasks. If 25% is allocated for "Install" tasks, 1 task capacity is reserved for Install.
Allow Overflow	<p>Enable or disable overflow for tasks beyond the reserved percentage. When enabled, enables tasks to exceed their reserved percentage if there's unused capacity.</p>	<p>Example: Two Reservation Rules are defined:</p> <ul style="list-style-type: none"> 25% allocated to "Install" 25% allocated to "Breakfix" <p>This means only 25% + 25% = 50% capacity is allocated via the defined reservation rules. Hence, there is 100% - 50% = 50% additional capacity that has not been allocated to any rule.</p> <p>When Allow Overflow is enabled and incoming work exceeds the predefined 25% allocation for either "Install" or "Breakfix," this excess will be taken from the remaining 50% unallocated capacity pool.</p>
Maximum Overflow Percent	<p>Define the maximum percentage that a reservation can exceed its allocation.</p>	<p>Example:</p>

Field	Description	Example
		<ul style="list-style-type: none"> • "Install" is allocated 25% with a maximum overflow of 50%. • If the total capacity is assumed to be 4 tasks then Install can take 1 reserved task plus up to 1 additional tasks, for a maximum of 2 tasks (50% total).
Order	Determines the sequence in which rules are applied during task assignment.	<p>Example:</p> <ul style="list-style-type: none"> • Order 1: Reserve 25% to "Install or Priority 1" • Order 2: Reserve 50% to "Install" <p>For any installation type of tasks as both the rules will satisfy the first order rule will be picked up.</p>

5. Select **Submit.**

The reservation rule is saved.

Example: Capacity allocation based on reservation rules

- Total capacity: 8 tasks
- Reservation Rules:
 - Install: 25% (2 tasks reserved)
 - Breakfix: 25% (2 tasks reserved)



Note:

Unallocated Capacity: 50% (4 tasks)

Case 1: Allow Overflow is disabled for Breakfix:

- The **Allow Overflow** option is disabled for the "Breakfix" service.
- Scenario: "Breakfix" receives 3 incoming tasks.
 - 2 tasks are assigned based on the reservation rules.
 - Since **Allow Overflow** is disabled, no additional tasks are allocated from the unreserved capacity.

Case 2: Allow Overflow Handling for Breakfix:

- The **Allow Overflow** option is enabled for the "Breakfix" service.
- The **Maximum Overflow Percent** is set to 50%.
- Scenario: "Breakfix" receives 3 incoming tasks.

- 2 tasks are assigned following the reservation rules.
- 1 additional task is allocated from the unreserved capacity (utilizing up to 50% overflow).
- The system makes room to accommodate 1 more task within the overflow threshold.

Create capacity allocation schedule

The capacity allocation schedule helps manage and distribute your resource capacity over a set period, ensuring that a certain percentage of your resources are reserved for high-priority or same-day tasks.

Before you begin

Role required: wm_admin, wm_manager, wm_internal_contractor_manager, sn_fsm_tp.fsm_territory_manager, and sn_fsm_tp.fsm_territory_planner

About this task

- Allocate certain amount of capacity to different schedules so that the right amount of capacity is released for the work order task.
- Regularly review and adjust your allocation schedule based on historical data and changing business needs.
- Use the allocation schedule to balance the workload and avoid overburdening your resources.
- The default percentage of capacity will be allocated for all the days when the relative start date and relative end date of the allocation schedule is not defined.

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Allocation Schedules**.
2. Click **New**.
3. On the form, fill the fields.

Allocation Schedule

Field	Description
Name	Name of the allocation schedule record.
Description	Full description of the allocation schedule.
Default % allocation	Default percentage of capacity to be allocated for the schedule. This value is based on the frequency value defined in the capacity definition record.

4. In the **Allocation Schedule Details** related list, click **New**.
5. On the form, fill the fields.

Allocation Schedule Details

Field	Description
Name	Name of the schedule.
Relative start	Start date of the allocation schedule.
Relative end	End date of the allocation schedule.

Field	Description
% allocation	Percentage of capacity that should be allocated.

The capacity allocation schedule is created.

Example: Capacity allocation schedule

Let's assume you have three technicians working in a specific area, each working an 8-hour shift, giving you a total daily capacity of 24 hours. The goal is to ensure some capacity is always available for high-priority same-day tasks.

The available capacity and the reserved capacity is relative to the current day. As a new day begins, the capacities will be automatically updated as per the allocation schedule.

- Day 0 (Today): 100% of the available capacity (24 hours) can be booked.
- Day 1 to 3: Only 80% of the available capacity can be booked. This means for each of these days, only 19.2 hours can be booked in advance, reserving 4.8 hours for same-day tasks.
- Day 4 to 7: Only 60% of the available capacity can be booked, which means 14.4 hours per day, reserving 9.6 hours for same-day tasks.
- Day 8 and beyond: 50% of the available capacity can be booked. So, only 12 hours per day can be booked in advance, reserving the remaining 12 hours for same-day tasks.

The available capacity and the reserved capacity is relative to the current day. As a new day begins, the capacities will be automatically updated as per the allocation schedule. See the following table representation.

By creating this allocation schedule, you ensure that enough capacity is reserved for urgent tasks that may arise on the same day, while still allowing a significant portion of your capacity to be booked in advance.

Day	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Day 0	100	80	80	80	60	60	60	60	50	50	50
Day 1		100	80	80	80	60	60	60	60	50	50
Day 2			100	80	80	80	60	60	60	60	50
Day 3				100	80	80	80	60	60	60	60
Day 4					100	80	80	80	60	60	60
Day 5						100	80	80	80	60	60
Day 6							100	80	80	80	60
Day 7								100	80	80	80
Day 8									100	80	80
Day 9										100	80
Day 10											100

Create a capacity definition

Allocate work to different task attributes based on their reserved capacity percentage and defined source of capacity.

Before you begin

Role required: wm_admin, wm_manager, and wm_internal_contractor_manager, sn_fsm_tp.fsm_territory_manager, sn_fsm_tp.fsm_territory_planner

About this task

You can define capacity and frequency of work to be performed based on the selected source of capacity, such as number of hours, tasks, or agent's schedule.

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Definition.**
2. Click **New.**
3. On the form, fill the fields.

Capacity Definition

Field	Description
Name	Name of the capacity definition.
Description	Description of the capacity definition.
Set capacity by buckets	<p>An option to make the appointment booking slots available based on the defined capacity of work on a daily basis. OR</p> <p>An option to set the work capacity at bucket level, such as morning, noon, or evening, so that the appointment slots are available throughout the day until the capacity is not breached.</p> <ul style="list-style-type: none"> • This option is available only when Tasks or Hours is selected from the Capacity by field. • This option is available only when Daily is selected from the Frequency field.
Capacity by	Source of the capacity definition, such as agent schedule, tasks, or hours.
Capacity	<p>Capacity of work to be performed, such as the number of tasks or number of hours. This value is based on an agent's per-day capacity.</p> <p>This field appears only when Tasks or Hours is selected from the Capacity by field.</p>
Frequency	Frequency of the work to be performed, such as daily, weekly, monthly, or yearly. This value is based on the total capacity of the assigned work group.

Field	Description
	<ul style="list-style-type: none"> This field is available only when Tasks or Hours is selected from the Capacity by field. This field is automatically set to Daily if the Set capacity by buckets option is selected.
Allocation Schedule	<p>Name of the allocation schedule to be linked to the capacity definition record. So that the right amount of capacity is released for the work order tasks till the last available appointment booking slot.</p> <p>This field appears only when the Set capacity by buckets option is cleared.</p>
Reservation name	<p>Name of the capacity reservation.</p> <p>This field appears only when the Set capacity by buckets option is cleared. For more information, see Capacity reservation rules.</p>

4. Click Submit.

Result

Work is allocated to each task attribute based on its reserved capacity.

Create capacity buckets to distribute the workload capacity for a day

Create capacity buckets for the selected capacity definition to distribute the workload capacity at different appointment slots throughout the day.

Before you begin

Select the **Set capacity by buckets** option to create capacity buckets.

Role required: wm_admin, wm_manager, and wm_internal_contractor_manager, sn_fsm_tp.fsm_territory_manager, sn_fsm_tp.fsm_territory_planner

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Definitions**.
2. Open a capacity definition from the list.
3. In the Capacity Buckets related list, click **New**.
4. On the form, fill the fields.

Capacity Buckets

Field	Description
Name	Name of the capacity bucket.
Start	Start time from when the bucket is available to assign the work order tasks/book appointments.

Field	Description
End	End time until when the bucket is available to assign the work order tasks/book appointments.
% Capacity	Percentage of workload capacity assigned to the bucket.
Allocation Schedule	Name of the allocation schedule to be linked to the capacity bucket.
Reservation Name	Name of the reservation rule to be linked to the capacity bucket.

5. Click **Submit**.

6. Repeat steps 3 through 5 until the complete capacity is distributed throughout the day.

Result

The defined capacity is distributed among the newly created capacity buckets.

Create a capacity assignment

Create the capacity assignment of work based on the selected source, such as agent schedules, tasks, or hours.

Before you begin

Role required: wm_admin, wm_manager, and wm_internal_contractor_manager, sn_fsm_tp.fsm_territory_manager, sn_fsm_tp.fsm_territory_planner

About this task

Work assignment rules:

- If work capacity is based on the agent's schedule, tasks are assigned to agents in internal work groups.
- If work capacity is based on the number of tasks or hours, tasks can be assigned to agents in both internal and external work groups.

Procedure

1. Navigate to **All > Field Service Management > Capacity Management > Capacity Assignments**.
2. Click **New**.
3. On the form, fill the fields.

Capacity Assignment

Field	Description
Capacity Definition	Name of the capacity definition based on which the capacity will be assigned. For more information, see .
Type	Select the capacity type.

Field	Description
	<ul style="list-style-type: none"> • Territory Internal Agents: Choose to assign work specifically to internal agents within a designated territory. • Territory Contractor Group: Choose to assign work to contractor groups within a territory. Ideal for managing external contractor teams within specified territories. • None: Select to have the flexibility to choose either assignment groups or contractor groups. When the Territory Planning plugin is installed, choosing "None" directs you to select contractor groups. Without the plugin, it allows you to proceed to the next step of choosing a group facilitating to decide based on your workflow. <p>Note: If the Territory Planning plugin is activated, Territory internal agents and contractor groups options appear in the field.</p>
Group	<p>Internal, external, or both types of work groups based on the source of the capacity definition.</p> <p>Note: The capacity definitions created for Agent Schedule can be assigned to internal groups only.</p>
Territory	<p>Select territory for the capacity assignment.</p> <p>Note: The Territory field appears when the Territory Planning plugin is activated.</p>
Recurrence	<p>Select any existing recurrence plan. Recurrence plans can be customized for specific territories or groups. This plan defines how often a capacity assignment repeats. It helps create a regular schedule for task allocation. For example:</p> <ul style="list-style-type: none"> • Assign tasks every weekday (Monday to Friday) • Allocate installation type tasks every weekend (Saturday and Sunday) • Set up capacity for the first Monday of every month

Field	Description
Active	Option for applying the assignment while calculating the capacity.
Effective from	Define the start date for the capacity assignment.
Effective to	Define the end date for the capacity assignment. This field is automatically set to the Effective to date if you enter a value in the Repeat for field.
Repeat for	Specify the duration (e.g., 2 weeks, 3 months) for which the recurrence is applied. You must consider the capacity definitions while assigning tasks. This field appears only when Tasks is selected in the Capacity by field in the Capacity Definitions form.
Time zone	Select the appropriate time zone for agents to ensure consistency across regions.

4. Click **Submit.**

Create a demand channel

Demand channels help organize and manage work by efficiently distributing resources. When creating a reservation rule, you can allocate a specific percentage of capacity to a particular demand channel. By tagging work orders or tasks with demand channels, you ensure they are routed correctly, improving resource allocation and scheduling accuracy.

Before you begin

Role required: wm_admin, wm_manager, sn_fsm_tp.fsm_territory_manager, sn_fsm_tp.fsm_territory_planner

Ensure the Field Service Territory Planning (com.snc.fsm_territory_planning) plugin is installed.

About this task

The scheduling system uses demand channel attributes (conditions and order) for capacity reservation rules based on demand channels. For more information, see [Create a reservation rule](#)

Procedure

- 1. Navigate to **All > Field Service > Capacity Management > Demand Channel**.**
- 2. Click **New**.**
- 3. On the form, fill the fields.**

Demand Channel

Field	Description
Name	Name of the demand channel. For example, "Install" for installation-related tasks.
Active	Select this option to activate the demand channel.
Order	Order of preference of the demand channel.
Default	If selected, this demand channel becomes the default one. For instance, if the total capacity is 100, and specific channels like "Install" and "Breakfix" take up 30 and 50 respectively, the remaining 20 will be allocated to this default channel.
Table	Select the table used to categorize demand channel. By default, this is set to <code>wm_task</code> .
Condition	Conditions to filter the data. For example, setting the work type as "Installation" ensures the system checks the reservation rule for capacity usage when a task is received.

4. Click **Submit.**

The demand channel is created. You can use the demand channel in the reservation rules.

Example: Create demand channel for installation related task assignments

Let's create a demand channel named "Install":

1. Name: Install
2. Active: Yes
3. Order: 1
4. Default: False
5. Table: `wm_task`
6. Condition: `work_type = Installation`

By defining these fields, the "Install" demand channel in the reservation rule will help route installation related tasks correctly and ensure proper capacity allocation.

Related topics

[Field Service Territory Capacity Analytics dashboard](#)

Create a capacity assignment override

Override the default capacity assignment rules to accommodate changes in the plan within a capacity definition. This allows you to update existing capacity assignments for different time intervals, capacity reservation rules, and recurring patterns without creating a new capacity definition.

Before you begin

Role required: `wm_admin`, `wm_manager`, and `wm_internal_contractor_manager`

About this task

Consider the following points:

- The highest ranked override record is considered when there is conflict in the date range.
- Overrides must not conflict with existing recurrence plans for the same capacity definition.
- Overrides must adhere to the base recurrence plan of the capacity assignment. For example: if the base recurrence plan is "Monday to Friday," an override for "Saturday" will trigger a validation error.

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Assignments.**
2. Open the capacity definition.
 - a. Select a capacity definition from the list.
 - b. Open the capacity assignment of a group by clicking the **Effective from** date link for a capacity definition group.
For example, click the *Effective from* date link in the row of *NorCal Technicians* group.
3. In the Capacity Assignment Overrides related list, click **New.**
4. On the form, fill the fields.

Capacity Assignment Override

Field	Description
Effective from	Date from which the capacity assignment should be applied.
Effective to	Automatically populated based on the value in the Repeat For field.
Recurrence	Select any existing recurrence plan. Recurrence plans can be customized for specific territories, groups, or tasks. This plan defines how often a capacity assignment repeats. It helps create a regular schedule for task allocation. For example: <ul style="list-style-type: none"> ○ Assign tasks every weekday (Monday to Friday) ○ Allocate installation type tasks every weekend (Saturday and Sunday) ○ Set up capacity for the first Monday of every month
Override by	Select the type of override. For example, capacity reservation, capacity value, or capacity definition.
Repeat for	Number of days, weeks, months, or years the override will remain active. Recurrence frequency is taken into account while assigning workloads.

Field	Description
Capacity Reservation	Name of the capacity reservation to be overridden.
Overridden capacity value	Number of hours or tasks to override in the existing capacity assignment. This value is determined by the selected frequency in the capacity definition.
Apply for all buckets	Enable this option to override capacity assignment rules for all capacity buckets within the selected capacity definition.
Applicable to bucket	Specify the name of the capacity bucket where the override rule will apply.
Rank	Determines the sequence to pick. The highest ranked override record of the given day is preferred.

5. Click **Submit.**

Result

The capacity assignment override record is created and applied to the selected capacity definition or buckets of selected capacity definition.

Example workflow for assigning tasks to agents based on Capacity and Reservations

Explore how dynamic scheduling intelligently distributes tasks, considering the defined capacity reservations, work types, and overflow settings, ensuring optimal utilization of resources in the group.

As an administrator, your goal is to ensure that assignment group works 25% on 'Install' work type, 25% on 'Break fix' work type, and the remaining 50% can be of any type or no type of work. The following example demonstrates how to achieve this through dynamic scheduling.

Prerequisites:

- Ensure Dynamic Scheduling is enabled.
- Ensure that your target assignment group, for instance, the 'North Group', has at least one active member.
- Create an agent schedule record ('agent_work_schedule') for a user, specifying the 'Day Shift (8:00-5:00)' work schedule.

1. Capacity Definition Setup:

- Create a capacity definition record with 'Capacity by' set to 'Tasks', assigning a value of '4' tasks daily.
- Set the frequency of this capacity to 'Daily' to align with your scheduling needs.

2. Capacity Reservation Rules: Create two capacity reservation rules

- Rule 1 ('Install Work'): Conditions set for 'Work type' as 'Install,' allocate 25%, and allow overflow.
- Rule 2 ('Break Fix Work'): Conditions set for 'Work type' as 'Break fix,' allocate 25%, and allow overflow.

3. **Tag Reservations to Definition:** Link the created reservation rules to the definition crafted in step 1, forming a structure.
4. **Capacity Assignment:**
 - Within the related lists of the capacity definition, create a new 'Capacity Assignment' record.
 - Link it to the capacity definition, select the target assignment group ('North Group'), set the effective start date to the current date and time, and repeat for '5' times to auto-fill the end date.
5. **Create work order of install type:**
 - Create a work order ('wm_order'), specifying the location as 'Colorado,' and mark it 'Ready for qualification'.
 - Open the work order task, ensuring the dispatch group and required assignment group ('North Group') are filled.
 - Set the work type as 'Install' and click 'Qualified'; the task transitions to the Pending Dispatch state.
 - Repeat the process twice to have 3 'Install' type tasks available for the day.
6. **Create work order of break-fix type:**
 - Create a work order ('wm_order'), specifying the location as 'Colorado,' and mark it 'Ready for qualification'.
 - A new work order task ('wm_task') is generated; open it, ensuring the dispatch group and required assignment group ('North') are filled.
 - Set the work type as 'Break fix' and click 'Qualified'; the task moves to the Pending Dispatch state.
 - Repeat the process twice to have 3 'Break fix' type tasks available for the day.
7. **Create work order tasks without a specified work type:**
 - Open a work order task, ensure the dispatch group and required assignment group ('North') are filled, and leave the work type field blank.
 - Click 'Qualified'; the task transitions to the Pending Dispatch state.
 - Repeat this process twice to have 3 tasks without a specified work type available for the day.
8. **Dynamic Scheduling:**
 - Open the four tasks created in the list view and click 'Auto Assign' from the overflow action menu.
 - A modal window displays possible assignments, allocating tasks based on the predefined 25% capacity for 'Install' type, 25% for 'Break fix' type, and the remaining 50% for any type or no type at all.

Configuring Workforce Optimization for Field Service

Enable Workforce Optimization for Field Service and configure settings to use the Scheduling, Teams, and Coaching applications.

Configuration overview

The steps for configuring Workforce Optimization for Field Service are:

1. Activate Workforce Optimization for Field Service

You can activate the Workforce Optimization for Field Service plugin (com.snc.app_fsm_wfo) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow Store applications and plugins if they are not already installed.

2. Set up scheduling in Workforce Optimization for Field Service

Set up scheduling to manage events using the team calendar. You can create different types of event categories. Use scripted extension points to customize event types.

3. Set up Teams in Workforce Optimization in Field Service

Organize your teams into assignment groups and create reports for those groups so that you can gain visibility into the team's performance.

4. Set up coaching in Workforce Optimization in Field Service

Manage agent skills and assess the quality of completed tasks. Use Predictive Intelligence to recommend skills for agents. Train your agents with internal and external learning content.

Related topics

[Workforce Optimization](#)

Activate Workforce Optimization for Field Service

You can activate the Workforce Optimization for Field Service plugin (com.snc.app_fsm_wfo) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Workforce Optimization for Field Service solution is highly modular, offering a wide range of capabilities such as Scheduling, Coaching, and Teams applications in Field Service Manager Workspace. Workforce Optimization for Field Service (com.snc.app_fsm_wfo) plugin activates all other dependent plugins to enable users to the Scheduling, Coaching, and Teams applications in Workforce Optimization for Field Service.

Workforce Optimization for Field Service requires the following ServiceNow Store applications. Ensure that these applications are installed before you install Workforce Optimization for Field Service.

Required ServiceNow Store applications to use in Field Service Manager Workspace

Shift Scheduling for Field Service (com.snc.sn_fsm_shift_schdl)

Integrate the agent shift scheduling functionalities for Field Service Management Workforce Optimization. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Team Management for Field Service (com.snc.sn_fsm_team_mgmt)

Implements team performance functionalities for Field Service Management Workforce Optimization. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Coaching (com.sn_coaching)

Facilitates the coaching of employees on their work through the use of coaching opportunities that can be conditionally configured. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Coaching with Learning (com.sn_coach_learning)

Coach employees on their work through the use of coaching opportunities, taking advantage of critical moments in a process, that can be conditionally configured. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Role required: admin

About this task

The following items are installed with Workforce Optimization for Field Service :

- Roles
- Scheduled jobs
- Tables

For more information, see [Workforce Optimization for Field Service components](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Workforce Optimization for Field Service plugin (com.snc.app_fsm_wfo) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Result

The Workforce Optimization for Field Service plugin when activated successfully adds **Enable Shift Scheduling for FSM to Determine Availability** to the Field Service configurations inside the Assignment tab.

Note:

You must enable the **Enable Shift Scheduling for FSM to Determine Availability** toggle switch after setting up schedules, skills, teams, and coaching for your agents to optimize your Field Service workforce accordingly.

Setting up scheduling in Workforce Optimization for Field Service

Setting up scheduling enables you to manage events using the team calendar. You can create different types of event categories. Use scripted extension points to customize event types.

Configuring schedule adherence properties enables you to calculate the adherence and conformance of your agents so you can improve the operational efficiency of your organization.

The threshold settings for adherence and conformance indicate how many minutes early or late an agent can clock in or clock out to a scheduled work shift without being considered non-adherent. For more information about the adherence and conformance properties introduced with the Scheduling application, see [Workforce Optimization for Field Service components](#).

Related topics


[Scheduling in Workforce Optimization for Field Service](#)

Configure event categories

Configure field settings for event categories. You can create or update field configurations for events and specify if an event category should be excluded from shift coverage calculations for agents.

Before you begin

Important:

To access the next generation of the Workforce Optimization for Field Service application, transition to the Workforce Optimization for Field Service application that is available from the ServiceNow Store. You can now configure Workforce Optimization for Field Service using the [UI Builder](#) . For more information see, [Configuring Workforce Optimization for Field Service](#).

Role required: sn_shift_planning.admin

About this task

The following event category configurations are available by default:

- Work
- Meeting
- Training
- Break
- Time Off
- Actual Work
- Personal

Procedure

1. Navigate to **All > Workforce Optimization for FSM > Scheduling > Event Categories**.
2. In the **Event Categories** list, select **New**.
3. In the **Name** field, enter a name for the event category.
4. If you want to exclude this event category for agent coverage calculation, enable the **Exclude from coverage** check box.
5. In the **Event field configuration** dialog box, edit the following configuration as necessary:

Note:

You can remove any property that doesn't apply to a type of event.

```
{
  "create": {
    //Creates an event type
  }
}
```

```

field      "attendees": {          //Adds the Attendees
mandatory  "mandatory": true,    //Sets this field as
read-only  "readOnly": false,    //Sets this field as
           "allowAllUsers": false //Allows you to only add
users managed by the logged-in user; to add any user, set this
value to true
           },
           "startDate": {
           "mandatory": true,
           "readOnly": false
           },
           "endDate": {
           "mandatory": true,
           "readOnly": false
           },
           "additionalSelectors": [ //Add custom fields
to the form
           {
           "fieldLabel": "Select Shift", //Name of the
field that displays on the form
           "table":
"sn_shift_planning_shift_plan", //Name of the table referenced
by the field
           "field": "name", //Any field from the
selected table whose display values must be shown in the
custom field
           "value": "",
           "mandatory": true,
           "additionalQueryString": ""
           }
           ]
           },
form      "edit": {              //Edit an event type
           "attendees": {
           "mandatory": true,
           "readOnly": false,
           "allowAllUsers": false
           },
           "startDate": {
           "mandatory": true,
           "readOnly": false
           },
           "endDate": {
           "mandatory": true,
           "readOnly": false
           },
           "additionalSelectors": [
           {
           "fieldLabel": "Select Shift",
           "table": "sn_shift_planning_shift_plan",
           "field": "name",
           "value": "",
           "mandatory": true,

```

```

        "additionalQueryString": " "
    }
}

```

6. Select Submit.

Create event types to display on the team calendar with Workforce Optimization for Field Service

Create multiple events from the same category and add them to the team calendar with Workforce Optimization for Field Service.

Before you begin

Role required: sn_shift_planning.admin

About this task

The following event category configurations are available by default:

- Work
- Meeting
- Training
- Break
- Time Off
- Actual Work
- Personal

Procedure

- 1. Navigate to All > Workforce Optimization for Field Service > Scheduling > Event Configuration.**
- 2. Click New.**
- 3. On the form, fill in the fields.**

Event Type

Field	Description
Name	Unique name for the event type.
Category	Type of event, for example, meeting, break, or time off.
Priority Order	<p>Priority of the event type that you want to exclude from the coverage. The higher the number the higher the priority.</p> <p>For example, say you are attending a work event for four hours in a day. You have marked that time window both as time off and as a meeting event type. If time off has a higher order of priority, then the application excludes that event type from coverage.</p>

Field	Description
Color	Color that identifies this type of event in the team calendar.

4. Click **Submit.**

Modify schedule adherence and conformance formulas by using extension points

Configure and adjust the schedule adherence and conformance formulas using scripted extension points so that you can customize their calculations for your organization.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > System Extension Points > Scripted Extension Points**.
2. Search for `sn_shift_planning.ScheduleAdherenceExtPt`.
3. On the form banner, click the link here to edit the record.
4. To create your extension point script, click **Create Implementation** in the related links.
5. To create your extension point script, click **Create Implementation** in the related links.
6. Modify the formulas for calculating the schedule adherence and conformance in the `getAdherencePercentage` and `getConformancePercentage` methods.
7. Click **Update**.

Result

The schedule adherence and conformance calculations are based on the formulas in the implementation.

Event type extension point in Workforce Optimization for Field Service

Use extension points to call scripts for event categories such as meeting, time off, or work time.

Use scripted extension points to integrate customizations without altering the core components in the application code. When customizing a base application, you implement the scripted extension points by creating the custom script includes and registering them against the scripted extension points.

You can use extension points to create events such as meeting, training, and time-off requests. For example extension point implementations, see the following extension instances in the Implementations related list:

Extension points for event types

Category	Extension Script
Meeting	<i>AgentScheduleMeetingEventManager</i>
Break	<i>AgentScheduleBreakEventManager</i>
Training	<i>AgentScheduleBreakEventManager</i>
Time off	<i>AgentScheduleBreakEventManager</i>
Work	<i>AgentScheduleWorkEventManager</i>

Extension points for event types (continued)

Category	Extension Script
Actual Work	<i>AgentScheduleActualWorkEventManager</i>
Personal	<i>AgentSchedulePersonalEventManager</i>

Setting up Teams Workforce Optimization for Field Service

Organize your teams into assignment groups and create reports for those groups so that you can gain visibility into the team's performance.

You can define a set of key Performance Indicators (KPIs) to analyze the performance of all groups within your team. Drill into the metrics for a group, an agent, or a work order task within the team all from a central location.

As an administrator, you can configure KPIs as well as child KPIs. The child KPIs appear when you drill-down into top level KPIs. For example, Closed Work Order Tasks KPI has P1 Tasks, P2 Tasks as child KPIs.

Related topics

[Teams in Workforce Optimization](#)

Create KPI groups to monitor team performance

Create key performance indicator (KPI) groups with the KPIs that matter most to your teams. When you associate KPI groups with assignment groups, you can monitor your team's performance.

Before you begin

Role required: sn_team_perf.team_performance_admin

Procedure

1. Create a KPI group.
 - a. Navigate to **All > Workforce Optimization for Field Service > Team Performance > KPI Groups**.
 - b. Click **New**.
 - c. In the **Name** field, enter a name for the KPI group.
 - d. In the **Type** menu, select **Teams**.
 - e. Right-click the form header and click **Save**.
You can add up to five KPIs to a KPI group.
2. Add KPIs to a KPI group.
 - a. In the KPIs related list, click **New**.
 - b. In the **KPI** field, select the KPI to apply for this group.
 - c. Click **Submit**.
3. Add KPI assignment groups to the KPI group.

Note:

- You can associate a KPI assignment group only to one KPI type.
- You can add additional managers to each assignment group.
- You can associate a user with a KPI group as the primary assignment group for that user.

a. In the **Assignment Groups** tab, click **Edit**.

b. Move the desired assignment groups from the Collection to the Assignment Groups list.

c. Click **Save**.

Add managers to a KPI assignment group

Assign one or more managers to each KPI assignment group so that they can gain visibility into the group and monitor the team's performance.

Before you begin

Role required: sn_wfo_admin or admin

About this task

You can associate a user with a primary assignment group by selecting the group in the user record. For more information, see [Create a user](#).

Procedure

1. Navigate to **All > Workforce Optimization for Field Service > Team Performance > Additional Manager**.
2. Click **New**.
3. In the **Assignment Group** field, select an assignment group.
4. In the **Manager** field, select a manager you want to add for this assignment group.
5. Click **Submit**.

Setting up coaching in Workforce Optimization for Field Service

Manage agent skills and assess the quality of completed tasks. Use Predictive Intelligence to recommend skills for agents. Train your agents with internal and external learning content.

Related topics

[Coaching in Workforce Optimization for Field Service](#)

Configure an indicator to display in the Coaching Overview tab in Workforce Optimization for Field Service

Display any Performance Analytics indicator that has the Assigned to and Assignment group breakdowns to display in the **Coaching Overview** tab in the Coaching application. The indicators can display the average quality of work in the past 30 days or more.

Before you begin

Set the map application scope to **Coaching**. For more information, see [Set map application scope](#).

Role required: admin

Procedure

1. In the application navigator, enter `sys_properties.list`.
2. Click **New**.
3. Enter the field values in the following table.

System Property form

Field	Value
Name	sn_coaching.coaching_overview_default_quality_indicator
Application	Coaching
Type	string
Value	<pre>{"title": "<name>", "sys_id": "<sys id>"}</pre> <p>where <name> is the name of the indicator that you want to display in the Coaching Overview tab and <sys id> is the unique record identifier (sys_id) of the indicator. For more information, see Unique record identifier (sys_id).</p> <p>For example:</p> <ul style="list-style-type: none"> ○ Name: % of P1 incidents resolved on first call. ○ Sys ID: 0423e59387401010ca99e12397cb0bbb <pre>{"title": "% of P1 incidents resolved on first call", "sys_id": "0423e59387401010ca99e12397cb0bbb"}</pre>
Read roles	sn_coaching.coach

4. Click **Submit**.

Result

The configured indicator replaces the existing indicator in the **Overview** tab in the Coaching application in Workforce Optimization for Field Service.

Set up skill prediction to resolve similar tasks in Workforce Optimization for Field Service

Collect skill data based on the skills agents have used for task completion. Use supervised learning to recommend these skills for agents to resolve similar work order tasks. You can also find patterns in how skills are used to complete the task and use unsupervised learning to recommend skills for agents.


Before you begin

- Set up skills. For more information, see [Skills Management](#).
- Predictive Intelligence must be set up and configured on your instance to train the models. For more information, see [Predictive Intelligence](#).

Activate the Skill Recommendation application plugin (com.snc.sre) to use predictive intelligence for recommending skills.

Role required: sn_sre.admin

Procedure

1. Configure the properties for the Skill recommendation application.
For more information, see [properties for the Skill Recommendation application](#).
2. Run the solution definition models such as *Recommend similar skills for cases* or *Recommend skills from similar cases* to train the supervised and unsupervised solutions.
For more information on training a solution, refer to [Create and train a similarity solution](#) .
3. Run the *Start skill prediction* scheduled job every day to start predicting skills for cases or agents.
This scheduled job is inactive by default. When you activate it, the job runs daily at 1:00 a.m. on all cases resolved the previous day. The job then adds the skills to the User Predicted Skill [sn_sre_user_predicted_skill] and Task Predicted Skill [sn_sre_task_predicted_skill] tables.

Note:

Recommended skills will start appearing once the number of records in the User Predicted Skill [sn_sre_task_predicted_skill] table exceeds the value defined in the *sn_sre.user_predicted_skill_threshold* property. For more information, see [Workforce Optimization for Field Service components](#).

Use extension points for skill prediction

Use scripted extension points to customize skill prediction for tasks.

Before you begin

Role required: admin

About this task

You can create multiple implementations for each extension point and provide an order number for each implementation. The implementation that has the lowest order number is executed.

Note that the Skill Recommendation extension point is included with the Skill Recommendation (com.snc.sre) plugin.

Procedure

1. Navigate to **All > System Extension Points > Client Extension Points**.
2. From the Extension Points list, select **Skill Recommendation** (sn_sre.SkillPredictionAPI).
3. Either create a new skill recommendation implementation or modify an existing one.
 - To create a new skill recommendation implementation, click **Create Implementation**.
 - To modify an existing implementation, from the Implementations related list, select a class.
4. Modify the script as required.
5. Click **Update**.

Configure a list menu to display in the Learning tab in Workforce Optimization for Field Service

Add list or list categories to modify the list menu for Coaching with Learning in the Coaching application in Workforce Optimization for Field Service.

Before you begin

Set the map application scope to **Coaching With Learning**. For more information, see [Set map application scope](#) .

Role required: admin

Procedure

1. In the application navigator, enter `sys_ux_list_menu_config.list`.
2. Click the **Learning list** record.
3. Under the UX list category, click **New**.
4. Enter the following field values.

List category values

Field	Value
Title	Enter the name of the list category.
Description	Enter a short description about the list category.
Order	Enter a value to set the position of the list category in the current list.
Active	Select the check box to make the list category visible.

5. Click **Submit**.
6. Under UX Lists, click **New** to create lists under that list category.
7. Enter the following field values.

List values

Field	Value
Title	Enter the name of the list.
Table	Select the table for the data that you want to display in the list.
Configuration	Select Learning List .
Columns	Select the columns that you want to display for the table.

8. Click **Submit**.
9. Click **Update**.

Integrate third-party learning management systems with the Coaching with Learning application

Connect your ServiceNow instance with third-party learning sites to pull learning content into your repository.

Before you begin

i Important:

The Coaching with Learning application is available with the Workforce Optimization for Field Service (sn_fsm_wfo) from the ServiceNow Store. To enable this feature, see [Activate Workforce Optimization for Field Service](#).

Role required: learning_admin

About this task

Activating the Coaching with Learning (sn_coach_lrn) plugin enables the following applications from the ServiceNow Store:

- [Enterprise Service Management Integrations Framework](#) 
- Cornerstone spoke
- Pluralsight spoke
- Udemy spoke

Procedure

1. Create the integration source for each of your third-party systems.

Note:

Cornerstone, Pluralsight, and Udemy integrations are available by default.

- Navigate to **Integrations Framework > Source**
- Click **New**.
- In the **Name** field, enter the name of the integration source, for example, Pluralsight.
- Right-click the form header and click **Save**.
- In the Integration Services related list, click **New**.
- On the form, fill in the fields:

Integration Service form

Field	Description
Name	Name of the integration service, for example, Pluralsight.
Import set tables	List of intermediate tables which store records from the third-party system. Note: This field is enabled only when Scheduled pull service is selected in the Service type field.
Flow	Flow that interacts with the third-party system to pull the required data.
Active	Option to indicate that the integration service is available for use.
Application	Application that contains the integration service record.
Source	Name of the third-party system with which you want to integrate your application.
Order	Order in which you want to run transformation scripts.
Service type	Option to indicate the type of service: Scheduled pull or Ondemand Push.
Retry policy	Configuration set to push a record if the previous push fails. Note: This field appears only when Ondemand Push service is selected in the Service type field.

g. Click **Submit**.

2. Integrate your ServiceNow instance with your third-party learning source accounts. The records from the third-party content are pulled into your ServiceNow instance using an API call. To successfully run this API call, you must set certain properties:

- a. In the application navigator, enter `sys_properties.list`.
- b. For each of the following properties, set the value to **1638400**:
 - `com.glide.transform.json.max-partial-length`
 - `com.snc.process_flow.reporting.serialized.val_size_limit`

For more information on these system properties, see [Coaching With Learning System Properties](#).

3. Activate schedule flows to integrate third-party learning content.

- a. Navigate to **Process Automation > Flow Designer**
- b. In the **Flows** section, select each of the following flows and click **Activate**:
 - Trigger Cornerstone Learning Sync
 - Trigger Pluralsight Learning Sync
 - Trigger Udemy Learning Sync

c. Navigate to **Learning > Administration > Learning System Configuration**

d. Select each of the third-party learning sources and set the **Active** field to **true**.

Schedule flows automatically run on a scheduled basis to synchronize third-party learning content into your ServiceNow instance.

For more information, see [configure the third-party integration sources](#).

4. After you configure the third-party integration sources, you can refresh the entire third-party content or synchronize new and updated services into your ServiceNow instance.

- To refresh the entire content, set the `full_pull` property to true.

Note:

For best results, periodically refresh the entire content.

- To synchronize new and updated services, set the `full_pull` property to false.

a. Open any integration source for which you want to pull content.

b. Click **Run Job**.

The integration framework pulls the corresponding third-party learning courses into the Learning External Content [sn_lc_external_content] table on your ServiceNow instance.

When synchronizing new and updated services, the content is populated as described in the following table.

Third-party content

Third-party content	New and Updated Services Synchronized
Udemy	<ul style="list-style-type: none"> ○ Courses ○ User activity

Third-party content	New and Updated Services Synchronized
Cornerstone	<ul style="list-style-type: none"> ○ Users ○ Courses ○ User activity
Pluralsight	<ul style="list-style-type: none"> ○ Courses ○ Course progress such as percentage

What to do next

[Add external courses to Coaching With Learning](#) 

External Content Integration Sources

When you integrate Coaching with Learning with third-party learning management systems, the source record for Cornerstone OnDemand, Pluralsight, and Udemy applications are automatically created in the Enterprise Service Management Integrations Framework. These source records contain a predefined set of properties and integration services.

Integration source record for Cornerstone OnDemand

Field	Description
Name	Name of the record in Enterprise Service Management Integrations Framework: Cornerstone.
Properties	<p>Set of properties that are predefined for Cornerstone OnDemand application.</p> <ul style="list-style-type: none"> • <i>page_size</i>: Number of records that are pulled through an API call from Cornerstone OnDemand application. • <i>full_pull</i>: When set to True, all active users and learning courses from the Cornerstone OnDemand system are pulled into the ServiceNow instance. <p>When set to False, modified users, modified transcripts, and updated courses are pulled from the Cornerstone OnDemand system into the ServiceNow instance.</p> <ul style="list-style-type: none"> • <i>url_prefix</i>: Deep link prefix to pull learning objects from Cornerstone OnDemand system during run time. • <i>pull_offset_hours</i>: The time, in hours, calculated from the last successful run for the next synchronization to occur <p>For example, the last successful run was on 12/12/2021 at 17:00:00, <i>pull_offset_hours</i> is set to 5, and <i>full_pull</i> is set to False. The next pull fetches all the records that have been modified from 12/12/2021 12:00:00 until current date and time.</p>
Integration Services	Services interact with Cornerstone OnDemand application to pull or push learning courses.

Integration source record for Cornerstone Ondemand (continued)

Field	Description
	<ul style="list-style-type: none"> • <i>Course assign service</i>: Assigns a course to an employee in the Cornerstone Ondemand application. • <i>Sync users</i>: Maps users in the Cornerstone OnDemand system to users in the ServiceNow system using email IDs. <p>Note: If you want to use <code>user_id</code> or <code>user_name</code> field for mapping users, override getCornerstoneUser method in the <code>sn_lc.UserMappingUtil</code> script.</p> <ul style="list-style-type: none"> • <i>Courses</i>: Pulls learning courses from Cornerstone OnDemand system into the ServiceNow instance. • <i>User activity</i>: Pulls details of user activity on learning courses from Cornerstone OnDemand system into the ServiceNow instance.

Integration source record for Pluralsight

Field	Description
Name	Name of the record in Enterprise Service Management Integrations Framework: Pluralsight.
Properties	<p>Set of properties that are predefined for the Pluralsight system.</p> <ul style="list-style-type: none"> • <i>page_size</i>: Number of records that are pulled through an API call from Pluralsight. • <i>full_pull</i>: When set to True, all the learning courses are pulled from Pluralsight into the ServiceNow instance. When set to False, the updated learning course's progress is pulled from Pluralsight into the ServiceNow instance. • <i>pull_offset_hours</i>: Value that is considered for pulling modified records. <p>For example, the last successful run was on 12/12/2021 at 17:00:00, <i>pull_offset_hours</i> is set to 5, and <i>full_pull</i> is set to False. The next pull fetches all the records that have been modified from 12/12/2021 12:00:00 until current date and time.</p>
Integration Services	<p>Integration services interact with Plural sight application to pull learning courses into ServiceNow.</p> <ul style="list-style-type: none"> • <i>Courses</i>: Pulls learning courses from Pluralsight into the ServiceNow instance. • <i>Course progress</i>: Pulls the progress of learning courses from Pluralsight into the ServiceNow.

Integration source record for Udemy

Field	Description
Name	Name of the record in Enterprise Service Management Integrations Framework: Udemy
Properties	<p>Set of properties that are predefined for the Udemy system.</p> <ul style="list-style-type: none"> • <i>page_size</i>: Number of records that are pulled through an API call from Udemy into the ServiceNow instance. • <i>full_pull</i>: When set to True, all the learning courses are pulled from Udemy into the ServiceNow instance. When set to False, updated learning courses and learning course progress are pulled from Udemy into the ServiceNow instance. • <i>pull_offset_hours</i>: Value that is considered for pulling modified records. <p>For example, the last successful run was on 12/12/2021 at 17:00:00, <i>pull_offset_hours</i> is set to 5, and <i>full_pull</i> is set to False. The next pull fetches all the records that have been modified from 12/12/2021 12:00:00 until current date and time.</p>
Integration Services	<p>Integration services interact with Udemy application to pull learning courses into ServiceNow.</p> <ul style="list-style-type: none"> • Pull Courses: Pulls learning courses from Udemy into the ServiceNow instance. • Pull user activity: Pulls details of user activity on learning courses from Udemy into the ServiceNow instance.

Configuring denormalized tables in Field Service Management

Denormalized databases collapse information stored in multiple tables into a single table. This collapsing of relevant data improves Field Service Management load time.

Data in Field Service Management

The data for Field Service Management is typically stored in a normalized database. In normalized databases, tables can extend other tables, creating parent tables and child tables. The Field Service Management normalized databases use tables and records to manage data and processes, such as work orders, agents, and equipment. This normalized data structure that stores and organizes information is helpful for humans to add and manage the data in the tables, but it's not the quickest or most efficient way for computers to process the data in the tables.

Denormalized tables

Denormalized databases collapse multiple tables into a single table, taking what was once in multiple table cells across multiple tables and puts them into one table. This collapsing of relevant data from multiple tables rows allows Field Service Management to query and return information faster since the data being fetched can be accessed from a single table instead of multiple tables.

Denormalized tables in Field Service Management

The way that denormalized tables work for Field Service Management, is when you load an application like Dispatcher Workspace, all of the tables used to retrieve data from are queried up front and the information is stored in a denormalized table. Then when you're working in Dispatcher Workspace, when information is needed to execute a request, the denormalized table is queried, instead of the multiple tables that were necessary to query before. If the necessary data is not present in the denormalized table, then the data is retrieved from the original table source.

Denormalized tables just make it easier for information to be delivered to dispatchers. The way you add data and manage tables in Field Service Management remains the same. There is no change to how you update or add information to tables.

When data is added to denormalized tables, the process is divided into 4 jobs. For example, if you have 1600 agents the processing of those agent's data will be divided into four jobs each with 400 agents. You can change the number of jobs that process data, but you must contact ServiceNow to do this.

You can change the number of weeks' worth of data that's stored in denormalized tables. For more information, see [Update the data stored in denormalized tables](#). For information related to the data model used to create denormalized tables, see [Data model for denormalized tables in Field Service Management](#).

The following features use denormalized tables:

- Appointment booking
- Dynamic scheduling
- Dispatcher Workspace

Important:

Never change any of the data directly in a denormalized table. This can cause Field Service Management to break and should never be performed, even by a professional developer.

Denormalized table properties

There are three system properties that control table denormalization for Field Service Management. For more information, see the properties listed below on [Properties installed with Field Service Management](#).

Denormalized tables are enabled by default. You must disable the property `sn_fsm.wm_weekly_resource_span` to turn off denormalized tables.

Warning:

Only system administrators should change these values.

- `sn_fsm.wm_weekly_resource_span`
- `sn_fsm.wm_weekly_resource_span.number_of_weeks_in_past`
- `sn_fsm.wm_weekly_resource_span.number_of_weeks_in_future`

Update the data stored in denormalized tables

You can change the number of weeks' worth of data stored in denormalized tables.

Before you begin

Role required: admin

About this task

⚠ Warning:

You must be a system administrator and a professional developer to complete this procedure.

You can have a maximum total of 20 weeks' worth of data stored in denormalized tables, that includes the current week. For example, you can change the number of weeks from the default to 4 weeks in the past, and 10 weeks in the future, which would total 15 weeks worth of data stored in denormalized tables.

By default, the number of past weeks worth of data stored in denormalized tables is two weeks. By default, the number of future weeks worth of data stored in denormalized tables is 8 weeks.

If you customize and add data to Field Service Management from an external source, or enable or disable Workforce Optimization then you must follow the steps below.

Procedure

1. Navigate to **All**, type `sys_properties.list`, and press Enter.
2. Search for and select the denormalized table system property (sn_fsm.wm_weekly_resource_span).
3. Set the value to **false**, and select **Update**.
4. Choose from the following options:
 - Search for and select `sn_fsm.wm_weekly_resource_span.number_of_weeks_in_past` – to change the number of weeks worth of data stored in the past.
 - Search for and select `sn_fsm.wm_weekly_resource_span.number_of_weeks_in_future` – to change the number of weeks worth of data stored in the future.
 - Add an external data source.
 - Enable or disable Workforce Optimization.
5. **Optional:** Update the value from the default to the new number if you are changing a property value, and select **Update**.
6. Use the background script to truncate the weekly resource span table.
7. Search for and select the denormalized table system property (sn_fsm.wm_weekly_resource_span).
8. Set the value to **true**, and select **Update**.

Setting up work orders and tasks

When work is required, create a work order to provide information for the Field Service agents to fulfill the request. Create work order tasks to break down the tasks required to complete the work order.

You can use Field Service Management and only set up work orders and work order tasks to start work. Or you can set up additional configurations to automate some of the process around creating and managing work orders and work order tasks.

Configuration overview

The steps for setting up work orders and tasks are:

1. Configuring work orders

Configure Field Service Management to use a task-driven process, wherein each work order encapsulates a list of essential tasks. Upon the creation of a work order, a corresponding task record is instantly generated. Task-driven processing can provide structure and clarity for intricate projects.

Work orders in Field Service Management store information about requested work, including customer names and addresses, locations where work is to be performed, and any associated configuration items. Work orders can include one or more tasks that contain specific details about the work to be performed, such as required agent skills or part requirements. Work orders are the driving force behind Field Service Management. They define what Field Service agents must do to complete their jobs.

2. Configuring work order tasks

Categorize work orders are comprised of at least one, but usually multiple, work order tasks. You can categorize work order tasks by type so that work order tasks of the same type are consistent, like if a certain type of task always requires a specific assignment group. Additionally, you can require agents to complete questionnaires before, during, or after completing a task. For example, if you want agents to complete a safety checklist before starting a task, you can use questionnaires. Work order tasks also allow for automatic time recording that tracks and translates time worked on a task into a time card.

3. (Optional) Configuring Field Service Work Configurations

Customize the information captured on a work order task to better suite similar but different workflows. For example, maintenance and installations can have a fixed cost associated with them, but break-fix tasks may need to capture additional information related to the cost and duration of the task. With Field Service work configurations, you can set up these task types to capture specific information.

4. (Optional) Configuring Planned Work Management

Manage flexible work plans for any recurring activity that requires regular maintenance. For example, you can use planned Work management to schedule maintenance, inspections, or audits. You can install the Planned Work Management application (com.snc.fsm_planned_work_management) if you have the admin role.

5. (Optional) Configuring the auto-population of access hours in a work order task

Define default access hours for a work order task based on customer preferences such as account, location, or asset, enables the auto-population of the access hours for the task. For example, you can set the access hours for a business to guarantee that work order tasks are only assigned to the location when it's open. You can activate the Field Service Management Access Hours Management plugin (com.snc.fsm_access_hours) for Field Service Management if you have the admin role.

6. (Optional) Activate linear assets support in Field Service Management

Enable effective management of assets like roads, telephone lines, or fiber cables. You can enable the Field Service Management application to support linear assets by activating the Enterprise Asset Management plugin (com.sn_eam) if you have the admin role.

7. (Optional) Configuring Playbooks for Field Service Management

Enable agents to manage the life cycle of work order tasks by guiding them through sequences of activities. Playbooks show detailed workflows associated with a specific type of work order task and the activities that must be completed to resolve that task.

8. (Optional) [Configuring Field Service Management Customer Experience](#)

Provide customers with timely updates about their reported issues, enabling them to track the location of agents and provide agent feedback. You can install the Field Service Management Customer Experience plugin (com.snc.fsm_customer_experience) if you have the wm_admin role.

9. (Optional) [Request task management](#)

Split requests into separate tasks. This can be helpful if you want to assign different parts of a task to different people, assign parts of a task to people in different locations, or schedule parts of a task to be completed at different times.

10. (Optional) [Configuring Field Service Quality Management](#)

Add the "Reviewer" role to Field Service Management. The reviewer can review tasks and provide feedback. You can install the Field Service Management plugin (com.sn_fsm_quality) if you have the wm_admin role.

Note:

As Field Service Management is built on ServiceNow Mobile Platform, its access is primarily role-driven. The roles are configured to be more flexible and less restrictive.

Users with the wm_agent role can work with operational records and perform actions such as update certain task fields, record the task time, and cancel tasks even if they are not assigned to them, unless restricted by Access Control Lists (ACL) or query rules. To enforce stricter controls on the wm_agent role, you can:

- Enforce access control at record and field levels. For more information, see [Configure an ACL rule](#).
- Apply pre-query filtering. For more information, see [CSM Query Rules](#).
- Apply dynamic filtering. For more information, see [Before Query business rules](#).
- Apply restrictions at the UI level. For more information, see [Using UI policies](#).

To enforce strict separation between different departments or to separate sensitive data, domain separation is recommended. It ensures data isolation, domain-specific access controls, and controlled data sharing.

Configuring work orders

Field Service Management uses a task-driven process, wherein each work order encapsulates a list of essential tasks. Upon the creation of a work order, a corresponding task record is instantly generated. Task-driven processing can provide structure and clarity for intricate projects.

Work orders are the driving force behind Field Service Management. They define what Field Service agents must do to complete their jobs.

Work orders follow a specific life cycle and move through a series of states. The states can vary based on your configuration. For example, if you want to qualify work orders before they're assigned, then you can enable qualification. Qualification adds the Awaiting Qualification and Qualified work order states. For more information, see [Work order states](#).

Each work order requires at least one task, with the option to add more to cover all facets of the request. While tasks can be assigned to different groups and operate autonomously from the main work order request, the progression and completion of these tasks influence the overall state of the parent work order.

Preconfigured example work orders are included with the Field Service Management Demo Data plugin (com.sng.work.management.demo).

Configuration overview

Optionally, set up one or more work order configurations.

- [Configuring work order templates](#)

Use templates to populate fields on a work order. For example, if you regularly add certain skills or parts to work orders, you can use templates to add those fields faster.

- [Configure the qualification state for work orders](#)

Allow for a quality check to make sure that the work order meets a certain standard before it moves to the next step.

- [Customizing state flows](#)

Customize state flows to replace the standard process that controls how requests and their associated tasks move between states. This can be helpful if you need to add, remove, or change the states that work orders follow.

- [Configuring Template Management for Field Service](#)

Provide advanced configurations for work order templates that enable the templates to work dynamically while creating a work order.

- [Signed PDF summaries for closed work orders](#)

Allow customers to digitally sign a PDF, and confirm that work orders are closed. A summary of the work order is created that includes the completed tasks, parts used and returned, incidental expenses, and the time required to complete the work.

Configuring work order templates

Work order templates allow you to quickly create well-defined work orders.

These templates automatically create tasks and part requirements on work orders for common activities, such as password reset or memory upgrades. Work order templates and work order task templates are added to the product catalog when the Field Service Management plugin is activated.

You can enable the advanced configurations for work order templates by activating the Template Management for Field Service plugin (com.snc.fsm_template_management). Activation of this plugin adds the source table mapping, attribute mapping, work order task templates, and work order templates to the product catalog that helps configure the template to work dynamically. For more information, see [Configuring Template Management for Field Service](#).

Users with the `wm_admin` or `model_manager` role can create, edit, and delete work order templates and work order task templates.

When you create a template, you can use knowledge articles for a work order or work order tasks. You can then add Contextual Search to the knowledge article. Contextual Search helps you to create, or work on, a task with relevant knowledge articles based on the content of the task.

- **Define Search Fields:** Specify the criteria to be used to search across your desired content sources.
- **Work Order Form:** Add the contextual search results field to the Work Order form. Configure the form and add the **Contextual Search Results** field to your desired location on the form.

- **Work Order Task Form:** Add the contextual search field to the Work Order Task form. Configure the form and add the **Contextual Search Results** field to your desired location on the form.
- **Article Attachment field:** Set the field where the knowledge article will be attached. Configure the **glide.knowman.attach.fields** property to include **work_notes** field.

Configuration overview

The steps for setting up work order templates are:

1. Create a work order template

Use work order templates populate work orders with repeatable information. For example, templates can populate an Assignment group, during the template creation process. This ensures consistent information is included across all related records.

2. (Optional) Create a knowledge article for a work order template

Help Field Service technicians stay consistent when completing the same types of work orders. For example, a knowledge article can be installation guides, maintenance procedures, or checklists.

3. (Optional) Manage a work order SLA

Use work order SLAs help ensure SLAs are met in time. Work order SLAs can be viewed or managed from the work order or work order task form so they're easy to access.

Related topics

[Prepare work orders](#)

[Manage work order tasks](#)

[Apply a work order template](#)

[Assign a knowledge article to a work order or work order task](#)

Create a work order template

Field Service Management uses the work order template as a source of information for populating fields in a work order.

Before you begin

Role required: `wm_admin` or `model_manager`


About this task

The work order template pre populates work orders with repeatable information. You can add fields, such as the Assignment group, during the template creation process. This enables you to create templates that work for both work orders and tasks, ensuring that consistent information is included across all related records.

Procedure

1. Navigate to one of the following:
 - **All > Product Catalog > Templates > Work Order Templates.**
 - **All > Field Service > Catalog & Knowledge > Work Order Templates.**
 - **All > Template Management > Work Order Templates.**
2. Select **New**.
3. On the form, fill in the fields.

Work Order Template form

Field	Description
Request information	
Name	[Required] Unique and descriptive name for this template.
Short description	[Required] Content that is copied into the Short description field of a work order when this work order template is used. The exception to this is a work order created from an incident, problem, or change request, which always uses the short description of the source task, even when a template is applied.
Description	More in-depth description of the purpose of the template.
Checklist template	Select a checklist template to add a checklist to the work orders created from this work order template. For information on checklists, see Checklists  .
Workflow	The workflow for work orders created from this template.
Qualification group	The qualification group for work orders created from this template.

4. If desired, add a field to the Request Information section of the template:

- a. Select **Edit fields** and select the field from the choice list.
- b. Add a value to the field.
- c. Select the gear icon next to the field and enable the **Show** option if you want this field to be displayed when this template is selected from the Field Service Catalog. If desired, enable the **Mandatory** option to make this a mandatory field.

5. Select **Add Task** to add one or more tasks.

6. On the form, fill in the fields.

For fields in the Task Information section of the form, you can select **Copy Task Template** and add the information from a task template if desired.

Work Order Template form

Field	Description
Task information	
Work configuration	The Work configuration for this task. Selecting a work configuration will automatically populate the Task type and Work type fields. Work configurations must be configured for this field to appear. For more information, see Configuring Field Service Work Configurations .
Task type	The type of task to create. The default is Work Order Task .
Name	Unique and descriptive name for this task. As you start to enter the description of the task, fields for your next task appear.
Description	A description of this task.
Task skills	Skills required by an agent to work on the task.

Field	Description
	<p>Note: Select the Mandatory check box to indicate that this skill is required to perform the work order task.</p>
Parts and quantities	<p>Parts requirements and quantities, as needed. If you selected Part requirements are not needed by agents on the Field Service Configuration screen, the Parts and quantities fields aren't displayed.</p> <p>Note: Select the Mandatory check box in front of all the parts that are required to perform the work order task.</p>
Dispatch group	<p>The dispatch group used to select the individuals who will fulfill the task. By default, ServiceNow filters the list of available dispatch groups by their proximity to the work order task location. When the work.management.limit.location property is set to false, the system displays all dispatch groups for selection, without any consideration of location. If only one dispatch group is available for a work order task in any location, ServiceNow automatically enters that group in this field. If the Field Service will not use the dispatch queue option is selected in the Field Service Configuration screen, this field isn't displayed.</p>
Depends on	<p>Identifies the task of tasks that must be completed before this task can be performed. You cannot make an entry in the first task until you have created subsequent tasks.</p>
Checklist template	<p>Select a checklist template to add a checklist to the tasks created from this work order template.</p>
Work Type	<p>The type of work to be performed by an agent or crew to complete the task.</p> <ul style="list-style-type: none"> ○ Break Fix ○ Install ○ Planned Maintenance <p>For more information, see Create work types for a work order task.</p>
Needs Crew	<p>Indicator of work type associated with work order tasks that requires a group of agents to work on it. Administrator or Initiator can select or clear this option.</p>

7. If desired, add one or more fields to the Task Information section of the template from the table selected in the **Task type** field.

- a. Select **Edit fields** and select the field from the choice list.
- b. Add a value to the field.

Note:

As you work with tasks, you can select the min and max buttons to expand and collapse task information. If needed, you can also change the order of tasks using drag-and-drop.

If you set the **Templates will not create a dedicated catalog item** option on the Field Service Configuration screen, the template screen includes a **Publish** button. You can select this button if you want to manually publish a template as an item in the catalog. If the option is set to **Templates will create a dedicated catalog item**, the **Publish** button won't be displayed and the template will be automatically added to the catalog.

8. When you have completed your entries, select **Submit**.

Create a knowledge article for a work order template

You can add knowledge articles and guides (such as installation guides, maintenance procedures, and checklists) to the default knowledge base for hardware, software, and consumable templates.


Before you begin

Role required: wm_admin or model_manager

Procedure

1. Navigate to one of the following:
 - **Product Catalog > Templates > Work Order Templates**
 - **Field Service > Catalog & Knowledge > Work Order Templates**
2. Click **New**.
3. Fill in the fields on the Work Order Template form, as appropriate.

Work Order Template form

Field	Description
Request information	
Name	[Required] Unique and descriptive name for this template.
Short description	[Required] Content that is copied into the Short description field of a work order when this work order template is used. The exception to this is a work order created from an incident, problem, or change request, which always uses the short description of the source task, even when a template is applied.
Description	More in-depth description of the purpose of the template.
Checklist template	Select a checklist template to add a checklist to the work orders created from this work order template. For information on checklists, see Checklists  .
Workflow	The workflow for work orders created from this template.
Qualification group	The qualification group for work orders created from this template.

Any hardware, software, and consumable assets you create and assign to the new template are displayed in the **Knowledge** related list on the template record.

SLAs for Field Service Management

SLAs determine when work on a work order or work order task should be complete. SLAs are important because they keep work orders on schedule. For example, you may have a contractual obligation to complete any break/ fix work orders tasks within a certain time. You can use SLA to make sure the contractual obligation is met.

Configuration overview

The steps for setting up work orders and tasks are:

1. Manage a work order SLA

Manage SLAs that you have configured. You can create SLAs, or change the ones that you have already created.

2. View a task with an SLA

View all work order tasks associated with work orders that have SLAs.

3. Suspend and resume SLA timing from a work order

Pause and resume the timing on a work order SLA from the work order.

4. Suspend and resume SLA timing from a work order task

Pause and resume the timing on a work order SLA from the work order task.

5. Delete an SLA from a work order

Remove an SLA from a work order but leave it available for use with other work orders.

Manage a work order SLA

View and manage work order SLAs from the Work Order form or the Work Order Task form.

Before you begin

Role required: `wm_admin`, `wm_dispatcher`

About this task

Activities include suspending and resuming SLAs and deleting SLAs from a work order.

Procedure

To view the list of work orders with SLAs, navigate to **Field Service > Work Order > Work Order SLAs**.

View a task with an SLA

View all work order tasks associated with work orders that have SLAs.

Before you begin

Role required: `wm_admin`, `wm_dispatcher`

Procedure

1. Navigate to **All > Field Service > Work Order > Work Order Tasks With SLAs**.

Tasks that are behind schedule are highlighted according to how delinquent they are.

2. To view SLAs for a work order, select the **Task SLAs** related list in the Work Order form.

The information in this list includes:

Work order form

Information	Description
Actual elapsed time	Total running time of the SLA since it started, including any time that has passed since a breach.
Actual elapsed percentage	Total percentage of the SLA time period that has elapsed. This value can rise above 100% after a breach and increases until the task is completed.
Actual time left	Total time remaining until this SLA breaches. When the Actual elapsed percentage reaches 100%, this value is set to 0 seconds .
Business elapsed time	Amount of time that has elapsed for this SLA within the business calendar. For example, if the business calendar for this SLA is from 8am to 5pm on weekdays, then the running time for the SLA is computed between these hours only and not on weekends. If no business calendar is in effect, the business-elapsed time is the same as the actual elapsed time.
Business elapsed percentage	Percentage of the SLA time period that has elapsed on the business calendar for this SLA. If no business calendar is in effect, the business-elapsed percentage is the same as the actual elapsed percentage.
Business time left	Time remaining on the business calendar until this SLA is breached. If no business calendar is in effect, the business time left is the same as the actual time left. When the Business elapsed percentage reaches 100%, this value is set to 0 seconds .

Suspend and resume SLA timing from a work order

Pause and resume the timing on a work order SLA from the work order.

Before you begin

Role required: wm_admin, wm_initiator, wm_qualifier, wm_dispatcher, or a combination role

About this task

This is useful if a qualifier or dispatcher is waiting for information from the caller or for other actions to take place before continuing the work order.

Note:

Initiators can't view the SLAs attached to the work orders they suspend or resume.

Procedure

1. Navigate to a work order with an SLA using the path visible to your role:
 - **Field Service > Work Order > Work Order SLAs**
 - **Field Service > Work Order > Awaiting Qualification**
 - **Field Service > Work Order > Draft Work Orders**
2. Select an active work order.
3. On the work order record, add a work note explaining why the work order is suspended.

4. Select **Suspend.**

The system sets the **Stage** of the SLA to **Paused**.

5. Select **Resume to restart the SLA.**

The system resets the SLA to its previous stage.

Suspend and resume SLA timing from a work order task

Pause and resume the timing on a work order SLA from a work order task.

Before you begin

Role required: `wm_admin`, `wm_qualifier`, `wm_dispatcher`, `wm_agent`, or a combination role

About this task

This is useful for agents because it enables them to suspend the timing on the parent work order if they're waiting for information or for others to perform actions.

Procedure

1. Navigate to a work order task with an SLA using the path visible to your role:

- **Field Service > Work Order > Work Order Tasks with SLAs**
- **Field Service > Work Order > My Work Order Tasks**
- **Field Service > Work Order > Assigned to me**

2. Select an active work order task.

3. Add a work note explaining why you're suspending the work order.

4. Under **Related Links**, select **Suspend Work Order**.

The system sets the **Stage** of the SLA to **Paused**.

5. Select **Resume Work Order** to restart the SLA.

The system resets the SLA to its previous stage.

Delete an SLA from a work order

Remove an SLA from a work order but leave it available for use with other work orders.

Before you begin

Role required: `wm_admin`

Procedure

1. Navigate to **All > Field Service > Work Order > Work Order SLAs**.

2. Open a work order.

3. In the **Task SLAs** related list, select the check box beside the SLA name.


4. In the **Actions** choice list, select **Delete**.

Work order states

Work order follow a specific life cycle and move through a series of states, which are displayed in the State field on the work order record.

The request states displayed depend on the Field Service Management application, as indicated in the table.

Depending on your configuration, you can either qualify work orders after they are drafted, or they are immediately ready for dispatch. For more information on setting up qualification, see the Qualification is required for new requests section in [Global domain configurations](#).

Create or modify UI actions to add to work order [wm_order] and work order task [wm_task] forms. Use these actions to move work orders and work order tasks from one state to the next or to perform specific actions, such as launching questionnaires. For more information, see [UI actions](#) 

Field Service Management work order states

State	Description
Draft	Qualifier is not done describing the work.
Awaiting Qualification	The work order has been drafted but has not been qualified. Note: This state only shows if qualification is enabled.
Qualified	The request has been approved and is ready to be assigned. Note: This state only shows if qualification is enabled.
Ready for Dispatch	The request is ready to be assigned. Note: This state only shows if qualification is disabled.
Assigned	The request is pending acceptance from the assigned Field Service agent.
Accepted	The Field Service agent accepts the request and is ready to be worked on.
Work in Progress	Work on the request has started.
Closed Complete	The request was completed to specification.
Closed Incomplete	The request could not be completed as specified.
Canceled	The request was canceled.

Note: If you have qualification enabled and then disable it, then all existing work orders awaiting qualification, in draft, or already qualified are set to ready for dispatch.

Configure the qualification state for work orders

Enable work order qualification so work orders move from draft to awaiting qualification, and then qualified before they're ready for dispatch. Qualification allows for a quality check to make sure that the work order meets a certain standard before it moves to the next step.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Administration > Configuration**.
2. Turn on the switch that says **Qualification is required for new requests**.
3. Select **Save**.

Customizing state flows

State flows control the sequence in which records transition between states in the Field Service Management applications.

How Field Service Management task state flows work

State flows replace the standard process that controls how requests and their associated tasks move between states. The ServiceNow system creates business rules, client scripts, and UI actions that perform the transitions and field controls you specify. These programming elements remain in use while the state flow records that use them are present. When state flows on the Field Service Management table are deleted, the system attempts to delete any unnecessary programming elements that were created on that table. You can limit the selections for the State field to valid states for the transition, based on the starting state.



Important:

Creating custom state flows requires scripting knowledge.

State flows provide the following controls:

- **Manual transitions:** A UI action, created automatically by the system when you provide a condition or a script, initiates a transition.
- **Automatic transitions:** A business rule, created automatically by the system when you provide a condition and a script, initiates a transition when changes are made to a request or task.

Users with the `wm_admin` role can perform the following tasks:

- Create, read, add, update, or delete work order flows and work task flows.
- Trigger events on particular state transitions.
- Transition to another state automatically when data in a request or its task changes, or change states manually when the user selects a button.
- Limit the choice list for the State field to those end states that are valid transitions from the given start state.
- Control the visibility and behavior of selected fields on a target table when records in that table change states.
- Create custom state flows. Turn off the **State flows are enabled** option on the configuration screen.

Features available with state flows

- **Custom transitions:** Customize the order in which states can change for requests and task records.
- **Field controls:** Control the behavior and visibility of specific fields when a task changes states or reaches a specified end state.
- **State choice list:** Limit the values offered in a task record State field to valid states for that transition. This is the same client script that the system creates to manage field controls for state transitions.
- **Events:** Trigger events when a state transition occurs or when a record reaches a specific end state.

Start and end states

Users with the `wm_admin` role can create a custom state flow for processing that occurs when a task record makes a specific transition from one state to another. These records require a starting state and an ending state, and processing occurs during the transition between states. To perform some processing when a task record reaches a particular end state, you must define the end state. In some cases a state flow can have a starting state only, like when you perform some type of cleanup after a task is canceled. A state flow might have no starting or ending state if the processing in the record applies to more than one state transition. The solution is to store the business rule or client script in a state flow record and create a condition to trigger processing for any state change that requires it.

An example of this in Field Service Management is the Roll Up Changes business rule on the Work Order Task [`wm_task`] table. This business rule rolls up state changes that occur in tasks to the parent work order.

Configuration overview

The steps for setting up state flow customizations are:

1. [Configure state flows for work orders and work order tasks](#)

Configure the states that work orders, and work order tasks move between. This can be helpful if you have a specific sequence of states that help track work.

2. (Optional) [State flow dictionary overrides](#)

Define the starting state for all new work orders and work order tasks with dictionary overrides.

3. (Optional) [Work notes in state flows](#)

Add customized work notes to work order tasks when they reach a certain state. For example, you might include the note, "Task rejected by agent" in the Reject state flow.

4. (Optional) [Field controls in state flows](#)

Determine what happens if the system detects a specified state transition. For example, you might want the Problem field to be visible when an incident moves to the Awaiting Problem state.

5. (Optional) [Trigger events on state changes](#)

Configure a state flow to trigger a registered system event when a task transitions from a starting state to a specified end state. For example, you can use events to trigger email notifications and create script actions.

6. (Optional) [Rebuild state flows](#)

Rebuild state flows when a mismatch between existing and new sys_ids occurs.

7. (Optional) [State flow cleanup](#)

Cleanup the business rules, client scripts, and UI actions that the system creates to perform custom transitions that only exist while the state flow records that use them are present.

Configure state flows for work orders and work order tasks

State flows control the sequence in which work orders and work order tasks transition from one state to another. You can customize state flows to control the sequence in which records transition between states in Service Management applications.

About this task

Define all of the possible state transitions that represent the life cycle of a work order. However, customizing state flows requires scripting knowledge.

Before you begin

Role required: admin

Before customizing a state flow, make a copy of the state flow record for the transition you want to change and do all your customizations in the copied record. This allows the system to update the default state flow record automatically during an upgrade and enables you to revert to the default record if necessary.

Note:

The **State** field on the record is always read-only.

Procedure

1. Navigate to **All > Configuration > Field Service** then choose one of the following:

- **Work Order Flows**
- **Work Task Flows**

Important:

Make sure that you deactivate the original record so the system cannot use it.

2. Open the record for the transition you want to customize.

3. Right-click the form header and select **Insert and Stay**.

The system clears any values from the **Business rule** and **UI action** fields. A notification appears at the top of the form describing the action taken.

4. Ensure that the **Active** check box is selected.

5. In the appropriate section, configure a transition method:

- **Manual:** Click **Create UI Action** to create a button on the form that enables users to execute the transition manually. The system uses the value in the **Name** field as the label for the UI action. The UI action executes the script in the **Manual Script** field when the conditions are true
- **Automatic:** Click **Create Business Rule** to create the business rule. The business rule executes the script in the **Automatic Script** field when the conditions are true

6. Click **Create Client Script** to create the script that limits the values available a record's **State** field choice list to valid states for that transition.

7. Complete the **Field Controls** section to control how specific fields appear when a record changes states.

Note:

The system enforces the field controls with the same client script you created to filter the choice list for the **State** field.

8. Click **Update**.

9. Reopen the source record you copied and clear the **Active** check box.

Deactivating the original record allows the system to upgrade it normally when the instance is upgraded and prevents the system from using the record rather than your custom state flow.

10. Open the copied state flow record you want to customize.

11. On the form, fill in the fields.

Work task flow form

Field	Description
Number	Record number automatically generated by the ServiceNow® system.
[Required] Table	Table on which the state flow record runs. The possible tables are: <ul style="list-style-type: none"> Work Order Task [wm_task] Work Order [wm_order]
Starting state	Name of the state at the beginning of the transition.
Ending state	Name of the state at the end of the transition.
Client script	Client script to run for this transition. The client script controls the available starting and ending states you can select by limiting the contents of the State choice list to valid states.
Event	Name of an existing event to trigger when this transition occurs.
Name	[Required] State name as it appears in the choice list.
Roles	Roles required to configure the State field that uses the custom transition.
Active	Switch for enabling or disabling this state flow record.
Class	Available state flow classes: <ul style="list-style-type: none"> State Flow: Records created for state flows in all task-based tables except those in Field Service Management. Work Order Flow: Records created for state flows in the Work Order [wm_order] table. Work Task Flow: Records created for state flows in the Work Order Task [wm_task] table. <p>This field is required for users with the admin role. Users with the wm_admin role can only create state flow records in the Work Order Flow and Work Task Flow classes and cannot edit this field in the record.</p>
Override	Default starting value for the State field on all new records for the table named in the state flow record.

Field	Description
Work notes	Comments about this state flow transition.
Comment	Details about the customized record.
Manual (Runs scripts from a UI action that requires the user to click a button or related link.)	
Manual condition string	Conditions for enabling a UI action that cannot be defined with the condition builder. For example, you can use this string to define UI actions for mobile devices. This condition has an [and] relationship with the condition in the Manual condition field.
Manual condition	Condition builder for enabling a UI action that can be defined for fields in the target table. This condition has an [and] relationship with the condition in the Manual condition string field.
Manual script	Script that defines what the UI action does when the conditions are true. This script runs when the user clicks a button or a related link.
UI action	[Read-only] Names the UI action to enable for this transition. By default, this UI action creates a button on the task form. Click Create UI Action to create the button. The button inherits the name of the state flow record in which it was created.
Automatic (Runs a business rule automatically when a task record is changed and updated.)	
Automatic condition string	Conditions for running the business rule that cannot be defined with the condition builder. For example, use this condition to evaluate if the proposed transition is a valid flow. This condition has an [and] relationship with the condition in the Automatic condition field.
Automatic condition	Conditions for running the business rule that can be defined for fields in the target table. This condition has an [and] relationship with the condition in the Automatic condition string field.
Automatic script	Script that performs additional work when the condition is true. This script can do tasks such as update the date and time the transition occurred or notify someone of a milestone.
Business rule	Name of the business rule created for this transition. The business rule has a condition to ensure the validity of the flow. If that condition is true, the business rule performs the transition requested, using the starting and ending states from the Work Order Flow or Work Task Flow form.
Field Controls (Determines field properties when a record transitions between states.)	
Mandatory fields	Fields required when this transition occurs or when the Ending state is the current state of a work order or work order task.
Read only fields	Fields set as read-only when this transition occurs or when the Ending state is the current state of a work order or work order task.
Visible fields	Fields made visible when this transition occurs or when the Ending state is the current state of a work order or work order task.
Not mandatory	Fields set as optional when this transition occurs or when the Ending state is the current state of a work order or work order task.

Field	Description
Not read only	Fields that can be edited when this transition occurs or when the Ending state is the current state of a work order or work order task.
Not visible	Fields hidden when this transition occurs or when the Ending state is the current state of a work order or work order task.

State flow dictionary overrides

A dictionary override in a state flow defines the starting state for all new records in a specific table. You set an override in tables that extend a base table only, so that your customizations are applied only to the extended table.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Configuration > Field Service** then choose one of the following:

- **Work Order Flows**
- **Work Task Flows**

2. In a state flow record, select an **Ending state**.

This is the override value which becomes the starting state for all new records in the table named.

3. Click **Create Default Value**.

The system populates the **Dictionary override** field with a value of state, which is the field in the task table affected by the override. The Dictionary override field is read-only. After the override is created, the system hides the **Create Default Value** button on all subsequent state flow forms for that table.

Work notes in state flows

Work notes are used to communicate information about state transitions.

The state flow adds work notes into the **Work notes** field of any task making this transition. For example, you might include the note, "Task rejected by agent" in the **Reject** state flow, which occurs when the task moves from **Assigned** to **Pending Dispatch**. If an agent rejects the task and fails to enter a work note, this note tells the dispatcher why the task reappeared in the dispatch queue. Work notes added by an agent rejecting the task are appended to the work notes that are inherited from the state flow.

These rules apply to state flow work notes:

- For a state flow with no **Starting state**, the work note is added every time the task transitions to the **Ending state**.
- For a state flow with a **Starting state** and an **Ending state**, the work note is added only when the task transitions from that starting state to that ending state.
- If two state flows with work notes have the same **Ending state**, but only one has a **Starting state**, the system adds the work notes from the state flow with the starting state. This better matches the state flow work note to the more important transition between specific starting and ending states. In the example here, the work note information is more pertinent to a task moving from **Assigned** to **Pending Dispatch** than to a task that reaches the Pending Dispatch state from an undetermined beginning state.

Field controls in state flows

You can define controls for individual fields that are enforced when a record transitions between states.

The Field Controls section of the State Flow form enables you to determine what happens if the system detects a specified state transition. Field controls also allow you to define what happens if the end state is the same state the form is opened in. The control is applied only to existing fields on the form. State flows can't add fields to the form.

For example, you might want the **Problem** field to be visible when an incident moves to the **Awaiting Problem** state. If the incident state changes to **Awaiting User Info**, you hide the **Problem** field and make the **Caller** field required.

Configure state flow records with an ending state only and create the correct behavior for every ending state you want to control. This verifies that the field controls are set properly when the user selects a new state, and also when the user returns a record's **State** field to the original state. Only specify a full state transition, with both a starting and ending state, when you want a particular behavior for that precise state transition.

Note:

State flows use client scripts to enforce field controls. It's possible that your settings can be changed by existing UI policies, which execute after client scripts.

Trigger events on state changes

You can configure a state flow to trigger a registered system event when a task transitions from a starting state to a specified end state. For example, you can use events to trigger email notifications and create script actions.

Before you begin

Role required: admin

About this task

When you attach an event to a state flow, the ServiceNow system creates a business rule called **State Flow Events for <table name>** for the table specified in the state flow. If you specify a start and end state, the business rule executes when the record transitions from the start state to the end state. If the state flow only specifies an end state, the business rule executes whenever that end state is reached. The system creates one business rule for all state flows containing events on a single table. When all events or all state flows on a table are deleted, the system deletes the business rule.

To create an event that fires when a work order task moves from a starting state of **Work in Progress** to an end state of **Closed Complete**.

Procedure

1. Navigate to **All > Field Service > State Flows > Work Task Flows**.
2. Select the Work Order Task table called Work Order Task [wm_task].
3. Select **New**.
4. Open the state flow record named **Close Complete**.
5. Select `task.closed` in the **Event** field and save your changes.

The ServiceNow system automatically creates a business rule called **State Flow Events for wm_task**.

Rebuild state flows

Administrators can rebuild state flows when a mismatch between existing and new sys_ids occurs.

When you use an XML file to import state flows into an instance, the system attempts to match the incoming states with existing states by comparing sys_ids. Because the sys_ids of items in a choice list can vary between instances, the system can fail to match the states, even though they're otherwise identical.

When matching fails, the start and end states of affected records are left empty or contain numeric values. To repair these records, navigate to **State Flows > Admin > Rebuild State Flows**. This module runs a script that compares the numerical value of each item in the **State** field choice list until it finds a match in the imported state flow record.

An example of when to rebuild a state flow is if you have state flows from another Service Now application, like Customer Service Management, and want to use them for Field Service Management. You would export an XML file from the Customer Service Management state flows, then upload that XML file to the Field Service Management state flows. If there are mismatching states used in Customer Service Management and Field Service Management, then you must rebuild the Field Service Management state flows.

State flow cleanup

The business rules, client scripts, and UI actions that the system creates automatically to perform custom transitions exist only while the state flow records that use them are present.

When a state flow on a table are deleted, the system attempts to delete any unnecessary programming elements that were created on that table, using these criteria:

State Flow Elements Deleted in Cleanup

Element	Deleted When
UI action	The state flow that created it is deleted.
Business rule	
Dictionary override	
Business rule that processes events triggered by a state flow	All state flows for the table specified that have events configured are deleted.
Client script (onLoad)	All state flows for the table are deleted.
Client script (onChange)	All state flows with field controls are deleted.
Work notes business rule	All state flows with field controls or work notes are deleted.

State flow example

Your business processes might require work order tasks to be accepted automatically when dispatched to an agent.

Before you begin

Role required: admin

About this task

Create a new state flow record that automates the transition from Pending Dispatch to Accepted and bypasses the Assigned state in which agents can reject tasks. This prevents the system from running the manual script associated with UI actions. The automatic script performs the jobs that the manual script performed, such as updating the date and time the task was dispatched, or to do additional work such as sending a notification.

Procedure

1. Navigate to **All > Field Service > State Flows > Work Task Flows**.

2. Open the **Assigned** record that defines a task transition from a starting state of **Pending Dispatch** to an ending state of **Assigned**.

This is an automatic state change that occurs when an agent's name is added to the Assigned to field and the task is updated.

3. Change the name of the state flow.

In this example, change the name to **Skip Agent Acceptance**.

4. Change the value in the **Ending state** field to **Accepted**.

This transition allows you to bypass the **Accept** state flow record that enables agents to reject tasks.

5. Set up the condition criteria in the following fields:

- **Automatic condition string:** This condition ensures that the current state is at **Pending Dispatch** and the value in the **Assigned to** field changes. For example, `current.state == 10 && current.assigned_to.changes()`.
- **Automatic condition:** The condition **[Assigned to] [is not empty]** ensures that all dispatched tasks are accepted automatically.
- **Automatic script:** The automatic script sets the time the task was dispatched. For example, use method: `current.dispatched_on = gs.nowDateTime()` ;.

Note:

The previous two condition statements have an **[and]** relationship. In this example, the business rule runs when a task in a state of **Pending Dispatch** is assigned to any agent.

6. Copy the record using the **Insert and Stay** command.

This action increments the record number and clears the **Business rule** field. The system automatically creates a new business rule, using the name of the new state flow record. The Skip Agent Acceptance business rule moves the task from **Pending Dispatch** to **Accepted** automatically when a dispatcher enters a user name in the **Assigned to** field. Note that any changes you make to this state flow record in the future are executed by this business rule.

7. Ensure that the **Active** check box is selected.

8. In the Work Task Flows list, locate the **Accept** state flow record and change the **Active** status to **false**.

This action deactivates the transition that allows agents to accept tasks and moves the state flow directly from **Pending Dispatch** to **Accepted**.

Configuring Template Management for Field Service

Set up the advanced configurations for work order templates to enable the templates to process data dynamically instead of using the static information described in the work order templates.

Template Management for Field Service provides advanced configurations for work order templates that enable the templates to work dynamically while creating a work order.

As an administrator, you can use templates to dynamically identify the information for populating fields in a work order and creating tasks through the following procedures:

- Enable the work order templates to map information from source table to work order attributes. For more information, see [Configuring data mapping](#).
- Identify and create appropriate tasks for a work order based on the defined filtering conditions. For more information, see [Configuring standalone task templates](#).
- Use extension points to customize the process of identifying the source of work order. For more information, see [Extension points in Field Service Management](#).

Configuration overview

The steps for setting up template management are:

1. Activate Template Management for Field Service

Install the Template Management for Field Service plugin (com.snc.fsm_template_management) if you have the admin role.

2. (Optional) Configuring data mapping

Configure work templates to fetch fields from any table and add them to a work order form. The source table can be a case, incident, or a change made to the table.

3. (Optional) Configuring standalone task templates

Use template management enables you to create standalone work order task templates and links them to another work order template. This enables the work order templates to identify an appropriate task and create it for different work orders based on the filtering conditions.

Activate Template Management for Field Service

You can activate the Template Management for Field Service plugin (com.snc.fsm_template_management) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Role required: admin

About this task

Activation of Template Management for Field Service activates the Field Service Management (com.snc.work_management) plugin if it is not already active.

The following items are installed with Field Service Template Management:

- Tables
- Script includes
- Business roles

For more information, see [Template Management for Field Service components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Template Management for Field Service plugin (com.snc.fsm_template_management) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

i Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Configuring data mapping

Configure the work order templates to fetch data from a source table to populate fields in a work order form while creating a work order. The source table can be case, incident, change, or others depending on the source of origin for a work order.

You first create a table map to specify the fields to be copied from the source table to the work order table and then link the table mapping to a work order template. The extension points in template management, enables your work order template to process the followings configuration. For more information, see [Extension points in Field Service Management](#).

Configuration overview

The steps for setting up data mapping configurations are:

1. [Create field mapping from a source table to a work order](#)

Use table mapping to ensure that when a work order is created from its source, the information from the source table is copied to the appropriate target fields in the work order.

2. [Enable work order template to fetch data from the source table](#)

Enable work order template to identify the source of work order and then map data from that source table to the work order fields.

Create field mapping from a source table to a work order

Create a table map to configure the fields that are copied from a source table to the work order fields. The source of a work order can be a case, change, incident, or others.

Before you begin

You must activate the Template Management for Field Service plugin (com.snc.fsm_template_management).

Role required: admin

About this task

Table mapping ensures that when a work order is created from its source, the information from the source table is copied to the appropriate target fields in the work order.

Procedure

1. Navigate to **All > Field Service > Template Management > Table Mapping**.
2. Click **New**.
3. On the form, fill in the fields.

CSM Table Map form

Fields	Description
Mapping Name	The table map name.
API Name	The API for this table map. This field is automatically set.
Source Table	The source table for the map. For example, case, incident, change, or more.
Active	Option to enable the mapping from the source to the target tables.
Application	Read only. The application for this table map. This field is automatically set.
Advanced Field Mapping	Option to enable the advanced field mapping.
Target Table	The target table for the map. For example, wm_order.
Use Advanced Condition	Option to enable the advanced condition mapping, which uses a script. If enabled, add a script in the Advanced Condition field.
Advanced Condition	The script to use if the Use Advanced Condition field is enabled.
Conditions	Use the condition builder to select the conditions that apply to the table map.
Order	Order of priority for processing multiple matching map definitions simultaneously to resolve dependencies. <ul style="list-style-type: none"> ○ If there is only one matching table map, the system uses that map. ○ If there are multiple matching table maps with the same order, the system uses the map with the older created date. ○ If there are multiple matching table maps with different orders, the system uses the map with the highest order.

Fields	Description
Advanced Field Mapping	<p>Option to map fields using advanced scripts.</p> <p>Note:</p> <ul style="list-style-type: none"> ○ If the same source or target field is configured in both the basic and advanced field mappings, the advanced field mapping overrides the basic field mapping. ○ If the fields configured in the basic and advanced field mapping are different, the field configurations in the advanced field mapping are appended to the field configurations in the basic field mapping. <p>This field is available only when the method of mapping is advanced and Advanced Field Mapping option is selected.</p>

4. Click **Submit.**

The table map is created by mapping the selected source table to the work order table.

5. Create field mapping to copy information from the source field to an appropriate field in the work order.

- a.** In the Basic Field Mapping related list, select **New**.
- b.** On the form, fill in the fields.

CSM Field Map form

Field	Description
Table Map	<p>The table map name that is used for mapping fields.</p> <p>This field is automatically set.</p>
Source Table	<p>The source table for the map.</p> <p>This field is available only when the method of mapping is basic and the Advanced option is not selected.</p>
Source Field	<p>Column on the source table for field mapping.</p> <p>This field is available only when the method of mapping is basic and the Advanced option is not selected.</p>
Application	<p>The application for this field map.</p> <p>This field is automatically set.</p>

Field	Description
Target Table	The target table for the map. For example, wm_order. This field is automatically set.
Target Field	Columns on the work order table that you want to populate with the mapped source field value.
Order	Order of priority for processing mapped fields.
Active	Option to enable the mapping of information from the source field to the work order field.
Advanced	Option to map fields using advanced scripts. Note: <ul style="list-style-type: none"> If the same source or target field is configured in both the basic and advanced field mappings, the advanced field mapping overrides the basic field mapping. If the fields configured in the basic and advanced field mapping are different, the field configurations in the advanced field mapping are appended to the field configurations in the basic field mapping.

c. Click **Submit**.

6. Optional: To map more field, repeat step 5.

Result

The source and target tables are mapped and ready to copy information from the source field to an appropriate field in the work order.

Enable work order template to fetch data from the source table

Enable work order template to identify the source of work order and then map data from that source table to the work order fields. This can be achieved by associating a table map with the work order template.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Template Management > Attribute Mapping**.
2. Select **New**.
3. On the form, fill in the fields.

Template Attribute Mapping form

Field	Description
Table map	Name of the mapping stored in the CSM table map.
Order model	Name of the work order template for which you want to use the table-mapping configurations.

4. Select **Submit**.

Result

The work order template is enabled to copy data from the source table to the corresponding work order fields based on the associated table mapping. You can find this newly created attribute mapping in the Template Attribute Mapping related list in the work order template form.

Configuring standalone task templates

Template management enables you to create standalone work order task templates and link them to different work order templates. This enables the work order templates to identify an appropriate task and create it for different work orders based on the defined filtering conditions.

You first create standalone work order task templates and then map them to the work order templates.

Configuration overview

The steps for setting up standalone task template configurations are:

1. [Create a work order task template](#)

Create a standalone work order task template, which can be used by different work order templates to create the same task for their work orders.

2. [Enable a work order template to create relevant tasks for a work order](#)

Add the standalone task template to a work order template along with filtering conditions.

Create a work order task template

Create a standalone work order task template, which can be used by different work order templates to create the same task for their work orders. It saves you the effort of creating the same task template every time for each work order template.

Before you begin

You must activate the Template Management for Field Service plugin (com.snc.fsm_template_management).

Role required: admin

Procedure

1. Navigate to **All > Field Service > Template Management > Work Order Task Templates**.
2. On the form, fill in the fields.

Task information form

Fields	Description
Task type	The type of task to create. The default is Work Order Task.
Name	Unique and descriptive name for this task.
Short Description	Summary of this task
Description	A description of this task.
Parts and quantities	Parts requirements and quantities, as needed. If you selected Part requirements are not needed by agents on the Field Service Configuration screen, the Parts and quantities fields are not displayed.
Checklist template	Select a checklist template from the list to add a checklist to the tasks created from this work order template.
Dispatch group	The dispatch group used to select the individuals who fulfill the task.

3. Click **Submit**.

Result

A standalone task template is created and ready to be mapped it to any work order template.

What to do next

After creating a standalone task template, map it to a work order template. This enables the work order template to create similar tasks for different work orders, if required. See [Enable a work order template to create relevant tasks for a work order](#).

Enable a work order template to create relevant tasks for a work order

Add the standalone task template to a work order template along with filtering conditions. This enables the work order template to identify and create the same task for different work orders only when the filtering conditions matches.

Before you begin

You must activate the Template Management for Field Service plugin (com.snc.fsm_template_management).

Role required: admin

Procedure

1. Navigate to **All > Field Service > Template Management > Work Order Templates**.
2. Open a work order template from the Work Order Templates list.
3. In the Service Order Task Models related list, select **Add**.
4. On the form, fill in the fields.

Service Order Task Models form

Field	Description
Order Model	Name of the work order template to which you're adding the task template. This field is automatically set based on the selected order model.
Table	Table that is associated with this work order template. For example, wm_order.
Task Model	Name of the work order task template that you want to add to the work order template.
Order	Order in which the task template should be evaluated to create the task for a work order.

5. Add filter conditions.

a. Select Add Filter Condition.

b. Create the condition.

For example, **[Account] [is] [Boxeo] AND [Active] [is] [true]**.

c. If you want to add an alternate condition set to the query, select **New condition set and add the conditions for the alternate set.**

The conditions to help determine the task for a work order when using this work order template are set.

6. Select Submit.

Result

The work order template is enabled to create this task for different work orders if the defined filtering conditions match.

Signed PDF summaries for closed work orders

In Field Service Management, customers can digitally sign and confirm work orders that are closed with the Closed Complete or Closed Incomplete state. A PDF summary of the signed work order is then created.

The summary includes the completed tasks, parts used and returned, incidental expenses, and the time required to complete the work. The PDF also includes the name and signature of the customer.

Related topics

[Create a signed PDF summary for a work order](#)

Activate Field Service Signature Pad

You can activate the Field Service - Signature Pad plugin (com.snc.wo_signature_pad) for Field Service Management if you have the admin role.

Before you begin

Field Service Management - Signature Pad requires you to install the Field Service Management plugin (com.snc.work_management). For more information, see [Activate Field Service Management](#).

Role required: admin.

About this task

The following items are installed with Field Service Management - Signature Pad:

- Tables
- Script Includes

For more information, see [Field Service - Signature Pad components](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service - Signature Pad plugin (com.snc.wo_signature_pad) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Result

The Field Service - Signature Pad plugin when activated successfully adds the Signature Capture and PDF Order Summary configurations in the Field Service Configuration page.

Note:

You must enable [Signature Capture and PDF Order Summary](#) to generate the signed PDF summary of a closed work order.

Configuring work order tasks

Work orders are composed of at least one, but usually multiple, work order tasks. The tasks in a work order can be assigned to one person, a group, or multiple Field Service technicians who operate autonomously. It's easier to complete a work order when the tasks needed to finish the work are divided into logical parts that can be accomplished independently.

Configuration overview

Optionally, set up one or more work order task configurations.

- [Create work types for a work order task](#)

Create different work types for a task to determine and configure the various requirements of the task, such as if the task needs a crew and preference of an assignment group.

- [Work order task states](#)

Work order tasks states are sequential and progress from one state to the next. Depending on your configuration, work order tasks may follow this sequence, a unique sequence, or automatically move from state to state when defined requirements are met.

- [Configure the Scheduled state](#)

Allows for the work order task to be soft booked but not confirmed. In this state, the work order task is pending assignment from the dispatcher.

- [Configuring survey-based work order questionnaires](#)

Use the work order questionnaire feature enables admins to create questionnaire records and associate those records with work order tasks. The administrator can also make filling out the questionnaire required before an agent closes a task.

- [Configuring Time Recording for Field Service](#)

Use the time recording feature enables agents to record time worked on tasks from the Work Order Task form and time spent on other activities, such as meetings or training, from the Time Worked form.

Create work types for a work order task

You have the option to categorize the type of work to be performed in Field Service to complete the task.

Before you begin

Role required: wm_admin

About this task

Create different work types for a task to determine and configure the various requirements of the task, such as if the task needs a crew and preference of an assignment group.

Procedure

1. Navigate to **All > Field Service > Administration > Work Types**.
2. Select New.
3. On the form, fill in the fields.

Work Type form

Field	Description
Name	Name of the type of work.
Value	Name of the work type to be stored Internally.
Description	Description of the work type.
Scheduling preference	Type of assignment group to which the task should be assigned to, such as internal and external group.
Active	Option to indicate whether the work type is available for selection when creating a work order task.

Field	Description
Needs crew	Option to indicate if the crew is required for the selected type of work.
Resource requirements	<p>Option to indicate if resource, such as agent or equipment, is required for the selected type of work.</p> <p>Note: The field appears only when Field Service Resource Scheduling plugin (com.snc.fsm_resource_scheduling) is active.</p>

4. Select and hold (or right-click) the form header and select **Save**.

Result

The work type is created successfully.

- If you have selected the Needs crew option, the work type is created with the Crew Requirements related list record.
- If you have selected the Resource requirements option, the work type is created with the Resource Requirements related list record.

For more information about adding the resource requirement, see [Add resource requirements for a work order task](#).

Work order task states

Work orders are made up of at least one work order task. Work order tasks states are sequential and progress from one state to the next.

Depending on your configuration, work order tasks may follow this sequence, a unique sequence, or automatically move from state to state when defined requirements are met.

Field Service Management work order task states

Draft	The qualifier isn't done describing the work and the dispatch group is empty on the work order task.
Pending dispatch	The qualifier adds the dispatch group and selects Qualified on the work order task.
Scheduled	<p>The work order task is soft booked but not confirmed. The work order task is pending assignment from the dispatcher.</p> <p>Note: This state only shows if use scheduled state is enabled. For more information, see Configure the Scheduled state.</p>
Assigned	The dispatcher confirms assignment of the work order task. The task is pending

Field Service Management work order task states (continued)

	acceptance from the assigned Field Service agent.
Accepted	The Field Service agent accepts the task and they're ready to work on it. Note: If the Field Service agent selects Start travel on the work order task, then the task enters the On route substate.
Work in Progress	The Field Service agent starts work and selects Start work on the work order task.
Closed Complete	The work order task was completed to specification. Note: The substate of Closed Complete is Complete.
Closed Incomplete	The task couldn't be completed as specified. Note: The substate of Closed Incomplete is Complete.
Cancelled	The task was canceled.

Configure the Scheduled state

Administrators can optionally enable the Scheduled state flow for work orders and work order tasks. By configuring these settings, you can control when and how tasks are dispatched to technicians.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **Field Service > Administration > Configuration**.
2. Select the **Assignment** tab.
3. Select **Use scheduled state**.

Note:
When **Dispatch queue** is turned off, **Use scheduled state** is automatically turned off.
When **Dispatch queue** is enabled, **Use scheduled state** is NOT automatically enabled.

4. Select **Save**.
5. Navigate to **Field Service > Administration > Properties**.
6. Select a **Mode setting to activate the scheduled state**.

- **Duration**

This mode updates the state of tasks from **Scheduled** to **Assigned** when the start threshold (in hours) is reached.

- **Number of tasks**

This mode controls the **Number of tasks** that are in the **Scheduled** state before they're assigned.

7. Modify the corresponding property to define when a work order task should be dispatched (moved from Scheduled to Assigned).

- For **Duration** mode:

- Scroll down to **Update task state from Scheduled to Assigned when the scheduled start is within specified hours from current time.**
- Default value: 12 hours
- Example: If you set the **Duration** mode to 12 hours, any tasks scheduled to start within the next 12 hours are assigned. Tasks scheduled to start after this period remain in the **Scheduled** state.

- For **Number of tasks** mode:

- Scroll down to **Count of tasks that are in assigned state before they are scheduled.**
- Default value: 1
- Example: If you set the **Number of tasks** mode to 1, only one task will be assigned to a technician at a time, while all remaining tasks will stay in the **Scheduled** state.

i Note:

The Scheduled State Processor will move tasks to the **Assigned** state whenever the number of **Assigned** tasks is less than the property value. By default, only tasks that are already scheduled can be assigned.

8. Select **Save**.

9. If you selected, **Number of tasks** mode, navigate to **All > System Definition > Scheduled Jobs**.

10. In the **Name** search, type 'Assign number of tasks by number of tasks' and press enter.

11. Click **Assign scheduled tasks by number of tasks** to open the record.

12. Select the **Active** option to enable

13. Enter the desired interval in the **Repeat interval** field.

By default, the repeat interval is set to 5 minutes.

14. Select **Update**.

Result

- On a work order form, the following occurs:
 - A new state Scheduled appears between Ready For Dispatch and Assigned if qualification isn't enabled.
 - A new state Scheduled appears between Qualified and Assigned if qualification is enabled.
- On a work order task form, a new state Scheduled appears between Pending Dispatch and Assigned.

Note:

If you turn the **Use scheduled state** property off, a warning appears indicating that tasks have moved from Scheduled to Assigned. Consequently, all work order tasks that are in the Scheduled state are moved to the Assigned state.

Configuring work order questionnaires

As part of completing some work orders and tasks, Field Service agents fill out questionnaires or complete check lists.

Questionnaires gather different types of information from Field Service agents, such as verifying their compliance with the generic Field Service process while working on the task.

Administrators can create questionnaire records and associate those records with work orders or work order tasks. For example, an agent might need to complete a safety check list before starting work on a task or fill out an inspection questionnaire before completing a work order. The administrator can also make filling out the questionnaire mandatory before an agent closes a task.

Questionnaire records include some configuration information, such as the condition or event that triggers the questionnaire, as well as the list of questions included in the questionnaire.

Note:

Configuring questionnaires is optional.

Questionnaire for a work order or work order task can be either a survey-based questionnaire or a smart assessment.

Survey-based questionnaire

A survey-based questionnaire uses the **Survey Designer** tool to create a questionnaire with a list of questions.

For more information, see [Configuring survey-based work order questionnaires](#).

Smart Assessment questionnaire

A Smart Assessment questionnaire for Now Mobile uses **Template designer** in the Smart Assessment Engine application.

For more information, see [Configuring Smart Assessment questionnaires for Now Mobile Agent](#).

Note:

- Smart Assessment allows migration of survey-based questionnaires to Smart Assessment questionnaires.
- Usage of Smart Assessment questionnaire can't be disabled once enabled.

Configuring survey-based work order questionnaires

Admin can create survey-based questionnaires and associate them with work order tasks.

The Survey Designer tool is used to create the questionnaires.

When a work order or task has an associated questionnaire, the **Questionnaires** button appears at the top of the form. Selecting this button displays the Questionnaires page, where the agent can complete the questionnaire or check-list.

Note:

The Survey Designer tool for Field Service Management doesn't support the functionality of retaking a questionnaire.

Demo questionnaire

The Inspection Questionnaire is a demo questionnaire record that is included with the Field Service - Questionnaire plugin. Whenever a work order task changes to the Work in Progress state, this questionnaire record adds a questionnaire to that task.

The following is a screen shot of the demo questionnaire form. In the Trigger condition section, there's a condition that the state must have changed to Work in Progress.

Questionnaire form

Questionnaire Inspection Questionnaire

Name: Inspection Questionnaire (Active)

Description: [Empty]

Introduction: Complete the inspection questionnaire

End note: Questionnaire complete!

Table: Work Order Task

Trigger condition: All of these conditions must be met

- State changes to Work In Progress
- Parent.Company is Wonka Inc
- Parent.Company is Cyberdyne Inc

Mandatory:

Buttons: Update, Questionnaire Designer, Delete

When defining trigger conditions, the operator **changes to** means that the state was changed to Work in progress. If you instead use the operation **is**, then the questionnaire is triggered every time that an update is made to the task.

This demo questionnaire works as follows:

1. The dispatcher assigns a work order task to an agent.
2. The agent accepts the task and selects **Start Work** on the task form.
3. The task state changes to Work in Progress.
4. The **Questionnaires** button appears in the task form header.
5. The agent selects **Questionnaires** to display one or more available questionnaires for the task.
6. The agent selects **Start** on the desired questionnaire.

7. The agent completes the questionnaire and selects **Submit** or **Save**.
8. The agent returns to the work order task, completes the work, and closes the task.

Note:

Questionnaires aren't editable after the associated work order or task is closed.

Configuration overview

The steps for setting up work order questionnaires are:

1. Activate Field Service Questionnaire

Install the Field Service- Questionnaire plugin (com.snc.wm_questionnaire) if you have the admin role.

2. Create a questionnaire for a work order or task

Create a questionnaire to be completed before work starts or after a work is done.

Related topics

[Activate Field Service Questionnaire](#)

[Create a questionnaire for a work order or task](#)

Activate Field Service Questionnaire

You can activate the Field Service - Questionnaire plugin (com.snc.wm_questionnaire) for Field Service if you have the admin role. The application includes demo data and installs related applications and plugins if they are not already installed.

Before you begin

Role required: Admin

- Ensure that the following plugins are activated before you install Field Service com.snc.wm_questionnaire.

Required ServiceNow plugins

Customer Service (com.sn_customerservice)

Customer Service Management Demo Data (com.snc.customerservice.demo)

Field Service Management

Role required: admin.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Questionnaire plugin (com.snc.wm_questionnaire) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Result

The Field Service Questionnaire plugin when activated successfully adds the Questionnaire module to the Field Service menu (**Field Service > Administration > Questionnaire**).

What to do next

Configure the form layout and add the **Assigned to** field to ensure that a questionnaire does not get created without an assigned agent.

Related topics

[Create a questionnaire for a work order or task](#)

Create a questionnaire for a work order or task

Create a questionnaire record and then associate it with Work Order Task table.

Before you begin

Role required: admin

About this task

The administrator can view questionnaire records from the Questionnaire list and questionnaires by navigating to **Surveys > View Surveys**.

Procedure

1. Navigate to **Field Service > Administration > Questionnaire**.
2. Select **New**.
3. On the form, fill in the fields.

Questionnaire form

Field	Description
Name	Name of the questionnaire.
Active	Option to make the questionnaire record active. The administrator can attach active questionnaires to work orders and work order tasks.
Description	Brief description of the questionnaire record.
Introduction	Text that appears at the beginning of the questionnaire.
End note	Text that appears at the end of the questionnaire.
Table	Table that is associated with this questionnaire record.
Trigger condition	Trigger condition that determines when the questionnaire is applicable. Use the condition builder to create trigger conditions. When these conditions are true for a work order or work order task, the questionnaire is added to the work order.

Field	Description
Mandatory	Option to make the questionnaire mandatory. When enabled, the agent must complete the questionnaire before closing the work order or work order task.
Close before	State that the work order or work order task must be in before the agents can complete a mandatory questionnaire.

4. Select **Submit.**

The system creates the record, displays the Questionnaire form, and adds the **Questionnaire Designer** button.

5. To create the text of the questionnaire, select **Questionnaire Designer.**

The Survey Designer tool opens in a new window.

6. To create the questions or checklist items that appear on the questionnaire, use the [Survey designer](#) tool.

7. Select **Save and close the Survey Designer window.**

Result

The questionnaire is created.

What to do next

To view questionnaire records from the Questionnaire list and questionnaires, go to **Surveys > View Surveys**.

To edit a questionnaire, open the form, make your changes, and select **Update**.

Related topics

[Complete a questionnaire for a work order or task](#)

Configuring Time Recording for Field Service

Agents record time worked on tasks and activities. Time recorded entries automatically generate time cards and time sheets for approval by managers. Configuring time recording is optional, but will save Field Service agents from having to record their time manually.

The time recording feature extends the functionality of the Time card management application to Field Service Management. Agents can record time worked on tasks from the Work Order Task form and time spent on other activities, such as meetings or training, from the Time Worked form. Time worked entries automatically create time cards for each selected work category. Time cards are automatically included in a weekly time sheet.

The time recording feature also extends the functionality of the [Cost Management](#) application to Field Service Management. Managers can view and create rate types and labor rate cards and also view expense lines. Time sheets use [labor rate cards](#) to determine costs.

Agents can modify the hours recorded on time cards. Once a time sheet is approved and a time card is processed, the agent can still go back and modify the time worked. The time sheet reverts to the **Pending** state and new time cards are created. If an agent adds more time worked records to an approved time sheet for the same week, a new time sheet record is created for the current week.

Managers can view time worked records, time cards, and time sheets for agents in their assignment groups, as well as approve and reject time sheets. After a time sheet is approved, the system processes the time cards and uses rate cards based on the time card category to create expense lines.

Time Sheet policy

For users with the `wm_agent` role, creating time worked records automatically creates or modifies time cards regardless of the setting for the `com.snc.time_card.time_worked` system property. The Time Sheet policy controls this functionality. The administrator can disable the auto creation of time cards for a specific user with the `wm_agent` role by creating a separate Time Sheet policy for that user.

Field Service view

The Time Card form and the Time Sheet form have a Field Service view. For users with the `wm_agent` and `wm_manger` roles, this view:

- Removes the **Generate Time Cards** UI action.
- Displays the **Time Worked** related list on the Time Card form.

Configuration overview

The steps for setting up Time Recording for Field Service are:

1. Activate Time Recording for Field Service

Install the Time Recording for Field Service plugin (`com.snc.wm_time_recording`) for if you have the admin role.

2. Configure time recording categories for Field Service Management

Create time recording categories to accurately track the work that Field Service technicians do. For example, you may want to create a category called Training if there are regular trainings technicians complete.

Activate Time Recording for Field Service

You can activate the Time Recording for Field Service plugin (`com.snc.wm_time_recording`) for Field Service if you have the admin role.

Before you begin

- Time Recording for Field Service requires the following plugins. Ensure that these plugins are activated before you install Time Recording for Field Service.

Required ServiceNow plugins

Field Service Management (`com.snc.work_management`)

Enables you to manage work requests that are performed on location by field service agents. For information, see [Activate Field Service Management](#).

Role required: admin.

About this task

The following items are installed with Time Recording for Field Service plugin:

- Plugins
- Roles

For more information, see [Time Recording for Field Service components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Time Recording for Field Service plugin (com.snc.wm_time_recording) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Configure time recording categories for Field Service Management

You can configure time recording categories to align with the work your Field Service agents do.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Time sheets > Time cards > All**.
2. Select **New**.
3. Select and hold (or right-click) on the word **Category** and select **Configure Choices**.
4. Choose one of the following:
 - To add a new category: Type the new category name in the **Enter new item:** field and select **Add** in the lower part of the screen.
 - To add an existing category: Select the category from the **Available** column and select **Add**.
 - To remove an existing category: Select the category from the **Selected** column and select **Remove**.
 - To change the order of the categories: Select the category in the **Selected** column and select **Move up** or **Move down**.
5. Select **Save**.

Configuring Field Service Work Configurations

Field Service Work Configurations allows you to create work configurations for different types of work. A work configuration identifies the configurations and the data required for specific field service work.

Configuration overview

The steps for setting up Field Service work configurations are:

1. Activate Field Service Work Configurations

Activate the Field Service Work Configurations plugin (com.snc.fsm_work_types) for Field Service Management if you have the admin role.

2. Set up work configurations

Use Field Service work configurations to customize the data that is captured when work is done on different types of work order tasks.

3. (Optional) Manage work configurations

Change Field Service Work Configurations that you create after you make them. This can be helpful if a process has changed or you need to add a new field.

4. (Optional) Setting up a work order template with work configurations

Set up Field Service work configurations can be set up to work with work order templates.

5. (Optional) Setting up dynamic scheduling configuration with work configurations

Set up Field Service work configurations can be set up to work with dynamic scheduling.

Activate Field Service Work Configurations

You can activate the Field Service Work Configurations plugin (com.snc.fsm_work_types) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Role required: admin


Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Work Configurations plugin (com.snc.fsm_work_types) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.
3. Select **Install** to start the installation process.

i Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.`

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Set up work configurations

Use the Field Service Management application to handle different types of field service work. A work configuration identifies the configurations and the data required for specific field service work.

Before you begin

Role required: admin

About this task

You can create a table to extend the work order task table for each work configuration. You can then configure a number of items, such as business rules and client scripts, that drive work order tasks of the work configuration from creation to resolution. When creating a work order, initiators or qualifiers can select the work configuration that corresponds to the field work either directly or through a template.

Procedure

1. On the Getting Started page of the guided setup, click **Get Started**.
2. In the Work order task types category, view the list of tasks to configure the feature.

Work configuration tasks

Task	Description
Create Work Order Task Types	<p>You can optionally create a new Work Order Task Type table that extends the Work Order Task (wm_task) table.</p> <p>Note: Make sure the Work Order Task table is extensible before proceeding. Enable the Audit flag for the new Work Order Task Type table created to capture audit history.</p> <p>You can create a table for the Work Order Task Type using the Platform table creation feature (navigate to System Definition > Table).</p> <p>Note: Ensure that Application access is set to 'All applications scopes' to allow all field service features to access the new table.</p>
Set Up View Rules	View rules determine the form views that are available to users. Create view rules that determine the conditions for when the system displays the Work Order Task Type table in a specified view.
Set Up UI Policies	UI policies dynamically change the behavior of information on a form, such as setting a field to read-only or making a field mandatory. Configure the desired UI policies for the Work Order Task form.
Set Up Client Scripts	Client scripts allow the system to run JavaScript on the client when client-based events occur, such as when a form loads or when a field changes value. Configure the

Task	Description
	desired client scripts for the Work Order Task Type table.
Set Up Business Rules	A business rule is a server-side script that runs when a record is displayed, inserted, updated, or deleted, or when a table is queried. Use business rules to accomplish tasks like automatically changing values in form fields when certain conditions are met, or to create events for email notifications and script actions. Set up the desired business rules for the Work Order Task Type table.
Set Up UI Actions	UI actions include the buttons, links, and context menu items that appear on forms and lists. Because a Work Order Task Type is an extension of Work Order Task, the Work Order Task Type inherits the Work Order UI actions.
Set Up Roles	Create one or more roles to control access to the Work Order Task Type features and capabilities. Then grant these roles access to the desired applications and modules.
Set Up ACLs	Use Access Control List rules (ACLs) to restrict access to data.
Set Up Work Categories	Create a category for different work types that would share similar field service configuration.
Set Up Work Types	Create a work type for same repeated tasks your business performs. For example, a heater installation company can create work types names Install Heater, Repair Heater, and Replace Heater.
Set up Field Service Management Configuration (SM Config)	Optionally, create a new Field Service Management Configuration (SM Config) if needed for a work configuration. Configure several different settings to determine how daily operations, including business processes, task assignment methods, notifications, and other task activities are handled in the work configuration.
Set Up Work Configuration	<p>Enables the customer to setup different work configurations for field service workflows as needed by a business unit or department.</p> <p>Each Work configuration enables the business or department to setup the required data fields by mapping to the Work Order Task type table. Also Work configuration can be setup with the correct Service</p>

Task	Description
	<p>Management Application Configuration (SM Config).</p> <p>Optionally, the work configuration would be mapped to the correct work category so that the only the work types relevant to a given work configuration are available to selection on work order task.</p>

3. To perform a task, click **Configure**.

This button opens the page in your instance where the configuration is completed.

Manage work configurations

Manage work configurations to ensure the configurations refer to the appropriate task tables and appear in the selected Service Management (SM) configurations.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Administration > Work Configurations**
2. Select a work configuration to manage.
3. On the form, fill in the fields.

Work Configuration form

Field	Description
Name	Name of the work configuration.
Task table	Name of the task table.
SM Configuration	Name of the SM configuration.
Description	Description of the work configuration.
Active	Option to indicate whether the work configuration is available for selection.
Config Type	Configuration type for the work configuration.
Work Type Category	Work type category for the selected work configuration

4. Select **Update**.

Setting up a work order template with work configurations

The Field Service Work Configurations plugin (com.snc.fsm_work_types) allows you to add work configurations to work order templates. When you create a work order using the template, the work order tasks will be recorded in the task table specified in the work configuration.

For more information on how to set up work configurations, see [Set up work configurations](#).

For more information on how to create a work order template, see [Create a work order template](#).

Setting up dynamic scheduling configuration with work configurations

The Field Service Work Configurations plugin (com.snc.fsm_work_types) allows you to set different dynamic scheduling configurations for different work configurations. Work order tasks that are dynamically scheduled will be recorded in the task table specified in the work configuration.

For more information on how to set up work configurations, see [Set up work configurations](#).

For more information, see [Configure dynamic scheduling](#)

Configuring Planned Work Management

Configure Planned Work Management to create and manage the planned work activities with recurring schedules at regular intervals.

Configuration overview

The steps for setting up planned work management are:

1. Install Planned Work Management

Install the Planned Work Management application (com.snc.fsm_planned_work_management) if you have the admin role.

2. (Optional) Use extension point for planned work management

Use extension points to build on the Field Service Management functionality without changing the application code.

3. Configuring work plans

Create a work plan for a product model, or other criteria, such as location or asset. For example, you can set up the work schedule to specify that service is performed every six months for the first two years from the date of purchase, or after completing 10,000 miles, whichever comes first.

Related topics

[Create a work order for the planned work](#)


[Work plan example](#)

[Planned Work Management Home page](#)

Install Planned Work Management

You can install the Planned Work Management application (com.snc.fsm_planned_work_management) if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin


- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#) .
- Review the application listing in the ServiceNow Store for information on dependencies, licensing or subscription requirements, and release compatibility.
- Activation of Planned Work Management activates the following plugins if not already active.

Required ServiceNow plugins

Template Management for Field Service (com.snc.fsm_template_management)

Enables you to configure and manage the work order templates to dynamically create work orders. For more information, see [Activate Template Management for Field Service](#).

Planned Maintenance (com.snc.planned_maintenance)

Enables you to manage the regular preventive maintenance of assets. For more information, see [Activate Planned Maintenance](#) .

Field Service Management (com.snc.work_management)

Enables you to manage work requests that are performed on location by field service agents. For more information, see [Activate Field Service Management](#).

CSM and FSM Configurable Workspace Foundation (com.snc.uib.cwf_workspace)

Enables you to access and manage Planned Work Management home page and Planning calendar.

Role required: admin

About this task

The following items are installed with Planned Work Management :

- Plugins
- Roles
- Scheduled jobs
- Tables

For more information, see [Planned Work Management Components](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Planned Work Management application (com.snc.fsm_planned_work_management) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

In the list next to the **Install** button, the versions that are available to you are displayed.

3. Select a version from the list and select **Install**.

In the Review Installation Details dialog box, any dependencies installed with your application are listed.

4. If you're prompted, follow the links to the ServiceNow Store to get any additional entitlements for dependencies.
5. **Optional:** If demo data is available and you want to install it, select the **Load demo data** check box.
Demo data are sample records that describe application features for common use cases. Load the demo data when you first install the application on a development or test instance.

6. Select **Install**.

Using extension point for planned work management

Extension points enable you to extend the functionality of an application and integrate customizations without altering the application code. Extension points are stored in the Extension Point [sys_extension_point] table.

The Planned Work Management plugin (com.snc.fsm_planned_work_management) adds the *global.PlannedMaintenanceExtensionPoint* extension point, which creates a logic to create work orders for the planned work schedule using the enhanced capabilities of Planned work management.

The default extension points that are provided with an application cannot be modified or deactivated. If modification is necessary, if you have the administrator role, you can do the following:

- Create an implementation of an extension point.
- Make any necessary changes in the implementation.
- Update the order of the implementation to a lower number. The system executes the implementation with the lowest order number.

Note:

API names used in the implementation must remain the same so the extension point can identify the implementation. Otherwise, an error results.

Related topics

[Using extension points to extend application functionality](#) 

Configuring work plans

Planned Work Management enables you to create, maintain, and schedule flexible work plans for any recurring activity that requires regular maintenance.

You can create a work plan for a product model, or other criteria, such as location, asset, CI, or so on, and specifies the work to be performed. The planned work schedule specifies the timing, by specifying how often and when to perform the work.

For example, You can configure a work plan to perform automobile service for a newly purchased car. The work schedule can specify to perform service every six months for two years from the date of purchase or after completing 10,000 miles, whichever comes first.

Configuration overview

The steps for setting up work plans are:

1. Do one of the following:

- [Create a work plan](#)

Use work plans to define how and when the work should be performed for any activity.

- [Migrate maintenance plans to Planned Work Management](#)

Migrate maintenance plans from Planned Maintenance to Planned Work Management.

2. [Configure a work schedule](#)

Use work schedules define specific criteria to determine when the plan should be executed. This includes defining the start date and end date for the plan's execution.

3. [Associate a work order template to a work schedule](#)

Map one or more conditions to a planned work schedule. For example, you can set up maintenance for two printers from different brands at the same time. To do this, you must create a schedule for these machines and then map it to different work order templates.

4. Create planned work records

Create work records for work that has been mapped to a work plan. Apply a work plan to the matching records and schedules to create planned work records.

5. (Optional) Suppress schedule occurrences of your planned work orders

Use schedule suppression to streamline tasks by removing duplicate tasks when schedules overlap. During the schedule suppression period, the system automatically cancels the identified duplicate scheduled tasks so they aren't executed as originally planned.

6. (Optional) Reschedule the planned work order

Avoid generating duplicate work orders for overlapping schedule occurrences by changing the start or end date, either advancing or delaying the maintenance work as needed.

Create a work plan

Create a work plan to specify how and when the work should be performed for any activity.

Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin and model_manager

About this task

A work plan consists of the effective start and end date that determines the period for which the plan can be scheduled for execution. The plan won't work beyond the specified end date. Each work plan must have at least one or more records associated with it for which you want to apply the work plan. You can identify the records that require work by applying the filtering criteria to the selected table in the plan. For example, you can filter the matching records (containing apple computers) for a work plan by applying a filtering criteria to the table containing the records of computer that starts with "apple."

Note:

The filtered assets or activities that require work are called matching records in the work plan.

You can also create a work plan through the Planned Work Management Workspace. Navigate to **All > Planned Work Management > Workspace**, and then select the **List** icon (☰).

Procedure

1. Navigate to **All > Planned Work Management > Plans**.
2. Select **New**.
3. On the form, fill in the fields.

Work Plan

Field	Description
Number	Unique number for the work plan. This field is automatically set.

Field	Description
Active	Option to determine if this work plan is available to use.
Effective start	Effective start date from when the work plan is active.
Effective end	Effective end date until when the work plan is active.
Forecast work orders	Option to specify if this work plan is applicable to estimate and generate the upcoming work orders.
Name	Name of the work plan.
Short description	A short description of the work plan.
Conditions	
Type	<p>Type of trigger that determines when work should be performed.</p> <ul style="list-style-type: none"> ○ Model based: Base the work plan on a specified model of a CI. ○ General: Base the work plan on a table and filter. ○ Install base: Base the work plan on specified models of install base items <p>Note:</p> <ul style="list-style-type: none"> ○ Model-based plans apply only to hardware models, specifically ones that have at least one model category defined. ○ Install base plan type is available only if the Customer Service Install Base Management (com.snc.install_base) plugin is activated.
Model	Select one or more Product catalog items to identify the CIs or Install base that requires maintenance. When you select a model, the associated table appears in the Table field. For example, if you select a specific model of PC, the Table field displays Computer [cmdb_ci_computer] . This field appears if you selected either Model based or Install base type. For Install base type, The Table field automatically populates an appropriate table based on the selected model.
Table	<p>Table you want to associate with the work plan.</p> <p>If you have selected Model Based in the Type field, this field displays the lowest level table that contains all the selected CIs. If you have</p>

Field	Description
	selected Install base in the Type field, this field displays the install base tables.
Filter conditions	Filter conditions to locate the specific assets that you want to work. Only records in the selected table that match the filtering criteria require work.
Category	Determine whether the work plan is applicable for either category original equipment scheduling (OEM) or alternative equipment scheduling (AEM).
Apply to new matching records	Option to ensure that the schedules defined for this work plan are applied to all records that have been added to the specified table since the last time the plan was executed, also meet the conditions specified in the Filter conditions.
Task creation policy	Specify what to do when a work plan runs based on a schedule occurrence that is already in progress. <ul style="list-style-type: none"> ○ Leave alone: Don't allow the creation of new tasks or the deletion of existing ones. ○ Cancel existing: Allow the deletion of existing tasks associated with the plan and the creation of new tasks to replace them. ○ Add to existing: Allow new tasks to replace the existing active tasks for the specific schedule occurrence of a plan.

Result

- The work plan is created successfully.
- Specific activities that require work are identified from the selected table based on the filtering conditions.

What to do next

After creating a work plan, configure a schedule to the work plan. For more information, see [Configure a work schedule](#)

Migrate maintenance plans to Planned Work Management

You can migrate plans from Planned Maintenance to Planned Work Management so that plans can utilize the features in Planned Work Management.

Before you begin

Role required: admin

Migration is applicable to duration-based maintenance plans, specifically monthly, annually, and weekly migrations.

Procedure

1. Navigate to **All > Planned Maintenance > Maintenance Plans**.
2. Select a maintenance plan.
3. Select **Migrate plan**.

Result

The maintenance plan will be deactivated and a new plan record will be created in Planned Work Management.

What to do next

To verify that the plan was migrated, navigate to **All > Planned Work Management > Plans**.

Configure a work schedule

After creating a work plan, it's important to define specific criteria to determine when the plan should be executed. This includes defining the start date and end date for the plan's execution. To create a flexible work schedule for the plan, you can configure multiple work schedules for it and assign them accordingly.

Before you begin

Role required: `sn_fsm_planned_wm.planned_work_admin` and `model_manager`

You must create a work plan before configuring a work schedule for the plan.

About this task

You can create a single schedule or multiple schedules. For example, you can set up schedules for a class of computer to be rebooted on the first and 15th of every month.

Note:

Plan carefully when defining multiple work schedules for the same plan. For example, you set up one schedule to replace a printer cartridge every three months. You set up another schedule to replace the cartridge after every 10,000 pages is printed. This conflict could cause the cartridge to be replaced twice in the same week. Ensure that your schedules don't conflict with one another.

Work schedules can be based on either duration or meter and can be triggered by the first occurring related condition. For example, on the Planned Work Schedule form, select **Duration or Meter** as the trigger for an automobile maintenance schedule and then define the duration as six months and the meter as 10,000 miles. The schedule is triggered by whichever comes first. With the **Duration or Meter** trigger selected, the **Next run time** and **Next run value** fields are populated in the **Planned Work Records** related list on the Work Plan form.

Note:

In a work plan record, the timestamp displayed in the **Next run time** field isn't the same as the time set for executing the planned work. The **Next action** field in the **Planned Maintenance Nightly Run** record displays the actual scheduled job execution time for the planned work.

When the scheduled job runs, it checks whether the value in the **Next run time** field is less than the time set for the next planned work nightly run job and if it is, the system generates a request. A planned nightly maintenance isn't executed and a request isn't generated based on the next run time.

A flexible work schedule can be created for multiple assets that belong to the same work plan based on their installation date. For example, on the Planned Work Schedule form, select **Field Value** as the start planned schedule based on, for multiple assets and then select **Installed** as the effective start reference. The schedule identifies the starting date of the planned work record

based on the installation date of the assets that are associated with the work plan. With the **Field Value** start planned schedule based on selected, the **Next run time** field is populated in the **Planned Work Records** related list on the Work Plan form.

You can also create planned work schedules through the Planned Work Management Workspace. Navigate to **All > Planned Work Management > Workspace**, and then select the **List** icon ()

Procedure

1. Navigate to **All > Planned Work Management > Work Plans**.
2. Open the work plan that you want to associate with a work schedule.
3. In the **Planned Work Schedules** related list, select **New**.
4. On the form, fill in the fields.

Planned Work Schedule

Field	Description
Name	Name of the planned work schedule.
Short description	Brief summary of the planned work schedule.
Trigger	<p>Timing condition that triggers the execution of the plan.</p> <ul style="list-style-type: none"> ○ Duration: work to be performed based on time. Depending on your selection, additional fields appear to define the duration. ○ Meter: work to be performed based on count. The Every and Field fields appear. ○ Condition: Maintenance to be performed when a certain condition is met. The Filter Condition field appears. ○ Script: Apply advanced criteria for running a maintenance plan. The Script field appears. ○ Duration or Meter: Maintenance to be performed based on both time and count, whichever comes first. You must specify the duration and meter details.
Plan	<p>Name of the work plan that this schedule is a part of.</p> <p>This field is automatically set to the name of the work plan.</p>
Active	Option to enable the schedule for a work plan.
Duration Details	
Trigger type	Duration category for the work schedule. For example, if you select Multiple days of the week , the Due days of week field appears

Field	Description
	<p>so you can specify on which days in a week planned work should be performed.</p> <p>Different fields appear depending on the trigger type selected. This field appears when Duration is selected for Trigger.</p>
Monthly type	<p>Select either Fixed or Floating to mention a particular day of the month to run the schedule.</p> <p>This field appears when the Trigger type field is set to Monthly.</p>
Annually type	<p>Select either Fixed or Floating to specify a particular day and month in a year to run the schedule.</p> <p>This field appears only when the Trigger type field is set to Annually.</p>
Repeat every	<p>Specify how often the schedule should repeats. For example, if you select weekly repetitions, specify the frequency such as every week or every two weeks.</p>
Repeat	<p>Frequency of the planned work schedule to repeat.</p> <p>This field appears when the Trigger type field is set to Interval.</p>
Due day of week	<p>Day of week to repeat on.</p> <p>This field appears when Weekly is selected for Trigger type.</p>
Due day of month	<p>Day of the month to repeat on.</p> <p>This field appears when Monthly or Annually is selected for Trigger type.</p>
Due month	<p>Month to repeat on.</p> <p>This field appears when Annually is selected for Trigger type.</p>
Due time	<p>Time of day in hours, minutes, and seconds.</p> <p>This field appears for all trigger types except Interval.</p>
Lead time	<p>Number of days prior to the Requested Due by date to determine the date on which work should begin. That date is pre-filled in the Scheduled start field for the task.</p>

Field	Description
	This field appears when Duration is selected for Trigger .
Preserve calculated interval	Option to restart the interval calculation from the time that the work order was completed. This field appears when Interval, Monthly, or Annually is selected for Trigger type and Fixed is selected for the Monthly type and Annually type field.
Condition	Condition that determines if the maintenance schedule should run. This field appears when Condition is selected for Trigger .
Script	Script that determines if the maintenance schedule should run. For example, Maintenance runs if the script returns true. The "current" variable is available and represents the record that is undergoing maintenance, for example, a CI. This field appears when Script is selected for Trigger .
Meter Details	
Table	Lists the table associated with the assets or CIs selected for maintenance. This field appears when Meter or Condition is selected for Trigger .
Field	Field used to define what the occurrences in the Every field apply to. For example, if the pages field is entered, the Every field can contain the number of pages that are printed before the action defined in the plan is performed. This field appears when Meter is selected for Trigger .
Every	Number of occurrences, such as miles or pages that must be recorded before the work plan is executed. The value must be greater than zero (0). This field appears when Meter is selected for Trigger .
Preserve calculated meter	Option to restart the meter calculation based on the value defined in the Every field.

Field	Description
Effectivity Details	
Start planned schedule based on	Option based on which the planned work schedule should determine its start date. <ul style="list-style-type: none"> ○ Date ○ Field Value ○ Schedule
Effective Start	Effective start date from when the planned work is scheduled to work.
Effective start reference	Field value that should be used to determine the start date of the planned work. Effective start reference displays the list of fields from the table that is selected to create conditions for the work plan. For example, Printer [cmdb_ci_printer] This field appears only when Field Value is selected from Start planned schedule based on .
Schedule	Name of the schedule that should be used to calculate the start date of the work plan. This field appears only when Schedule is selected from Start planned schedule based on .
End planned schedule based on	Value that determines the end date of a planned work schedule. <ul style="list-style-type: none"> ○ Date ○ Field Value ○ Frequency
Frequency	Determine how often the planned work is scheduled to be performed. For example, if frequency is mentioned as 4, the planned work cycle will run for four times and ends after the fourth iteration.

5. Select Submit.

Result

The schedule is created for a work plan. The Schedule Occurrences related list is added to the schedule to track the occurrence of maintenance cycles for the schedule.

The schedule occurrences are created automatically for duration-based schedules. However, if a different trigger option is selected for a schedule, the occurrence is created only when the specified condition or meter value is met. The creations of schedule occurrences depend on the effective end date. If no effective end date is specified, the application generates the next occurrence of the schedule.

Associate a work order template to a work schedule

Map a single or multiple work order templates to a planned work schedule. Add conditions to identify the relevant templates for the planned work records.

Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin and model_manager

About this task

For example, to fulfill the maintenance requirement of two MRI machines from different brands, at the same time. You must create a schedule for these machines and then map it to different work order templates. Add conditions so that the schedule can identify the appropriate template to generate work orders that are specific to each MRI machine.

Procedure

1. Navigate to **All > Field Service > Planned Work Management > Plans**.
2. Open a plan from the list of work plans.
3. In the Planned Work Schedules related list, select a schedule to which you want to associate a work order template.
4. In the Planned Work Schedule Templates related list, select **New**.
5. On the form, fill in the fields.

Planned Work Schedule Template form

Field	Description
Model	Work order template to be associated with the planned work schedule.
Schedule	Planned work schedule to which you're adding the template. This field is automatically set to the selected planned work schedule.
Table	Table that is associated with the corresponding work plan of this planned schedule. This field is automatically set to the table name selected for the work plan.
Condition	Filter conditions to determine the work order template to be used to create work orders based on the planned schedule.

6. Select **Submit**.

Result

Work orders created by the scheduled jobs running on the associated work schedule contain the selected template.

Create planned work records

Create a list of planned work records based on the number of configured work schedules, matching records, or the number of templates mapped to the schedule.

Before you begin

You must assign a schedule to the work plan. For more information, see [Configure a work schedule](#).

Role required: sn_fsm_planned_wm.planned_work_admin and model_manager

About this task

The planned work records are used by the *Planned Maintenance Nightly Run* schedule job to create work orders. For more information, see [Run a scheduled job to execute a planned work schedule](#).

Apply a work plan to the matching records and schedules to create planned work records. If multiple schedules are defined for a work plan, they all take effect on the matching records while creating planned work records. This same functionality exists for the work schedules that are used to apply the specific schedule to the matching records in the associated work plan.

You can also create planned work records through the Planned Work Management Workspace.

Navigate to **All > Planned Work Management > Workspace**, and then select the List icon ().

Procedure

1. Navigate to **All > Field Service > Planned Work Management > Plans**.
2. Create planned work records.

Result

The configured work schedule is applied to the matching records of that plan and generates a list of planned work records.

Suppress schedule occurrences of your planned work orders

Streamline and optimize maintenance activities by suppressing duplicate planned work tasks when different schedules overlap.

Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin

About this task

Use schedule suppression to streamline tasks by removing duplicate tasks when schedules overlap. During the schedule suppression period, the system automatically cancels the identified duplicate scheduled tasks so they aren't executed as originally planned.

For example, consider an MRI machine with scheduled maintenance plans for both monthly and quarterly. If monthly maintenance occurs on the 15th and quarterly maintenance on the 22nd of every third month, these schedules overlap every three months. Both schedules might include tasks, such as air vents cleaning. To avoid doing the same task twice, a suppression period (for example, seven days) is used to check for overlaps. If the monthly tasks are covered in the quarterly schedule, the system suppresses the monthly maintenance. This helps prevent duplication, saves resources, and maintains operational efficiency.

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Plans**.
2. Open your work plan.
3. In the Planned Work Schedules related list, select a schedule that you want to suppress with another schedule.

4. In the Schedule Suppressions related list, select **New**.
5. On the form, fill in the fields.

Schedule Suppressions form

Field	Description
Suppress Period	Time period during which overlapping schedule occurrences are identified, allowing the system to suppress duplicate work order tasks.
Active	Option to enable this suppression rule.
Suppress by	Name of the work schedule that you want to have priority over the current schedule.
Order	Order in which this suppression rule is evaluated.

6. Select **Submit**.

Result

The system changes the state of the schedule occurrence to suppressed and cancels the associated work order tasks.

Reschedule the planned work order

Reschedule planned work orders by advancing or delaying the occurrence date of the schedule.

Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin

About this task

Avoid generating duplicate work orders for overlapping schedule occurrences by changing the start or end date, either advancing or delaying the maintenance work as needed.

Note:

You can modify a schedule occurrence only if either no work orders are generated for it or the work orders generated for it are in the Draft state.

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Plans**.
2. Open your work plan.
3. In the Planned Work Schedules related list, select a schedule for which you want to review the schedule occurrences.
4. In the Schedule Occurrences related list, select a schedule occurrence that you want to modify.
5. Update the **Earliest start date** or **Requested due by** field to change the date and time of the existing schedule occurrence.
6. Select **Update**.

Configuring the auto-population of access hours in a work order task

Defining default access hours for a work order task based on customer preferences such as account, location, or asset, enables the auto-population of the access hours for the task.

An administrator can set up access hours preferred by the customers such as account, location, asset, or a combination. The system evaluates these levels based on their order to determine the appropriate default access hours for the task.

Access hour levels define different attributes of work order tasks as matching criteria. These attributes should match the task for which you're determining the access hours. Assigning an order to each level helps the system to evaluate the attributes of a task based on their priority. An ordering rule sorts the levels in descending order. You can then set preferences for these access hour levels by assigning a value to each attribute, and providing an access hour schedule, such as 8-5 weekdays, 24x7.

When a work order task is created, the system searches for any active access hour levels based on the assigned order and then identifies whether the attributes on the task match the access hour preferences. If the attributes match, the system auto-populates the corresponding access hour preferences. Note that administrators or dispatchers can also manually override the default access hours if the estimated time duration for the task falls outside the defined access hours.

The following example shows the access hour preferences for an account at two different locations and the information that the system might return.

Access hour level: Account Location, Matching criteria: Account and Location, Account preferences: Boxeo, Location preferences: San Francisco and Florida

The Boxeo account at the San Francisco location has 19:00 - 21:00 access hours, whereas the Boxeo account at the Florida location has 18:00 - 21:00 access hours.

Configuration overview

The steps for setting up the auto-population of access hours are:

1. Activate Field Service Management Access Hours Management

Activate the Field Service Management Access Hours Management plugin (com.snc.fsm_access_hours) for Field Service Management if you have the admin role.

2. Define access hour preferences for a work order task

Define the access hours to set the times that a location is available for an agent to go to and complete work.

Activate Field Service Management Access Hours Management

You can activate the Field Service Management Access Hours Management plugin (com.snc.fsm_access_hours) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

- Field Service Access Hours Management requires the following plugins. Ensure that these plugins are activated before you install Field Service Access Hours Management.

Required ServiceNow plugins

Field Service Management (com.snc.work_management)

Enables you to manage work requests that are performed on location by field service agents. For information, see [Activate Field Service Management](#).

Role required: admin.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Access Hours Management plugin (com.snc.fsm_access_hours) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Result

The Field Service Management Access Hours Management plugin when activated successfully adds the **Access Hours** option to the work order task form.

Define access hour preferences for a work order task

Set default access hours for a work order task based on the customer preference at various levels, such as account, location, asset, and so on.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Field Service > Access Hours Configuration > Access Hour Levels**.
2. Select **New**.
3. On the form, fill in the fields.

Access Hour Levels form

Field	Description
Access hour level	Name for the level.
Match Criteria	Criteria that must match to auto-populate the access hours. You can select multiple criteria.

Field	Description
Order	Order in which the access hour level should be evaluated to auto-populate the access hours. An ordering rule sorts the levels in descending order.
Active	Option to make this level configuration active.

4. Select **Submit.**

The access hour level is created.

5. From the Access Hour Configuration module, select **Access Hour Preferences.**

6. Select **New.**

7. On the form, fill in the fields.

Access Hour Preferences form

Field	Description
Access hour level	Name of the access hour level for which you're defining preferences. The matching criteria specified for the access hour level appear as fields in the access hour preference form. For example, if the selected access hour level is Account and its specified matching criteria are Consumer and Location, the Location and Consumer fields appear in the Access Hour Preferences form.
Type	The type of output data to display access hours, either Value and Script. Use Value to define static access hours or Script to define the access hours dynamically.
Active	Option to make this preference active.
Access Hour	The static value used by the work order task to determine access hours, such as 8-5 weekdays. This field appears only when Value is selected in the Type field.
Script	The script used by the work order task to determine access hours. Use a script to determine access hours dynamically by making use of work order task attributes such as priority, work type, and so on. In the script, identify the attribute using the structure <code>workOrderTask.<attributeName></code>

Field	Description
	<p>or <code>workOrder.<attributeName></code>. For example, you could determine the access hours of a task based on its priority. If the priority is 1, the script would return access hours 24x7 and if the priority is greater than 1, the script would return access hours 8-5 weekdays.</p> <p>This field appears only when Script is selected in the Type field.</p>

8. Select Submit.

Result

The access hours are set to auto-populate in the work order task based on the customer preference at various levels.

Activate linear assets support in Field Service Management

You can enable the Field Service Management application to support linear assets by activating the Enterprise Asset Management plugin (`com.sn_eam`) if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they aren't already installed.

Before you begin

Linear asset support for Field Service Management requires activation of the following plugins before you install Enterprise Asset Management.

Field Service Management (`com.snc.work_management`)

Enables you to manage work requests that are performed on location by field service agents. For more information, see [Activate Field Service Management](#).

Field Service with Service Locations (`com.snc.fsm_service_locations`)

Enables you to view and select the linear assets on map.

CSM and FSM Configurable Workspace Foundation (`com.snc.uib.cwf_workspace`)

Enables you to create and manage work orders and work order tasks for linear assets.

Dispatcher Workspace (`com.snc.uib.fsm_dispatcher_workspace`)

Enables you to access and manage work orders and work order tasks for linear assets.

Field Service Mobile (`com.sn_fsm_mobile`)

Enables you to access the Agent mobile application to manage your work.

Field Service Management Configurable Workspace (`com.snc.uib.fsm_agent_workspace`)

Provides the components, lists, and forms to support Field Service Management on CSM Configurable Workspace.

Role required: admin

About this task

The following items are installed with Enterprise Asset Management:

- Properties
- Business rules

For more information, see [Linear Assets Support properties](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Enterprise Asset Management plugin (com.sn_eam) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

i Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Related topics

[Assign work orders for linear assets in Field Service Management](#)

Configuring Playbooks for Field Service Management

Playbooks provide step-by-step guidance for your field service teams to complete tasks. Use the playbooks feature to create processes to manage the life cycle of field service tasks.

A playbook breaks a workflow into multiple stages. Each stage includes the following:

- A list of activities or steps that the agent must perform.
- Status indicators that display the current state of each activity or step.
- Check boxes and counters that indicate where an agent is in the workflow.

Playbooks are created using the [Process Automation Designer](#)  platform feature.

Playbooks for the Now Mobile Agent

Playbooks for the Now Mobile Agent application include stages for completing a work order task. Playbooks can be viewed under a selected work order task on the **My work** page. Tasks that have an active playbook associated with it display a **View Playbooks** button.

Playbooks are organized in stages to provide a guided experience. They direct you to new or existing features of the mobile application and maintain a checklist of completed stages on that work order task. Stages can be marked complete or skipped at your discretion. The stages progress as follows:

1. Troubleshoot
2. Parts
3. Record time

4. Log incidentals
5. Verify work completion
6. Close work order task

For more information, see [Playbooks on Mobile Agent](#).

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Configuration Overview

The steps for setting up Playbooks for Field Service Management are:

1. Install Playbooks for Field Service Management

Install the Playbooks for Field Service Management application (sn_fsm_playbook) if you have the admin role.

2. Activate Playbooks for Field Service Management

Activate Workflow Studio Playbooks on your instance so that you can create Playbooks triggered by tables.

Install Playbooks for Field Service Management

Install the Playbooks for Field Service Management application (sn_fsm_playbook) if you have the admin role.

Before you begin

Role required: admin

- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- Playbooks for Field Service Management requires the following plugins. Ensure that these plugins are activated before you install Playbooks for Field Service Management.

Required ServiceNow plugins

Playbook Experience Core (com.glide.playbook_experience.config)

Enables you to customize the default Playbook user experience to create your desired business process workflow.

Field Service Management

Enables you to manage work requests that are performed on location by field service agents.

For information, see [Activate Field Service Management](#).

Process Automation Designer Core (com.glide.pad.core)

Enables you to create a simplified and task-oriented view of your process.

For more information, see [Process Automation Designer](#) platform feature.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Playbooks for Field Service Management application (com.sn_fsm_playbook) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

3. In the Application installation dialog box, review the application dependencies.

Dependent plugins and applications are listed if they will be installed, are currently installed, or need to be installed. If any plugins or applications need to be installed, you must install them before you can install Playbooks for Field Service Management.

4. **Optional:** If demo data is available and you want to install it, select the **Load demo data** check box.
Demo data are sample records that describe application features for common use cases. Load the demo data when you first install the application on a development or test instance.

5. Select **Install**.

Activate Playbooks for Field Service Management

Activate Workflow Studio Playbooks on your instance so that you can create Playbooks triggered by tables.

Before you begin

Role required: Admin.

About this task

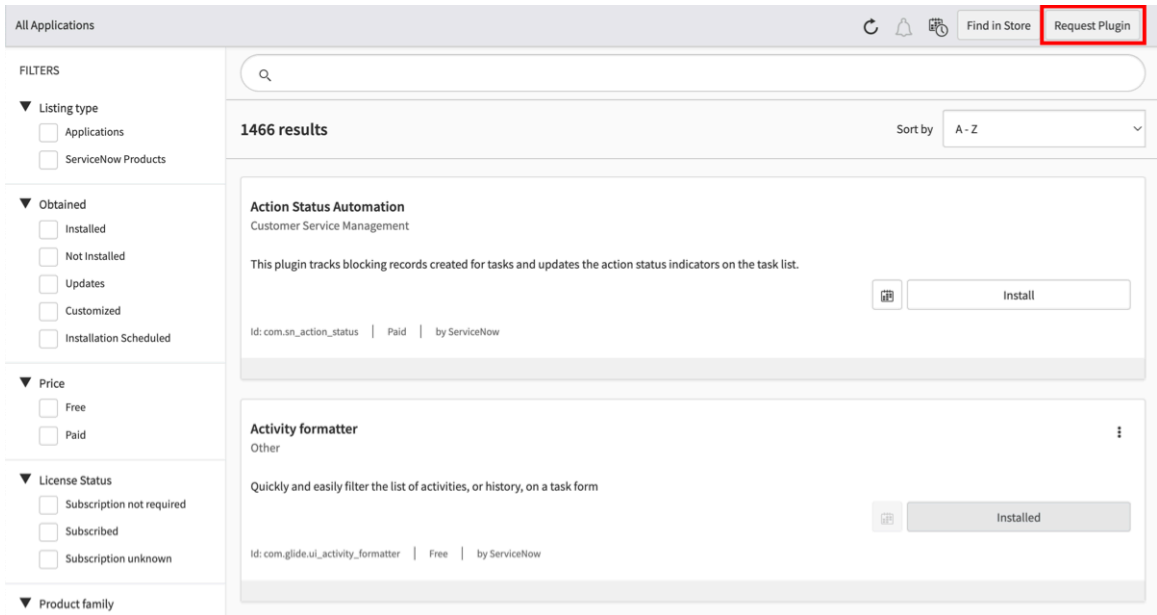
In order to create Playbooks in Workflow Studio that are triggered by Field Service Management tables, you must [purchase a subscription to Field Service Management](#).

To purchase this subscription, contact your ServiceNow account manager. Your account manager can arrange to have the plugin activated on your organization's production and subproduction instances, generally within a few days.

If you don't have an account manager, decide to delay activation after purchase, or want to evaluate the product on a subproduction instance without charge, follow these steps to enable the **Playbooks for Field Service Management [com.sn_fsm_playbook]** plugin:

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Select **Request plugin** to open the **Activate Plugin** form on Now Support.



3. On the **Activate Plugin** form, provide the following information.

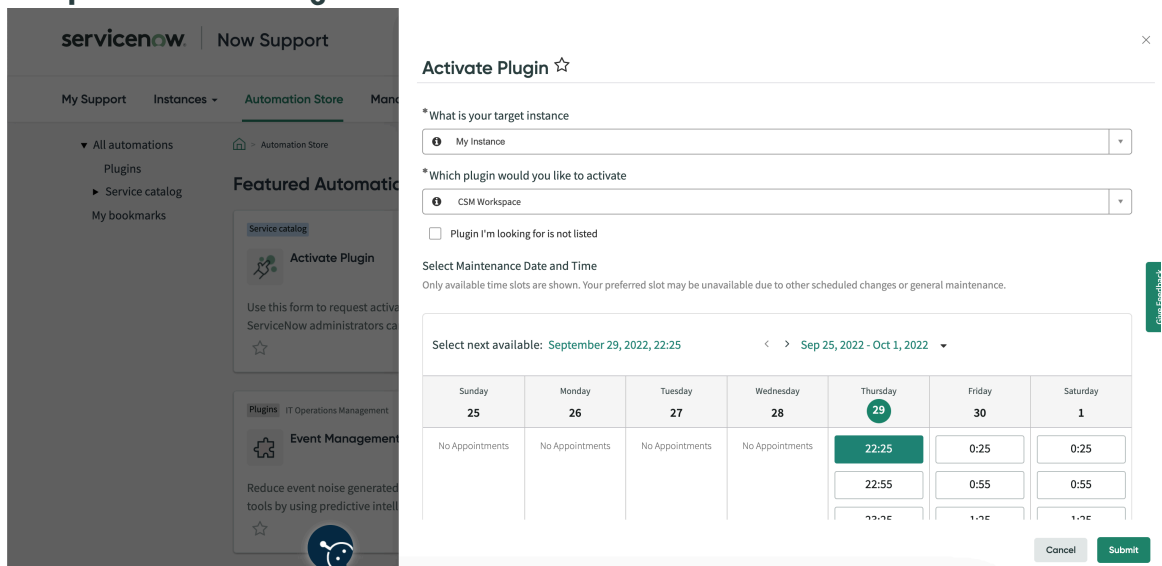
Activate Plugin form

Field	Description
What is your target instance	Select the instance that you want to activate the plugin on.
Which plugin would you like to activate	Select the name of the plugin to activate. Note: If the system doesn't list the plugin you want or if you're activating the plugin on an OEM or on-premise instance, select the Plugin I'm looking for is not listed check box and then enter the name of the plugin.
Select Maintenance Date and Time	Select the date and time to activate the plugin.

Example

For example, see the following form to activate the Event Management plugin on an instance named SNC Instance.

Completed Activate Plugin form



4. Select **Submit**.

After the maintenance window, the system installs the plugin on your instance. To confirm the installation, go to the Installed tab in the Application Manager.

Result

Enabling the **Playbooks for Field Service Management [com.sn_fsm_playbook]** plugin lets you create Playbooks for these tables and their [extensions](#) :

- Work Task Flow [sf_work_task]
- Work Order Flow [sf_work_order]
- Work Order Task [wm_Task]
- Work Order [wm_order]
- Work Order Model [cmdb_workorder_product_model]
- Work Task Model [cmdb_worktask_product_model]
- Work Type [wm_work_type]
- Agent Personal Schedule [agent_events]
- Appointment Booking [sn_apptmnt_booking_appointment_booking]
- Questionnaire [wm_questionnaire]
- Service Order Task [sm_task]
- Service Order Task Template Dependency [sm_m2m_task_template_dependency]
- Asset Usage [sm_asset_usage]
- Part Requirement [sm_part_requirement]
- Service Management Incidentals [sm_incidentals]

Configuring Field Service Management Customer Experience

Configure the Field Service Management Customer Experience application to enable sending notifications to your customers through email and SMS.

Configuration Overview

The steps for setting up Field Service Management Customer Experience are:

1. Activate Field Service Management Customer Experience

Activate the Field Service Management Customer Experience plugin (com.snc.fsm_customer_experience) to use the Customer Experience feature with Field Service Management.

2. Customer notifications for work order tasks

Set up notification messages and emails to update customers about the status of their work order tasks.

Activate Field Service Management Customer Experience

Activate the Field Service Management Customer Experience plugin (com.snc.fsm_customer_experience) to use the Customer Experience feature with Field Service Management.

Before you begin

Role required: wm_admin

About this task

The Field Service Management - Customer Experience plugin (com.snc.fsm_customer_experience) includes demo data and activates these related plugins if they are not already active.

Plugins for Field Service Management Customer Experience

Plugin	Description
Customer Service with Field Service Management. [com.snc.csm_fsm_integration].	Provides an integration between the Customer Service Management and Field Service Management applications.
Notify - Twilio Direct Driver [com.snc.notify.twilio_direct].	Provides APIs and workflow activities for applications to handle various notification features, such as SMS.

Field Service Management Customer Experience requires the following plugins. Ensure that these plugins are activated before you install Field Service Management Customer Experience.

Notify

Provides support for enabling and configuring customer SMS and email notifications For more information about activating Notify, see [Notify](#).

The following items are installed with Field Service Management Customer Experience:

- Tables
- Properties
- Business rules

For more information, see [Customer Experience components](#).


Procedure

1. Navigate to **All > Application > System Definition > Plugins.**
2. Search for the plugin `com.snc.fsm_customer_experience`.
3. Click **Activate**.

Customer notifications for work order tasks

Set up notification messages and emails to update customers about the status of their work order tasks.

Customers can receive notifications about the work order tasks created for them. Customers can unsubscribe to stop receiving any notifications.

Customer notifications for work order tasks use the Field Service Management - Customer Experience plugin to send both SMS and email notifications on the registered mobile number and email address. Users with the system administrator role can enable and configure customer SMS and email notifications. For more information, see [Notify Twilio Direct driver](#) .

Customers are notified when one of the following activities is performed to the work order task:

- Work order task is created
- Work order task is assigned
- Work order task is reassigned
- Work order task is rescheduled
- Work order task is completed
- Work order task is canceled
- Agent starts to travel to the work order task location
- Agents reaches to the work location
- Appointment booking is confirmed
- Appointment booking is rescheduled
- Appointment booking is canceled

Request task management

A request contains one or more tasks. These tasks allow qualifiers to define activities that must be done to complete a request.

Administrators can create multiple tasks under a single request.

Splitting a request into separate tasks, when necessary, enables qualifiers to do the following:

- Assign different aspects of a request to different staff members.
- Assign tasks to staff members who have different set of skills, or are in different locations.
- Schedule tasks so they are either done one after another, or at the same time by different staff members.
- Schedule additional tasks, if necessary, to complete the request.

Note:

If you have the Request life cycle is request driven configuration option activated, you can manually add tasks as needed. If you have Request life cycle is task driven activated, an initial task is automatically created when the request record is created.

Configuration Overview

Optionally, set up one or more additional request task management configurations:

- [Task windows](#)

Set a task window to define the time period for performing the task by specifying the start and end dates.

- [Create a task template for common task requests](#)

Create task templates to efficiently manage frequently repeated tasks across multiple jobs. By reusing these templates in various request templates, you save time and ensure consistency. Task templates can also be used in Work Order requests to automatically include common information, streamlining the process and minimizing errors.

- [Clone a request task](#)

Clone an existing task to save time and ensures consistency by allowing administrators to quickly replicate tasks while reducing errors and enabling easy customization.

Related topics

[Change the location of a request](#) 

[Request approvals](#) 

[Collaborate on a request](#) 

[Close a request](#) 

Task windows

A task window is the time period, bordered by start and end times, in which a task is performed.

Task windows can be flexible or fixed, and are used by the route optimization and auto-dispatch features when determining the daily schedule of staff members. A flexible window has start and end times that the application attempts to respect when dispatching or routing a task automatically. The system can reschedule a flexible task window if necessary, to make it fit into the schedule of a staff member. A fixed task window cannot be rescheduled. If the auto-router that optimizes task routes or the auto-dispatcher cannot schedule the task for the fixed window time period, that task is not scheduled at all. The time interval configured for a window cannot be less than the time required to perform the task.

For more information on creating work order tasks, see [Create a work order task](#).

For more information on Work order task start and end dates, see [Work order task start and end dates](#).

Create a task template for common task requests

If you have tasks that are often repeated across multiple jobs, you can create and reuse a task template in multiple request templates. You can also use it on a Work order request to pull common and repeatable information into a request.

Before you begin

Role required: `wm_admin`

Create a request template and an associated task template that contains the information you want to reuse.

Note:

Checklist templates are a way to populate a checklist of tasks to be completed. Checklist templates are created on a Work order request or on a Work order task. After being created, they can be saved as a template and be reused.

When you create subsequent request templates, you can select the task template from the **Task Template** field and save the file.

About this task

A work order outlines the entire request or process. A work order task are the detailed steps for the parent work order. Every work order needs at least one work order task to get assigned to a specific agent to finish that step. Every work order task must have a parent work order to track the request.

Sometimes work orders are opened with the same purpose, and these work orders should have similar flows and similar work order tasks. A work order template can be used to fill in some fields in the work order, and create work order tasks.

The difference between a work order template and task template is you can't create a task template alone, it must be part of the work order template. Creating a task template is a step of creating a work order template since you can define tasks and task templates for a work order or work order template.

With request tasks, work order tasks are not required, though they can be used. Request task management gives you the ability to split a request into multiple tasks. This document, Create a task template for common request tasks, describes the ability to use the work order task templates to apply them to common or repeated requests that you might have.

Procedure

1. Navigate to **All > Field Service > Catalog & Knowledges > Work Order Templates**.
2. Select **New** and enter the following information.

Work Order Template form

Field	Description
Name	A descriptive name for the Work order Template.
Short description	A short description of the template.
Description	A detailed description of the template.
Checklist template	A Checklist template saved from the Work Order Request Form.

3. Select **Add Task**.
4. Select **Copy Task Template** to use a previously created template, or enter the following information.

Work Order Task Template form

Field	Description
Task type	The type of task being requested.
Name	Descriptive name of the task.

Field	Description
Description	Detailed description of the task.
Parts and quantities	What parts and how many are needed to complete the task.
Dispatch group	The dispatch group to assign the task to.
Depends on	Indicates if the task depends on another task. For example, if you have two tasks, you can make task 2 dependent on task 1 completing before task 2 can start.
Checklist template	A Checklist template saved from the Work order Request Form.
Work type	The type of work being performed during the task.

5. Select **Submit**.

Clone a request task

Existing tasks can be cloned to create tasks with the same populated fields.

Before you begin

Role required: admin, ITIL, creator, or catalog admin

About this task

In the cloning process, the following information is copied from the source task:

- Parent request reference
- Short description
- Description
- Assignment group
- Location
- Required skills

Procedure

Open the request task and select **Clone Task** under **Related Links**.

The application creates a task in **Draft** state. The **Work Notes** field contains the original task number and text stating that the task is a clone.

Configuring Field Service Quality Management

Field Service Quality Management allows organizations to review work order tasks. It introduces the "Reviewer" role, who can review tasks and provide feedback. Reviewers can close tasks or send tasks back to agents when more information is needed.

Related topics

[Field Service Quality Management](#)

[Review a task](#)

[Respond to a reviewed task](#)

[Field Service Quality Management components](#)

Activate Field Service Quality Management

You can activate the Field Service Quality Management plugin (com.sn_fsm_quality) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Field Service Quality Management requires a separate subscription from the rest of the ServiceNow AI Platform.

To purchase a subscription, contact your ServiceNow account manager. When you purchase a subscription, certain plugins are activated automatically. If a paid plugin isn't activated automatically, you can manually activate it from the All Applications list in your instance.

Note:

Before purchasing a subscription, you can evaluate the feature on a non-production instance without charge by requesting it from the Now Support Service Catalog.

Role required: admin

About this task

The following items are installed with Field Service Quality Management:

- Tables
- Substates
- Roles

For more information, see [Field Service Quality Management components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Quality Management plugin (com.sn_fsm_quality) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Related topics

[Field Service Quality Management](#)

[Review a task](#)

[Respond to a reviewed task](#)

[Field Service Quality Management components](#)

Set criteria for quality review

Configure criteria to determine which closed work order tasks qualify for review, enhancing efficiency and maintaining high service standards.

Before you begin

Role required: admin

About this task

Out of the box, a task qualifies for review when one of the following criteria is met.

- The task's work type is "Install"
- The task is associated with a retired asset
- Five or more closed tasks in the past month are associated with the same asset
- The task is closed by a contractor

Follow these steps to customize the criteria to suit your needs.

Procedure

1. Navigate to **All > Field Service > Quality Administration > Review Configuration**.
2. In Workflow Studio, update the **Flow Variables**.
3. Select **Save**.

Setting up inventory and asset management

Inventory and asset management in Field Service Management refers to the process of efficiently organizing, tracking, and controlling resources such as equipment, parts, stockrooms, and other assets used in field service operations.

Assets and model categories are created as needed, using Enterprise Asset Management. For more information, see [Create enterprise assets](#) .

Configuration overview

If your organization needs to track inventory or schedule equipment, use the following information to set up one or both of the following features.

- [Configuring stockrooms](#)

Add stockrooms to strategically arrange and organize physical or virtual spaces to store and manage inventory items, such as assets or parts.

- [Configuring resource scheduling](#)

Create equipment categories and instances to use when assigning crews or work order tasks.

Configuring stockrooms

Configure stockrooms to strategically arrange and organise physical or virtual spaces to store and manage inventory items, such as assets or parts.

Stockrooms are used to store and manage the inventory items required for field service activities, such as required parts, assets, equipment, and supplies. Each user, irrespective of their role as an agent or manager, is initially assigned a personal stockroom by default. The Enterprise Asset Management application provides different types of stockroom to help users locating parts from

nearby facilities beyond their personal stockroom. These includes warehouse stockrooms, PUDO (Pick Up Drop Off) stockrooms, FSL (Forward Shipping Location) stockrooms, and more.

Configuration overview

The steps for setting up stockrooms are:

1. Create stockroom for Field Service Management assets

Establish a stockroom to store assets, enabling effective tracking and management of your inventory.

2. Add preferred stockrooms to an assignment group

Organize preferred stockrooms for work groups, enabling agents to efficiently search for parts within their designated stockrooms.

Create stockroom for Field Service Management assets

Create a stockroom in the Field Service Management application and assign assets to it.

Before you begin

Role required: admin

About this task

Stockrooms are separate, standalone entities in the Field Service Management application. When stock is low on a particular asset, stock rules can notify an asset manager, or automatically transfer inventory from one stockroom to another. For more information about stock rules, see [Create a stock rule for enterprise assets](#).

Procedure

1. Navigate to **All > Inventory > Stockrooms**.
2. Click **New**.
3. On the form, fill in the fields.

Field	Description
Name	Display name and identifier of the stockroom.
Assignment group	Group that primarily uses the stockroom.
Manager	Person in charge of the stockroom. Receives restocking notifications and requests for the stockroom's stock rules.
Location	Physical location of the stockroom.
Type	Type of stockroom. Choose from the following options: <ul style="list-style-type: none"> ○ Central Warehouse ○ Field Agent ○ FSL ○ On site ○ PUDO ○ Warehouse

Field	Description
Hours of operation	Hours during which the stockroom operates.
Description	Description of the stockroom.
Exclude from distribution channels	Option to exclude the stockroom from all stockroom distribution channels, which link stockrooms together for more efficient asset sourcing and transfers.
Exclude from service locations	Option to exclude the stockroom from all service locations in which you are completing work orders or work order tasks.
External	Indicates if this stockroom is managed internally (check box is cleared) or is managed externally by a third party (check box is selected).

4. Select Save.

The newly created stockroom appears in the **All stockrooms** tab.

Add preferred stockrooms to an assignment group

Set up preferred stockrooms for work groups so agents can search parts from their preferred stockrooms using the Now Mobile Agent application.

Before you begin

The Field Service Advanced Parts Sourcing plugin (com.snc.fsm_advanced_parts_sourcing) must be activated. For more information, see [Additional plugins for Field Service Management](#).

Role required: wm_admin

Procedure

1. Navigate to **All > Field Service > Group Management > Work Groups**.
2. Open a work group for which you want to add preferred stockroom.
3. In the Preferred Stockroom related list, select **New**.
4. On the form, fill in the fields.

Preferred Stockroom form

Field	Description
Assignment group	Assignment group to be linked with the preferred stockroom. Groups with the <i>wm_work</i> type are listed.
Stockroom	The preferred stockroom.
Active	Option that sets the preferred stockroom.
Order	Enter the order for the stockroom. The stockroom with lowest order is preferred and automatically sourced
Conditions	Add conditions. For example, if model category is hardware, use the preferred stockroom.

Field	Description
Type	Select the workflow to use the preferred stockroom. You can use the stockroom to source, dropoff, or for both operations.

5. Click **Submit.**

The preferred stockroom is created for the selected assignment group.

- 6. Select **Preferred Stockroom** option in the **Part Search Criteria** property to help Field Service agents search parts from the preferred stockrooms using the Now Mobile Agent application.** For more information, see [Advanced Part Sourcing components](#).

Related topics

[Setting up Field Service user groups](#)

Configuring Resource Scheduling

Create equipment categories and instances to use when assigning crews or work order tasks.

Assign equipment to crews or work order tasks to ensure crews are appropriately equipped. Add equipment requirements to work order tasks to confirm equipment needs are met. Check in, check out, or report equipment breakdowns on the Now Mobile Agent application.

Configuration overview

The steps for setting up resource scheduling are:

1. [Activate Resource Scheduling](#)

Activate the Resource Scheduling plugin.

2. [Create an equipment category](#)

Create equipment categories to organize types of equipment that can be assigned to crews.

3. [Create an equipment instance](#)

Create equipment instances with unique identifiers to assign to crews or work order tasks.

4. [Add skills to an equipment instance](#)

Add skills to equipment to ensure only skilled, certified, or trained personnel are assigned the equipment.

Activate Resource Scheduling

You can activate the Resource Scheduling plugin (com.snc.fsm_resource_scheduling) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Field Service Resource Scheduling requires the Field Service Crew Operations (com.snc.fsm_crew_scheduling) plugin. For more information about activating Field Service Crew Operations, see [Activate Field Service Crew Operations](#). Ensure that these plugins are activated before you install Field Service Resource Scheduling.

Role required: admin

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Resource Scheduling plugin (com.snc.fsm_resource_scheduling) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. **Optional:** If demo data is available and you want to install it, click **Load demo data**. Demo data comprises sample records that describe application features for common use cases. Load demo data when you first install the application on a development or test instance.
4. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Create an equipment category

Create equipment categories to organize types of equipment.

Before you begin

Role required: wm_admin

About this task

Equipment categories or resource categories are types of equipment that can be assigned to crews.

Procedure

1. Navigate to **All > Field Service > Equipment Resources > Equipment Categories**.
2. Select **New**.
3. Enter a name in the **Category name** field.
4. Enter a description in the **Short description** field.
5. Display equipment on the Dispatcher Calendar by selecting **Show on schedule**.
6. Select **Active** to make this category active.
7. Select **Submit**.

Result

The equipment category is added to the Resource categories list.

Related topics

[Create an equipment instance](#)

Create an equipment instance

Create equipment instances with unique identifiers to assign to crews or work order tasks.

Before you begin

Role required: wm_admin

About this task

Equipment instances are individual instances of equipment with unique identifiers. Instances are organized into equipment categories that can be assigned to crews or work order tasks.

Note:

An equipment instance can be assigned to only one crew at a time.

Procedure

1. Navigate to **All > Field Service > Equipment Resources > Equipment Instances.**
2. Select **New.**
3. On the form, fill in the fields.

Resource category form

Fields	Description
Identifier	Unique identifier for the instance.
Category	Name of the equipment category.
Work schedule	Schedule of when an instance is available.
Asset	Asset relevant to the instance.
Location	Home office or base location of the instance.
Status	Current status of the instance. The available values are: <ul style="list-style-type: none"> ○ Available ○ In Use ○ Unavailable
Active	Option to make the instance active and display it on the dispatcher calendar.
Description	Description of the equipment instance.

4. Select **Submit.**

Result

Equipment instance is created. If active and available, you can assign the instance to crews or work order tasks.

Related topics

- [Create an equipment category](#)
- [Scheduling and assigning equipment to tasks and crews](#)
- [Assign equipment to a planned crew](#)
- [Equipment on Mobile Agent](#)

Add skills to an equipment instance

Add skills to equipment to ensure only skilled, certified, or trained personnel are assigned the equipment.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Field Service > Equipment Resources > Equipment Instances**.
2. Open an equipment instance.
3. Open the **Resource Skills** related list.
4. Select **New**.
5. On the form, fill in the fields.

Resource Skills Form

Field	Description
Name	Name of the skill.
Description	Description of the skill.
Level type	The type of skill required.
Active	Enables or disables the skill requirement.

6. Select **Submit**.

Result

The skill is added to the equipment instance.

Setting up CSM/FSM Configurable Workspace

Setting up CSM/FSM Configurable Workspace involves configuring Dispatcher Workspace and the Field Service Territory Planning Console.

To enhance efficiency in task management and agent assignments, set up the Dispatcher Workspace. This setup will help in organizing and distributing tasks effectively. Use the Field Service Territory Planning tool to define and assign the most appropriate territories for work order tasks, which helps achieve optimal task distribution. Additionally, configure the CSM Agent Workspace and establish specific roles to facilitate precise task execution. Lastly, configure Workforce to manage team schedules, access geographical data, and track historical movements of agents, ensuring a comprehensive management system that supports both current and future operational needs.

Configuration overview

The steps for setting up CSM/FSM Configurable Workspace are:

1. [Configuring Dispatcher Workspace](#)

Optimize task management and enhance agent assignments by configuring the Dispatcher Workspace.

2. [Configuring Field Service Territory Planning Console](#)

Field Service Territory Planning optimizes work order management by selecting the most suitable territory for a task based on predefined criteria. This ensures that tasks are assigned to the most appropriate agent or group, enhancing efficiency and improving service delivery within that territory.

3. Setting up Field Service in CSM Agent Workspace

Activate Field Service in CSM Agent Workspace to set up roles for performing the tasks.

4. Configuring Workforce

Configure Workforce to view agent schedules, create personal events, and view tasks on a map.

Configuring Dispatcher Workspace

Configure the Dispatcher Workspace to optimize task management and agent assignments.

Dispatcher Workspace configuration

Watch this short video to see how administrators configure the filters, sorting options, and ad-hoc filters to facilitate dispatchers while working in the Dispatcher Workspace.

Dispatcher Workspace configuration

Configuration overview

The steps for setting up Dispatcher Workspace are:

1. Activate Dispatcher Workspace

Activate the Dispatcher Workspace plugin.

2. Define colors for work order states

Define colors for work order states so that you can have a visual indication of the task state in the Dispatcher Workspace.

3. Configure time zones for dispatchers

Add time zones for dispatchers to choose from, making it easier for dispatchers to see what time zones agents are located in.

4. Configure the fields to appear on task cards or in the contextual side panel

Set up task cards and the contextual side panel by including more fields, giving dispatchers extra information to speed up decision-making.

5. Determine the tasks to appear in the task panel

Define default filters to determine which tasks appear on the task panel.

6. Configure filters for dispatchers

Create filters to enable dispatchers to filter work order tasks.

7. Configure sort options for task panel

Configure options to enable dispatchers to sort work order tasks.

8. Configure agent list sort options

Configure the options available for dispatchers to sort agents.

9. Change the number of days that dispatchers can hide off shift agents

Increase the amount of time that the hide off-shift agent shows on the calendar, enabling dispatchers to plan around agent schedules farther in advance.

10. Configure the appearance of the map in Dispatcher Workspace

Configure map settings to define the style and appearance of the map in Dispatcher Workspace.

11. Configure settings for Dispatcher Workspace

Automate processes and provide dispatchers with more information to increase their efficiency and effectiveness in completing tasks.

12. Configuring communication from Dispatcher Workspace

Configure the Dispatcher Workspace to send messages to agents, enabling faster collaboration and more effective communication.

13. Setting up dynamic scheduling in Dispatcher Workspace

Set up Dynamic scheduling to enable dispatchers to efficiently assign, unassign, or reassign work order tasks.

14. Customize Dispatcher Workspace

Use UI Builder to build pages for CSM Configurable Workspace or custom web experiences using Next Experience and custom web components.

Related topics

[Using Dispatcher Workspace](#)

Activate Dispatcher Workspace

You can activate the Dispatcher Workspace plugin (sn_fsm_disp_wrkspc) for Field Service Management if you have the admin role. The application includes demo data and installs related plugins if they are not already installed.

Before you begin

Role required: admin.

About this task

Activation of Field Service Management Dispatcher Workspace [sn_fsm_disp_wrkspc] plugin activates the following plugins.

Plugins for Dispatcher Workspace

Plugin	Description
Field Service Management Configurable Workspace [com.snc.uib.fsm_agent_workspace].	Provides the components, lists, and forms to support Field Service Management on CSM Configurable Workspace.

Plugins for Dispatcher Workspace (continued)

Plugin	Description
sn-fsm-components [com.sn_fsm_components].	Provides the repository in which to store Field Service Management custom components to be used in the UI Builder.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the **FSM Configurable Dispatcher Workspace** plugin (sn_fsm_disp_wrkspc) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Define colors for work order states

Define colors for work order states so that you can have a visual indication of the task state in the Dispatcher Workspace.

Before you begin

Role required: wm_admin, admin

You must have the `work.management.task_state_color.use_hex` property enabled in order to change the colors for work order task states.

https://player.vimeo.com/video/1065996509?h=3177369840&badge=0&autoplay=0&player_id=0&app_id=58479

About this task

By default, each work order task state is represented with a specific color. You can change colors for existing work order task states or define a color for a new state. The assigned work order state colors appear in the task card and calendar of Dispatcher Workspace.

You can display events in their selected default color on Dispatcher Workspace calendar by configuring the `sn_fsm_disp_wrkspc.agent_shift_schdIng_event_color` property. Different events can be created in the Workforce Optimization for Field Service application, such as agent's break, time-off, and more. For more information about property, see [Workforce Optimization for Field Service components](#).

Procedure

1. Navigate to **Field Service > Dispatcher Workspace Configuration > Task State Colors**.
2. Either select an existing task state or create a new one.

- To select the task state whose colors you want to change, click the task state name.
- To create a new task state, click **New**.

3. On the form, fill in the form.

State Color Configuration

Field	Description
Name	Work order task state name.
Primary field value	State of the work order task.
Secondary field value	Substate of the work order task.
Color	Hexadecimal color code.
Active	Option to see the changes in Dispatcher Workspace.

4. Click **Submit**.

Result

The color code is applied to the task state. The color appears in the task card and calendar of Dispatcher Workspace.

Configure time zones for dispatchers

Add time zones for dispatchers to choose from and make it easier for dispatchers to see what time zones agents are located in. If there are too many time zones, you can also remove time zone options from a dispatcher's options.

About this task

Dispatchers can choose what time zones to display on the calendar or hybrid views in Dispatcher Workspace. You, the administrator, determine what time zones each dispatcher can add.

After you add a time zone as an option, dispatchers can select it from the settings menu. For more information, see the calendar section on [Enable Dispatcher Workspace settings](#).

Before you begin

Role required: admin

Procedure

1. Navigate to **All > User Administration > User**.
2. Select a user who's a dispatcher.
3. Select and hold (or right-click) **Time zone** and select **Configure Dictionary**.
4. Select the **Choices** list.
5. Search for the time zone you want to add or remove.
6. Select the **Inactive** field and Choose from the following.
7. Select **Update**.

Example – Time zones for dispatchers

Explore how adding multiple time zones to Dispatcher Workspace makes managing agent schedules more efficient.

About this task

Problem scenario: Sarah is a ServiceNow administrator for a European field service company. Dispatchers in their organization face the daily challenge of scheduling field service agents who are based in all the time zones across Europe. Because dispatchers can't see what time zones agents are in, dispatchers regularly assign urgent work order tasks to agents in the wrong time zone. Improper work order assignment leads to delays in completing the work and customer dissatisfaction.

Solution: Sarah decides to add all the time zones that field service agents are located in as options for dispatchers to add to their Dispatcher Workspace. Switching between all the time zones agents are located in to see local times significantly enhances dispatcher's ability to manage and schedule field service agents effectively. With immediate visibility into the local times of agents, dispatchers can make informed decisions, ensuring that no agent is dispatched at an inconvenient local time. All Sarah had to do was add the relevant time zones to the dispatcher's user record. This streamlined the scheduling processes, reduces errors, and led to higher customer satisfaction.

Before you begin

Role required: admin

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Procedure

1. Navigate to **All > User Administration > User**.
2. Select a user who's a dispatcher in Europe.
3. Select and hold (or right-click) **Time zone** and select **Configure Dictionary**.
4. Select the **Choices** list.
5. Set the **Inactive** column to **false** for the following time zones:
 - a. Europe/ Dublin
 - b. Europe/ Amsterdam
 - c. Europe/ Athens
 - d. Europe/ Istanbul
6. Select **Update**.
The dispatcher Sarah selected can now add any of the four European time zones to their Dispatcher Workspace.

Related topics

[Configure time zones for dispatchers](#)

[Change the time zone in Dispatcher Workspace](#)

Configure the fields to appear on task cards or in the contextual side panel

Add fields to task cards or the contextual side panel so more information is available to dispatchers so they can make decisions faster.

Before you begin

Role required: admin, wm_admin

About this task

Task cards provide a brief summary of the work order task in the Dispatcher Workspace. By default, these details include the work order task number, short description, scheduled start, assignment group, location, and SLA value.

Note:

If you add a field to the contextual side panel that contains date or time information, then it shows in the Planned/ Actual times section in the contextual side panel.

Procedure

1. Choose to update the data in the task cards or in the CSP.
2. Choose the following:
 - o To add a new field, select **New**.
 - o To edit an existing field, select the field you want to edit.
3. Fill in the form.

Application Field Set Item form

Field	Description
Field name	Field that to be displayed on the card or contextual side panel.
Name	Name for the field.
Always show	Option for determining whether the field displays on the task card or contextual side panel and can't be removed by the dispatcher in the Dispatcher Workspace.
Default show field	Option for determining whether the field shows by default in the task card or contextual side panel. The dispatcher won't be able to remove this field in the Dispatcher Workspace.
Order	The order number for the field. Fields assigned lower-order numbers appear higher in the order.

4. Select **Submit**.

Determine the tasks to appear in the task panel

Define default filters to determine which tasks appear on the task panel in the Dispatcher Workspace.

Before you begin

Role required: admin, wm_admin

About this task

By default, dispatchers can filter work order tasks based on their states such as Pending Dispatch, Assigned tasks, P1 tasks, In-progress tasks, Maintenance, and Upcoming tasks.

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Task Panel Filters**.
2. Click **New**.
3. On the form, fill in the fields.

Note:

The **Category** and **Module** fields are read-only.

Application Filter Configuration form

Name	Description
Title	Filter title
Table	Table that contains the fields used to filter the list of work order tasks. The default table is <i>wm_task</i> .
Filter Query	Query to narrow down the fields that are displayed in the task panel.
Order	Display order of the filters in the Dispatcher Workspace. Filters that have lower order numbers appear higher in the order.
User	Name of the user to whom the filter applicable.
Active	Option for enabling the filter in the Dispatcher Workspace.

4. Click **Submit**.

Configure user groups for dispatchers in Dispatcher Workspace

Enable dispatchers to be a member of different user groups so they can efficiently manage agents.

Before you begin


Role required: admin

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About this task

Dispatch groups must be added to a dispatcher's user record so they can see members of the user group. This also allows the dispatcher to see the assignment groups that are part of that user group in Dispatcher Workspace.

Procedure

1. Navigate to **All > System Security > Users and Groups > Users**.
2. Select a user who is a dispatcher.
3. Select the **Groups** tab.
4. Select **Edit**.
5. Select the Dispatch Group that you want the dispatcher to be a part of.
6. Select the Add icon .
7. **Optional:** Repeat steps five and six until all Dispatch Groups are added.
8. Select **Save**.

Configure filters for dispatchers

Create filters for dispatchers to filter work order tasks in Dispatcher Workspace.

Before you begin

Role required: wm_admin, admin

About this task

By default, dispatchers can filter tasks based on work order task states. You can also create your own filters for the tasks.

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Task Panel Dispatcher Filters.**

Note:

Select any filter from the Application Filter Configurations list to see what it filters from the task panel in Dispatcher Workspace.

2. Click **New.**
3. On the form, fill in the fields.

Application Filter Configuration form

The following table helps you to understand the field names and their descriptions

Name	Description
Title	Filter title
Table	Table that contains the fields used to filter the list of work order tasks. This field is automatically set to the wm_task table.
Filter Query	Query to narrow down the fields that are displayed in the task panel.
Order	The display order of the filters in Dispatcher Workspace. Filters that have a lower order number appear higher in the order.
Active	Option for enabling the filter in Dispatcher Workspace.

4. Click **Submit.**

Configure sort options for task panel

Configure options for dispatchers to sort work order tasks in Dispatcher Workspace.

Before you begin

Role required: wm_admin, admin

About this task

By default, dispatchers can sort tasks based on only the following options:

- Scheduled Start Date - Earliest
- Scheduled Start Date - Latest
- Priority - Highest
- Window End - Earliest

- Window End - Latest
- Window Start - Earliest
- Window Start - Latest

Procedure

1. Navigate to **Field Service > Dispatcher Workspace Configuration > Task Panel Sorting**.
2. Click **New**.
3. On the form, fill in the fields.

Sort Option Configuration Form

Name	Description
Name	Unique name for the sort option.
Display Name	Labels for the fields that appear as the sort option in Dispatcher Workspace.
Table	Table that contains the fields that are used to sort the list of work order tasks. This field is automatically set to the wm_task table.
Field	Field used for sorting the list of tasks.
Active	Option for displaying the field for sorting tasks in Dispatcher Workspace.
Sort order	Sort order for the sort field labels. The default value is ascending. To use a descending order, select z-a .
Order	The display order of the sort options in Dispatcher Workspace. Sort options that have a lower order number appear higher in the order.

4. Click **Submit**.

Configure agent list sort options

Configure the options available for dispatchers to sort agents in the Dispatcher Workspace.

Before you begin

Role required: admin

About this task

By default, dispatchers can view recommended agents based on the distance to the work order task, skills, or parts.

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Agent Sorting**.
2. Click **New**.
3. On the form, fill in the fields.

Note:
The **Category** and **Application** fields are read-only.

Agent recommendation sort criteria

Name	Description
Name	Unique name for the sort option.
Active	Option for enabling the sort option to appear in Dispatcher Workspace.
Display Name	Labels for the fields that appear as the sort option in Dispatcher Workspace.
Ranking Method	<ul style="list-style-type: none"> ○ More is better: When setting the ranking, a higher value is better. For example, more availability is better when determining the agent ranking. ○ Less is better: When setting the ranking, a lower value is better. For example, fewer cases are better when determining the agent ranking.
Order	Display order of the sort option in Dispatcher Workspace.
Criterion	Criteria to determine the agents that are displayed in the list.

4. Click **Submit**.

Configure event body fields

Administrators can add fields to event bodies so Dispatchers have more information about events when they're viewing the calendar in Dispatcher Workspace.

About this task

Administrators can show up to five fields on the event body in Dispatcher Workspace. Dispatchers can choose what fields show on event bodies in the Dispatcher Settings under the Events tab. For more information on the Events tab, see [Enable Dispatcher Workspace settings](#).

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Calendar Work Order Task Fields**.
2. Select **New**.
3. On the form fill in the fields.

New event body field values

Field	Description
Field Name	The field that shows on event bodies in Dispatcher Workspace.
Name	The name of the field that shows in Dispatcher Workspace.
Always show	Forces the field to show for all dispatchers. Dispatchers can't turn off the field when Always show is set to True. If this field is set to false, then Dispatchers can turn the event field on or off.

Field	Description
Default show	If the field shows in event bodies
Order	<p>The order that the field shows on an event body in relation to the other fields. The lower the value, the higher the field shows on an event body.</p> <p>Note: There can be a maximum of five fields on event bodies. If there are more than five fields, only the five with the lowest order numbers show.</p>

4. Select Submit.

Change the number of days that dispatchers can hide off shift agents

Increase the amount of time that the hide off-shift agent shows on the calendar in Dispatcher Workspace so dispatchers can plan around agent schedules farther in advance.

Before you begin

Role required: admin

About this task

By default dispatchers can use the hide off shift agents button up to seven days in the future. If a dispatcher navigates on the calendar in Dispatcher Workspace farther than seven days in the future, then the hide off shift agents button is disabled. You can change the number of days that the hide off shift agents button shows.

For more information on hiding off shift agents, see [Show or hide off shift agents from the calendar in Dispatcher Workspace](#).

Warning:

Extending the number of days in the future that the hide off shift agents button is available causes the nightly processing of the Populate Agents Daily Schedule Table to take longer. Don't extend the number of days that the hide off shift agents button is available past 15 days.

Procedure

1. Navigate to **All**, type `sys_properties.list` in the filter field, and press enter on your keyboard.
2. Select **New**.
3. On the form, fill in the fields.
4. Select **Submit**.

Related topics

[Run the Populate Agents Daily Schedule Table](#)

[Show or hide off shift agents from the calendar in Dispatcher Workspace](#)

Configure the appearance of the map in Dispatcher Workspace

Configure map settings to define the style and appearance of the map in Dispatcher Workspace.

Before you begin

Role required: admin, wm_admin

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Map Settings**.
2. Set the system properties that control the map appearance.

Dispatcher Workspace Map Settings

Property	Description
sn_fsm_disp_wrkspc.dispatch_hide_the_map_in_dispatcher_workspace	<p>Hides the map in Dispatcher Workspace.</p> <ul style="list-style-type: none"> Type: Boolean Default value: False
sn_fsm_disp_wrkspc.sn_fsm_dispatcher_map_zoom_level	<p>Dispatcher map zoom level. The map marker zooms the map while keeping the map marker stationary and restricts the map view to the maximum zoom level specified.</p> <ul style="list-style-type: none"> Type: String Default value: 12. Valid values are in between 1–20
sn_fsm_disp_wrkspc.sn_fsm_dispatcher_live_display_of_agent_location	<p>Enables the live display of agent location from task to task on the dispatch map.</p> <ul style="list-style-type: none"> Type: Boolean Default value: True
sn_fsm_disp_wrkspc.sn_fsm_dispatcher_map_refresh_agent_location	<p>Dispatcher map refresh agent location. If there is an update when the check is made, then the agent's location updates on the dispatch map. The value is in seconds.</p> <ul style="list-style-type: none"> Type: String Default value: 300. Don't set the value to below 60.
sn_fsm_disp_wrkspc.sn_fsm_dispatcher_map_type	<p>Dispatcher map type.</p> <ul style="list-style-type: none"> Type: List Default value: Roadmap <p>Note: Roadmap provides a default road map view. Choose Satellite for a Google Earth satellite view, Hybrid for a mixture of standard and satellite views, or Terrain for a topographical map based on terrain information.</p>
sn_fsm_disp_wrkspc.sn_fsm_dispatcher_map_style	<p>Dispatcher map style. Not supported by the Google Map API to customize elements of the Google Map. Allows you to style features of maps, such as roads, water bodies, and day or night mode.</p> <ul style="list-style-type: none"> Type: String Default value: Null

Property	Description
sn_fsm_disp_wrkspc.sn_fsm_display_panoramic_360_views	<p>Enables the street view service to display panoramic 360-degree views from designated roads throughout its coverage area. You can zoom and pan. Use street view on the map or panoramas directly within the map.</p> <ul style="list-style-type: none"> Type: Boolean Default value: True
sn_fsm_disp_wrkspc.sn_fsm_display_agent_routes	<p>Enables the display of agent routes from task to task on the dispatch map. When this is enabled, the Agent route icon shows on the agent card. Selecting the Agent route icon displays the agent's route to the work order task on the map.</p> <ul style="list-style-type: none"> Type: Boolean Default value: True
sn_fsm_disp_wrkspc.enable_optimizer	<p>Allows dispatchers to optimize agent routes from the dispatch map.</p> <ul style="list-style-type: none"> Type: Boolean Default value: True
sn_fsm_disp_wrkspc.dispatch_map_zooming_level	<p>Controls the amount of zooming necessary to have icons cluster together. The lower the value, the more users have to zoom out before the markers to start clustering.</p> <ul style="list-style-type: none"> Type: String Default value: 15. Valid values are in between 1–20
sn_fsm_disp_wrkspc.dispatch_map_cluster_type	<p>Defines how clustered pins show the number of markers (Marker value) or the number of items in a region (Item value). Markers group tasks, agents, and crews in a region into one pin. Items show tasks, agents, and crews in a region as individual pins.</p> <ul style="list-style-type: none"> Type: List Default value: Marker.

3. Select Save.

Map pins in Dispatcher Workspace

Unique map pins in the dispatch map mark the location of tasks and agents.

Users with the `wm_dispatcher`, `wm_admin`, or `wm_initiator_qualifier_dispatcher` roles can manage tasks and routing from the map, filter the view, and determine at a glance what agents are on time or behind schedule.

The dispatch map shows the geographical area containing the agents from any assignment group that is part of your dispatch group.

For a list of map pins and a description of their meaning, see [Map iconography in Dispatcher Workspace](#).

For information about changing the appearance of a map pin, see [Change the assigned graphics of map pins on the map in Dispatcher Workspace](#).

Change the assigned graphics of map pins on the map in Dispatcher Workspace

Customize map pins so your dispatch map shows unique graphics relevant to dispatcher work.

Before you begin

Role required: wm_admin

About this task

You can change map pins related to agents, and task states. You can't change pins that indicate task priority.

New icon pin graphics should be sized at 54x54 pixels in PNG or SVG format.

For a list of map pins that show on the dispatch map, see [Map iconography in Dispatcher Workspace](#).

Procedure

1. In the filter navigator, search for Images and select **System UI > Images**.
2. In the **Name** search field, type `*sn_fsm_disp_wrkspc`.
3. Select the name of the pin that you want to update.
If you think you might want to use the existing graphic later and it is not already stored on your system, right-click the graphic and save it.
4. Select **here** if you see a message about editing the Global application.
5. In the **Image** field, select **[Update]**.
6. Select **Choose File** and find the graphic you want.
7. Select **Open**.

Result

The new graphic replaces the previous map pin graphic.

Configure settings for Dispatcher Workspace

Automate processes and provide dispatchers with more information so they can get their job done more effectively.

Before you begin

Role required: admin, wm_admin

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Workspace Settings**.
2. Select the workplace settings.

Dispatcher Workspace Settings

Property	Description
Enable Auto-refresh	Automatically refreshes the agent's calendar when an event such as a meeting, training, time-off request, personal, or an ad hoc work event is created in Dispatcher Workspace. Enabling the feature here gives dispatchers the option to enable or disable this setting on Dispatcher Workspace.

Property	Description
	<p>Note: Ensure the system property <i>Enable Shift Scheduling for FSM to Determine Availability</i> is enabled. For more information, see Activate Workforce Optimization for Field Service.</p>
Enable group metrics setting	Enables the option for dispatchers to turn on metrics for assignment groups in the Dispatcher Workspace. Assignment groups metrics show in the schedule of the Dispatcher Workspace.
Enable agent metrics settings	Enables the option for dispatchers to turn on metrics for agents in the Dispatcher Workspace. Agent metrics show in the contextual side panel of the Dispatcher Workspace.
Enable task assignment modal	Enables the task assignment modal to pop up. When this is enabled, and a task from the task panel is dragged to the schedule, a task assignment modal window will pop up with the details of the task before it's assigned. This is useful to add a confirmation step to the assignment process.
Schedule based on travel start time	Enables tasks assigned from the task panel to start based on an agent's travel time. Enabling the feature here gives dispatchers the option to enable or disable this setting on Dispatcher Workspace.
Enable navigation to task assignment window	<p>Enables the Go to assignment window option to appear in the task panel. The option brings the calendar to the window start of the selected task.</p> <p>Note: Select a different task in the task panel to close the assignment window.</p>
Enable icon display on calendar event	Enables icons to display for calendar events on the calendar in Dispatcher Workspace.
Enable showing only available agents and hide off shift agents.	Enables icon to display that allows dispatchers to hide any agents that are not on shift from the calendar in Dispatcher Workspace.
Enable on event hover popover on the dispatcher workspace.	Enables more details to show when you hover over a work order task or a personal event on the calendar in Dispatcher Workspace.
Enable the SLA timer shown within the Work order task cards inside the Task Panel of the Dispatcher workspace	Enables the SLA time to appear on work order task cards in Dispatcher Workspace.
Select SLA timer type shown within the Work order task cards inside the	Enables the SLA time to load on work order task cards either in real-time, or only once when Dispatcher Workspace initially loads.

Property	Description
task panel. By default the SLA timer is nonlive.	

3. Select **Save**.

Change the graphic for calendar event icons

Customize the icons that show on calendar events to clarify their purpose or match your organization's look and feel. You can substitute your existing icons from a different application so your interfaces match.

Before you begin

Role required: wm_admin

Make sure that **Enable icon display on calendar event** is enabled. For more information, see [Configure settings for Dispatcher Workspace](#).

About this task

For a list of icons that show on calendar events, see [Calendar event icons in Dispatcher Workspace](#).

Warning:

You must understand JSON code to perform this procedure.

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Calendar Event Body Iconography**.
2. In the **Value** field, note the file name of the icon to be changed.
The icon positions and default generating field types are:
 - topIcon - The icon at the top left indicates the work type
 - bottomFirstIcon - The first icon at the bottom right indicates whether a task is a crew task
 - bottomSecondIcon - The second icon at the bottom right indicates whether a task is locked

For information on changing the fields that determine whether the icon is displayed, see [Change the fields that display calendar event icons](#).
3. Select **All** search for **Images**, and select **Images** under **System UI**.
4. Search for the file name of the icon to be customized.
5. Open the image record.
6. Select **here** if you see a message about editing the Global application.
7. Select **Update**.
8. Select **Choose File**.
9. Open the new image file.
Make sure that the name of the file you're adding matches the one that you're replacing.
10. Select **OK**.

Result

The icon is updated and appears on calendar events in Dispatcher Workspace.

Change the fields that display calendar event icons

Change the fields that determine whether icons are displayed on calendar events to something you find more useful, like a priority indication.

Before you begin

Role required: wm_admin

About this task

The icon in the top left indicates work type. The first icon on the bottom right indicates if the task is a crew task, and the second icon on the bottom right indicates if the task is locked. See [Calendar event icons in Dispatcher Workspace](#) for the full list of calendar event icons.

For information on changing the icon graphic for calendar events, see [Change the graphic for calendar event icons](#).

Warning:

You must be familiar with the JSON code format to perform this procedure.

Procedure

1. Navigate to **All > Field Service > Dispatcher Workspace Configuration > Calendar Event Body Iconography**.
2. Select **here** if you see a message about editing the Global application.
3. In the **Value** field, find and edit the `type` or `field` value for the calendar event icon that you want to change.
The icon positions and default field values are:
 - `topIcon` - The icon at the top left indicates the work type (`work_type`)
 - `bottomFirstIcon` - The first icon at the bottom right indicates whether a task is a crew task (`crew`)
 - `bottomSecondIcon` - The second icon at the bottom right indicates whether a task is locked (`lock`)

For information on changing the icon graphic, see [Change the graphic for calendar event icons](#).

4. Select **Update**.

Result

The selected field values will now trigger the icons that display in calendar events.

Clear Dispatcher Workspace resource filters

If a dispatcher experiences loading issues in Dispatcher Workspace, you can clear the Dispatcher Workspace resource filters and that can help resolve issues with loading.

Before you begin

Role required: admin.

Procedure

1. Navigate to **All > User administration > User preferences**.
2. Search for `dispatcher_workspace_resource_filters`.
3. Select the check box next to `dispatcher_workspace_resource_filters`.

4. Select the **Actions on selected rows** drop-down list.

5. Select **Delete**.

Configuring communication from Dispatcher Workspace

Sending messages to agents from Dispatcher Workspace enables you to collaborate faster and communicate more effectively.

Leverage the Microsoft Teams application through the Sidebar configuration to send messages to agents from Dispatcher Workspace. This method also means that the communication is documented and can be tracked.

About Sidebar

Messaging from the Sidebar in Dispatcher Workspace is a ServiceNow AI Platform[®] capability. For more information on configuring the Sidebar for messaging, see [Configuring Sidebar](#).

For more information on how the Sidebar works, see: [Exploring Sidebar](#).

For more information on using the Sidebar to communicate, see [Using Sidebar](#).

About Sidebar for the Field Service Mobile Agent application

Messaging from the Sidebar in the Mobile Agent application is available upon activation of the Sidebar for Field Service Management plugin (com.sn_fsm_sidebar). For more information, see [Activate Sidebar for the Field Service Mobile Agent application](#).

Setting up dynamic scheduling in Dispatcher Workspace

Dynamic scheduling enables you as a dispatcher to efficiently assign, unassign, or reassign work order tasks.

The Dispatcher Workspace integration with dynamic scheduling enables you to automatically select an agent and assign work order tasks. When you attempt to assign the new task, dynamic scheduling unassigns or reassigns the existing tasks and assigns the new task to an agent.

Note:

Tasks that are already set to Work in Progress cannot be unassigned. Only tasks that are scheduled but not started can be reassigned or unassigned.

Task priorities

If you assign a higher priority task when a lower priority task has already been assigned, dynamic scheduling assigns the higher priority task and attempts to reassign the lower priority task. If you drag a lower priority task over a higher priority task, a warning message appears and you must acknowledge it to continue.

Enabling double-booking

If double-booking is enabled, you can manually double-book an agent for more than one work order task with overlapping time. When you drag and drop a task on top of an already assigned task, the new tasks overlaps with the already assigned task and the estimated travel time is updated.

- When dynamic scheduling and double-booking are enabled, dragging a task on an already assigned task overlaps the assigned task and update its estimated travel time.
- If double-booking is not enabled and dynamic scheduling is enabled, dragging a task onto an already assigned task displays a dynamic scheduling pop-up window so you can reschedule the task.
- When double-booking and dynamic scheduling are disabled, dragging a task on an already assigned task displays an error message stating that the agent is not available at that time.

Note:

System administrators enable double-booking by setting the `work.management.allow.doublebooking.dynamicscheduling`.

Related topics

[Dynamic scheduling](#)

Customize Dispatcher Workspace

Use UI Builder to build pages for CSM Configurable Workspace or custom web experiences using Next Experience and custom web components.

UI Builder

UI Builder is a low-code environment. You should be comfortable interacting with code in a visual interface before you start editing any components. Read and become familiar with the UI builder documentation at [UI Builder](#) before you attempt to use the tool.

Warning:

Only developers with a high level of experience, sometimes referred to as pro-coders, should perform the procedures that use UI Builder.

Customizing pages in UI Builder

Next Experience components are the base elements of UI Builder pages like Dispatcher Workspace. Components range from core elements like buttons and labels to more complex components like lists and forms. You can change components to update the Dispatcher Workspace user interface or add new ones. You can also create your own components if the ones that come with UI Builder don't fit your needs.

Important:

You must use a Script Include when making any customizations to Dispatcher Workspace. For more information, see [Extend a Script Include](#).

For information on components and how to work with them in UI Builder, see [Customize UI Builder pages using components](#). The components that are available to use are listed on the developer site at [Next Experience Components](#).

You can configure nearly any area of Dispatcher Workspace in UI Builder. Three of the most common areas to update are the contextual side panel, the agent card, and the calendar. For more information see the following topics:

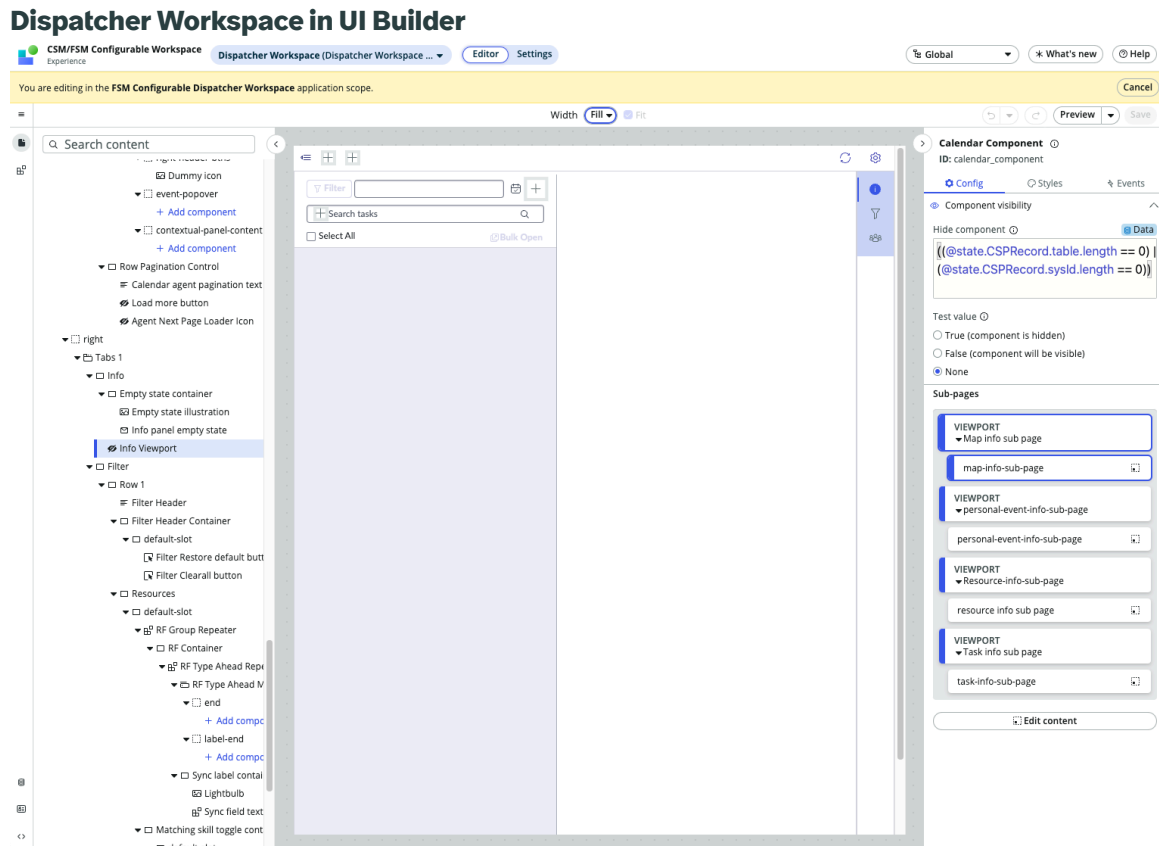
- [Customizing the contextual side panel in Dispatcher Workspace with UI Builder](#)
- [Customizing the agent card in Dispatcher Workspace with UI Builder](#)
- [Customizing the calendar grid in Dispatcher Workspace with UI Builder](#)

Customizing the contextual side panel in Dispatcher Workspace with UI Builder

Change or add fields and icons to the contextual side panel to update your Dispatcher Workspace display. Dispatchers can immediately see more relevant information so they can resolve tasks faster.

In Dispatcher Workspace, the contextual side panel shows detailed information about the things you select on the map, schedule, or task panel. The contextual side panel is built with the tabs component. Tabs determine the order of information and the icons used on the contextual side panel.

In the following image you can see the Dispatcher Workspace contextual side panel in UI Builder built with customizable tabs.



For more information on using tabs in UI Builder, see [Tabs Usage](#). For information on adding tabs, see [Add tabbed content to UI Builder pages](#).

Customizing the agent card in Dispatcher Workspace with UI Builder

Change or add fields and icons to the agent card that display more information that dispatchers can use to resolve tasks faster.

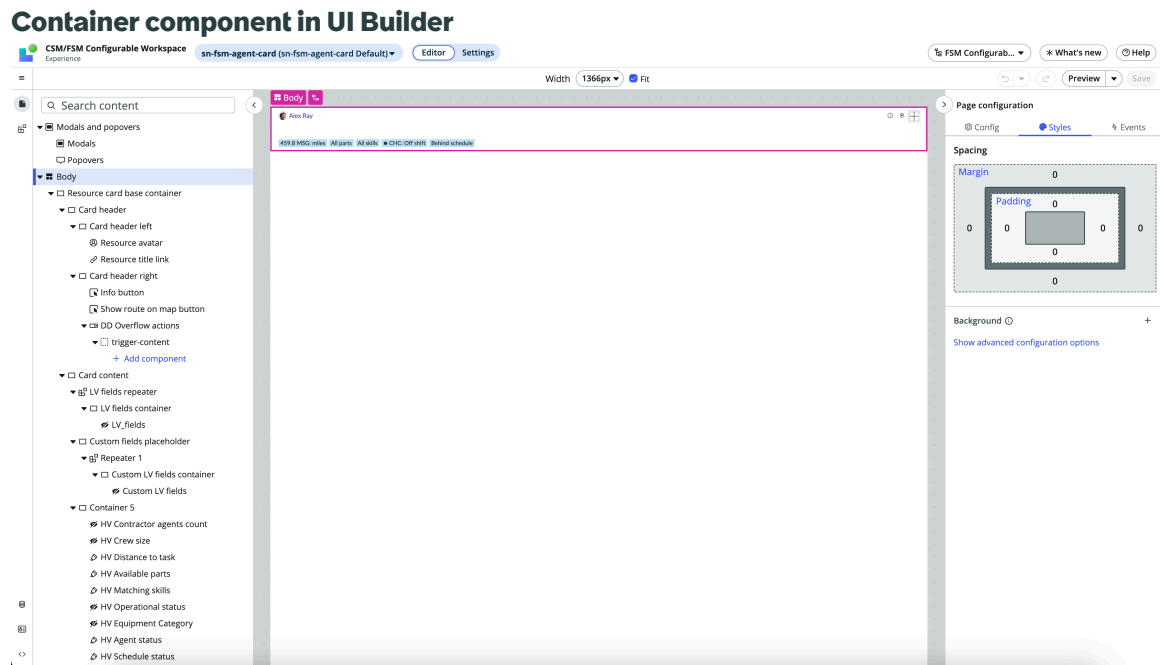
The default Next Experience components used to build the agent card are as follows:

- Highlighted value
- Text link
- Label value
- Container

In Dispatcher Workspace, agent cards show information like agent location and contact information. In UI Builder agent cards are built with a collection of Next Experience components.

Depending on your configuration, you might have the same, more, or fewer components used to build your agent card. To find out more about these components, refer to [Next Experience Components](#).

The following image shows an example of the container component used to build part of the agent card. The fields can be configured in UI Builder.



Customizing the calendar grid in Dispatcher Workspace with UI Builder

Change or add colors to the calendar grid to update your Dispatcher Workspace display so dispatchers can easily see when agents are available.

In Dispatcher Workspace, the default colors for the calendar grid are white to show that agents are available and gray that the agent is unavailable. You can customize these colors.

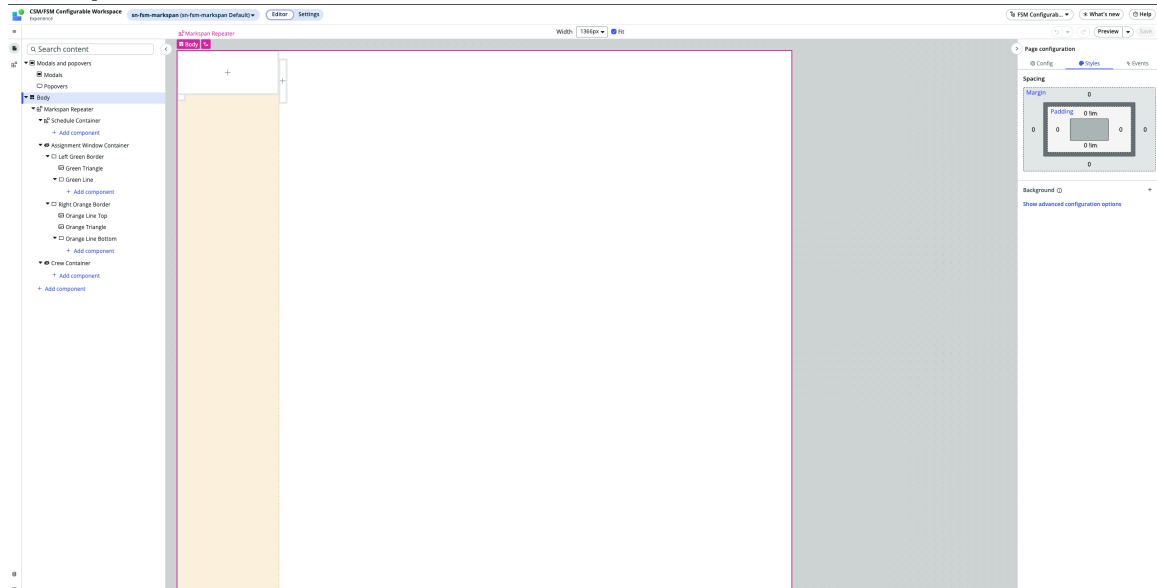
The calendar grid in Dispatcher Workspace is made using a property called markspans. Change the color of mark spans to change the color of the calendar grid. For more information, see [Calendar UIB Setup](#), and scroll to the markspans property.

Important:

Mark spans are the only property on the Calendar UIB Setup page that is supported in Dispatcher Workspace.

The following image shows an example of markspans in UI Builder that are used to define the color of the calendar grid in Dispatcher Workspace.

Markspans in UI Builder



Customize the pop over fields on the calendar in Dispatcher Workspace

Add or remove the fields that show in Dispatcher Workspace pop overs so more relevant information is easier for dispatchers to find.

Before you begin

Role required: `wm_admin`

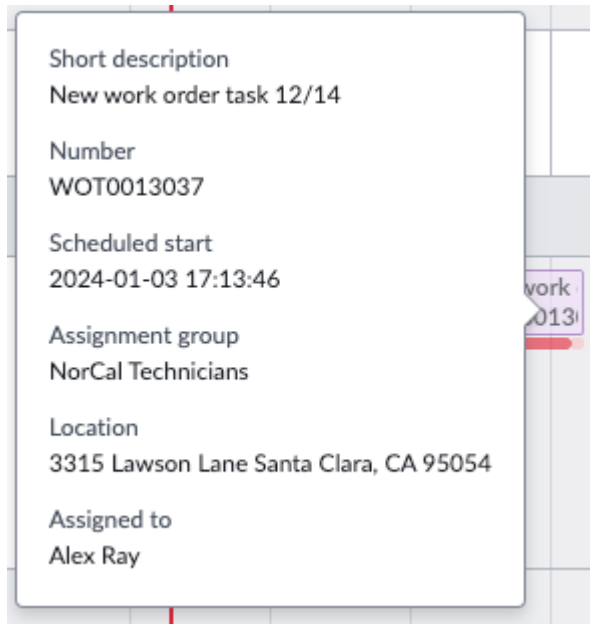
About this task

Warning: Only developers with a high level of experience using JavaScript should perform this procedure.

Using JavaScript along with a script includes, you can show different values than the default information that is shown in the pop over window. The default fields in the pop over information are:

- **Short description:** A short description of the work order task
- **Number:** The work order task number
- **Scheduled start**
- The **Assignment group**
- **Location:** The location of the work order task

The following image shows that the **Assigned to** field has been added to the pop over window to indicate who the work order task is assigned to.



Procedure

1. Find the values of the fields you want to add.
 - a. Navigate to **All > System Definition > Tables**.
 - b. In the **Search** field, search for the table with the relevant type of information.
 - Work order task values: `wm_task`
 - Schedule values: `cmn_schedule_span`
 - Personal event values: `sn_shift_planning_agent_schedule_request`
 - c. Open the relevant table and copy the value that you want to display.
2. Navigate to **All > System Definition > Script Includes**.
3. In the **Search** field, enter `DispatcherWorkspaceCalendarBrokerImplSNC` and open the record.
4. Scroll to the `getCalendarEventTooltipDetails` function.
5. Select and copy the entire `getCalendarEventTooltipDetails` function.
6. Return to **All > System Definition > Script Includes**.
7. In the **Search** field, enter `DispatcherWorkspaceCalendarBrokerImpl` and open the record.
8. Paste the `getCalendarEventTooltipDetails` function into the `DispatcherWorkspaceCalendarBrokerImpl` record beneath where it says `//Add / override customizations here..`
9. Add or remove the fields you want.
10. Select and hold (or right-click) in the header of the page and select **Save**.

Configuring advanced resource filters for Dispatcher Workspace

Advanced resource filtering allows administrators and dispatchers to create and save their own filters for Dispatcher Workspace. This lets dispatchers personalize their view in Dispatcher Workspace.

Default resource filtering

By default, Dispatcher Workspace allows dispatchers to filter what they see with the contextual side panel. Dispatchers can filter by agent, contractor, or skill. For more information, see [Filter Dispatcher Workspace views](#).

Advanced resource filtering

Advanced resource filtering allows dispatchers to create their own filtered view in Dispatcher Workspace. They can save the filtered view to personalize what they see every time they open Dispatcher Workspace. Dispatchers can also create and save any number of filters so they can quickly re-apply any view they might need to see.

Advanced resource filtering also allows administrators to create their own advanced filter and apply it to Dispatcher Workspace for all dispatchers to use.

Warning:

Advanced resource filtering is only available for filtering agents and crews. If you currently use contractors or equipment you should continue to use the default filter in the contextual side panel.

The advanced resource filter system property

When you enable the advanced resource filter system property you turn on two data base views. Database views are collections of tables. These two database views contain tables with values that dispatchers can use to create their advanced resource filters. The database views are called the agent filter configuration database view and the crew filter configuration database view.

The advanced resource filter system property also turns on a control which allows administrators to create any custom filter and add it to Dispatcher Workspace for all dispatchers to use. This control is called the Resource Filter configuration.

You must have the calendar collapsed system property (`sn_fsm_disp_wrkspc.calendarCollapsedBehavior`) enabled to use advanced resource filters. The calendar collapsed system property is only available for new customers that installed Field Service Management with Xanadu or a later version. If you installed Field Service Management with Washington DC or an earlier version, then you must create the calendar collapsed system property (`sn_fsm_disp_wrkspc.calendarCollapsedBehavior`) and set it to true.

Database views

The agent filter configuration database view and the crew agent filter configuration database view contain a list of tables. By default, dispatchers can create advanced filters based off of username and user skill in the agent tab, or crew name and crew skill in the crew tab.

If you want dispatchers to be able to use more values to create advanced filters with, then you must indicate what values in the tables are available.

Note:

You access the database views by selecting Agent Filter Configuration or Crew Filter Configuration from the All menu.

The tables are different if you have assignment groups or territories configured. For a list of the tables that contain the values administrators must enable for dispatchers to use to create resource filters, see [Advanced resource filter tables](#)

Extending tables

The values in any tables related to users or crews that are part of your deployment can be extended into Dispatcher Workspace and used to create an advanced resource filter. The process is called Creating database views for reporting.

Warning:

You must be a professional developer and a service now administrator to set this up.

For more information, see [Working with database views for reporting](#).

Resource filter configuration

Administrators can create advanced resource filters for dispatchers using the values available in the [Advanced resource filter tables](#). When an administrator creates an advanced resource filter, the resource filter is available for all dispatchers to use in Dispatcher Workspace.

Configuration overview

The steps for setting up advanced resource filters are:

1. Properties installed with Field Service Management

Enable the advanced resource filters system property (sn_fsm_disp_wrkspc.dispatcher_workspace.show_advanced_resource_filter).

2. (Optional) Configure resource filter options

Select the values that are available for dispatchers to create advanced resource filters with.

3. (Optional) Create an advanced resource filter for dispatchers

Create an advanced resource filter for all dispatchers to use in Dispatcher Workspace.

4. Advanced Filtering in Dispatcher Workspace

Dispatchers can create and apply their own advanced filters.

Configure resource filter options

Administrators can configure more options for dispatchers to create advanced resource filters.

Before you begin

Role required: admin

About this task

By default, dispatchers can create advanced filters based off of username and user skill in the agent tab, or crew name and crew skill in the crew tab.

You can also extend any table related to users or crews and use the fields from those tables to create resource filters. You must enable the advanced resource filter system property before

you can configure advanced resource filters. For more information, see [Configuring advanced resource filters for Dispatcher Workspace](#).

Procedure

1. Choose one of the following:

- Navigate to **All > Field Service > Dispatching > Dispatcher Workspace Configuration > Agent Filter Configuration**.
- Navigate to **All > Field Service > Dispatching > Dispatcher Workspace Configuration > Crew Filter Configuration**.
- If you extended a table, navigate to **All > Field Service > Dispatching > Dispatcher Workspace Configuration** and then select the table you extended.

2. Select one of the tables.

For a list of tables, see [Advanced resource filter tables](#).

3. Select **New**.

4. Select the **Field** that dispatchers will be able to use as the new search value.

5. Select **Submit**.

Dispatchers can now create advanced resource filters using the value you chose in step 4.

Create an advanced resource filter for dispatchers

Create an advanced resource filter so all dispatchers can use the same filter in Dispatcher Workspace.

Before you begin

Role required: admin

About this task

When administrators create an advanced resource filter for dispatchers they show up in the Resource filter drop-down menu in Dispatcher Workspace. All advanced filters created by administrators show up alphabetically at the top of the resource filters list. Dispatcher created filters show below the list of administrator filters.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace Configuration > Resource Filter**.

2. Select **New**.

3. Fill in the fields in the form:

- Title: The name of the filter that will show in Dispatcher Workspace.
- Active: if the filter is active.

4. Select **Submit**.

5. Select the name of the filter you just created.

6. Select **New**.

7. Fill in the fields on the form:

- Table: Select either the `agent_filter_config_view` or the `crew_filter_config_view`.
- Filter: Add the conditions and clauses that will be used to filter the information in the table you selected.

8. Select **Submit**.

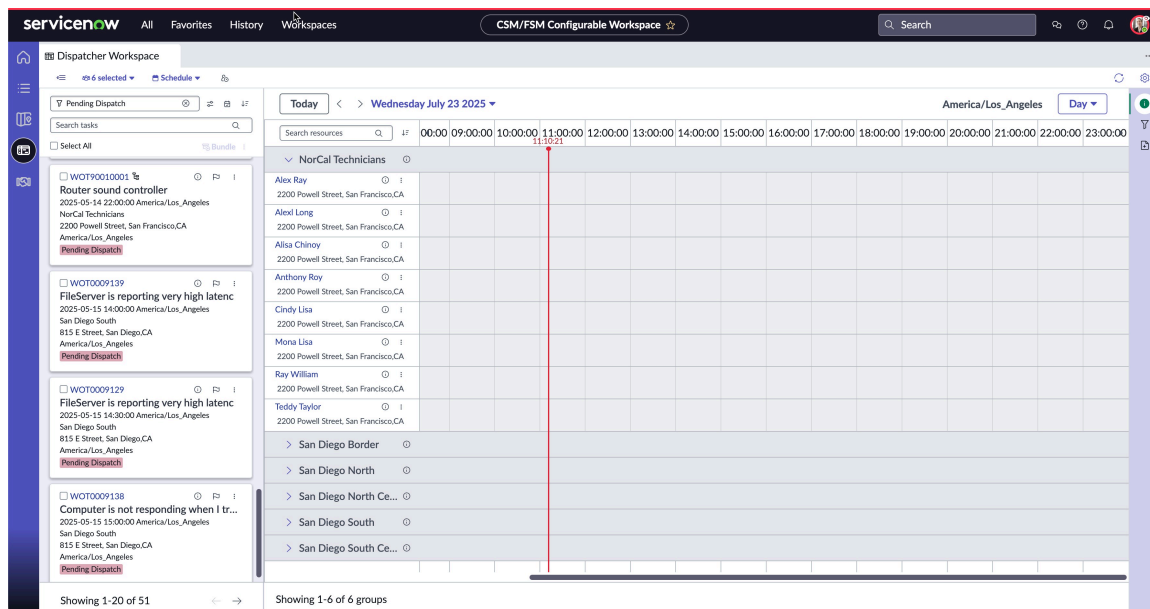
The filter is added to dispatcher workspace for dispatchers to use.

Configuring collapsed mode in Dispatcher Workspace

Collapsing assignment groups or territories allows Dispatcher Workspace to load faster. Administrators can disable the property to see all assignment groups or territories at once, but at the cost of higher load times.

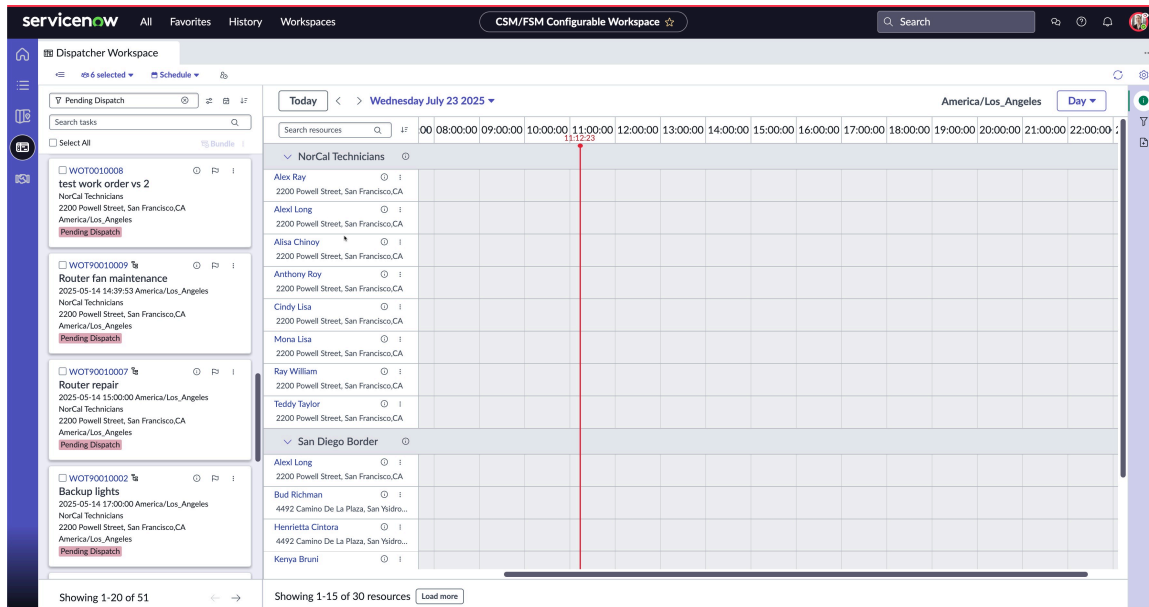
Collapsed mode

Starting with the Xanadu release, assignment groups and territories are collapsed by default. If this is the behavior that you want dispatchers to have, there is nothing to do. The first assignment group or territory on the calendar is expanded, but the assignment groups or territories below it are collapsed.



Non-collapsed mode

You can disable collapsed mode. This loads X number of agents that are part of your default assignment groups or territories. Where X equals the calendar page size, which controlled by this system property: `sn_fsm_disp_wrkspc.dispatcher_workspace.calendar_resources_page_size`. Dispatchers must then select Load more at the bottom of the calendar to see more agents and assignment groups or territories. To use non-collapsed mode and to see assignment groups and territories expanded, you must set the property `sn_fsm_disp_wrkspc.calendarCollapsedBehavior` to false.



Configuring Field Service Territory Planning Console

Field Service Territory Planning identifies the best matched territory for a work order task based on conditions that you set. You can then assign tasks to the individual agent or group best positioned to execute a service call based on the associated territories.

As a territory planner, you have the ability to set up and utilize territories within the Field Service Territory Planning Console by following these steps.

Configuration overview

The steps for setting up the Field Service Territory Planning Console are:

- [Configuring a map overlay](#)

Configure map overlays to view its corresponding data items in the territory map.

- [Configure territory fields to appear in Territory Planning console](#)

Customize the information displayed for territories in the Territory Planning console by configuring the contextual side panel fields.

- [Enable identification of relevant territories for a work order or work order task](#)

Create matching rules and conditions to enable identification of the most relevant territories for work orders or work order tasks.

For more information about activating and setting up Territory planning, see [Configuring Field Service Territory Planning](#).

Configuring a map overlay

Configure a map overlay to view its corresponding data items in the territory map.

Map overlays allow you to view data items in the context of a territory map. By setting up overlays, you can visualize data points as markers, shapes, or heatmaps on the map, providing valuable insights into spatial distribution.

Types of Map Overlays

Supports three types of map overlay data items:

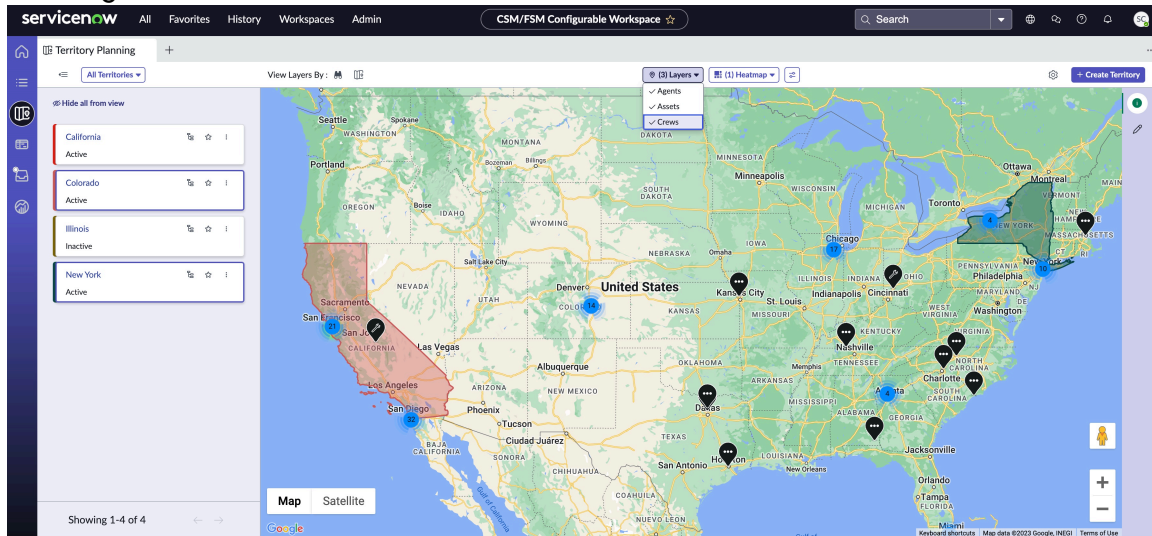
1. **Marker Layer:** Represents individual data items with distinct markers on the map. Marker layers are useful for pinpointing specific assets, locations, or points of interest.
2. **Shape Layer:** Allows the creation of custom shapes like polygons or lines on the map, which is valuable for defining boundaries or illustrating routes.
3. **Heatmap:** Provides a visual representation of data density or intensity, helping identify areas with higher concentrations.

Example: Create a marker layer overlay for agents

To create a marker layer overlay specifically for agents, do the following:

1. Add a map overlay data item for assets by linking the Agents database table.
2. Set up map marker icons to visually identify single and multiple agents on the map.
3. Create an info window field set to configure the fields displayed in the contextual side panel when clicking a map marker.
4. Create an overlay definition for agents by linking the data item, map marker icons, and info window field set.
5. Link the agents group and the agents overlay definition in the group usage table.

The following snapshot displays data related to multiple layers and heatmap in the Territory Planning console.



Viewing and filtering data

- Use the snapshot or map view to gain insights into relevant territory information, including agents, crews, and work order tasks across territories.
- Utilize data filter options to narrow down the displayed information based on viewport or territories.
 - **Viewport:** In this view, individual markers representing each agent are prominently shown, providing a comprehensive understanding of their spatial distribution.
 - **Territory:** Alternatively, the territory-based data view allows you to filter and display agents specifically associated with selected territories, providing a focused analysis of agent distribution within those areas.

Multiple overlay selection

You can manage and control multiple map overlays. Toggle between overlays to tailor your display and optimize your mapping workflow.

Configuration overview

The steps for configuring a map overlay are:

- [Create a marker layer overlay](#)

Create a marker layer overlay to specify the data items associated with the markers on a map. You can set up markers for assets, locations, or points of interest.

- [Create a shape layer overlay](#)

Create a shape layer to create custom shapes, such as polygons or lines, on a map. This type of overlay is useful for defining boundaries, illustrating routes, or highlighting specific geographic areas of interest.

- [Create a heatmap](#)

Create a heatmap to provide a visual representation of data density or intensity on a map using colors. A heatmap can help you identify areas with higher concentrations of data, highlight hotspots, and find patterns in data distribution.

- [Create map marker icons](#)

Create custom map marker icons for the marker type overlay to identify selected data item as either a single entity or multiple entities at the same location in the territory.

- [Create info window field set](#)

Create Info window field set to retrieve the field data from the database and display on a card when a marker is clicked on a map.

- [Create a map overlay definition](#)

Create a map overlay definition to link data items, info windows, and marker icons for clear visual representation on the map. This allows users to easily view and filter map data.

- [Link overlay group and overlay definition](#)

Establish a link between the overlay group and overlay definition in the group usage table to ensure the overlay definition is displayed in the Territory Planning console.

Create a marker layer overlay

Create a marker layer overlay to specify the data items associated with the markers on a map. You can set up markers for assets, locations, or points of interest.

Before you begin

Role required: map_overlay_action_admin

Procedure

1. Navigate to **All > Field Service > Map Overlay > Overlay Data items**.
2. In the **Map Overlay Data Items** page, select **New**.
3. On the form, fill in the fields.

Map Overlay Data Item

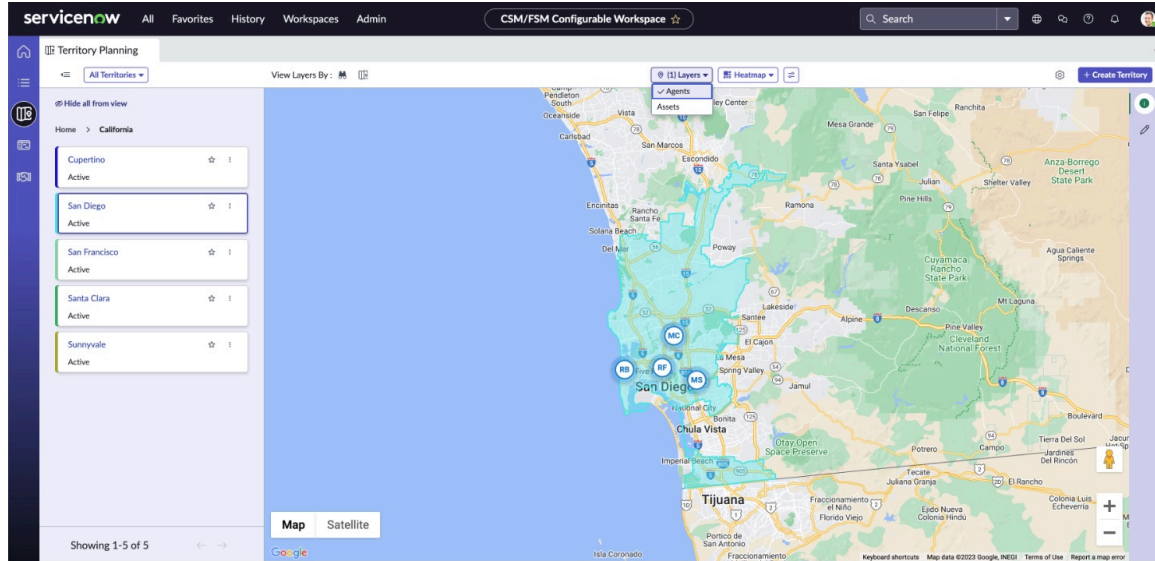
Fields	Description
Name	Name of the map overlay. For example, Assets
Application	Application scope of the marker layer.
Type	Marker Layer.
Table	Table from which you want to retrieve the data. For example, use the 'sys_user' table to fetch agents-related data.
Advanced	<p>Choose to create a marker layer either by using a customized script or filling in the predefined fields.</p> <ul style="list-style-type: none"> ○ To use customized script: Check this box to utilize your own script for the map overlay. This enables you to incorporate latitude, longitude, and other relevant data. ○ To enter details manually: Leave the check box unchecked to manually enter the condition, latitude, longitude, and address details.
Script	<p>Customize script that aligns with your requirements. The following output format serves as a reference for the structure of the data to be used in the script.</p> <pre>[{ "displayValue": "Gina Frost", "sysId": "01e7632ad1c30110f8773afeccd7bc3", "latitude": 37.4076716, "longitude": -121.9613086, "address": "Santa Clara" }, { "displayValue": "Taylor Key", "sysId": "01e7632ad1c30110f8773afeccd7bd0", "latitude": 37.3323182, "longitude": -121.9745714, "address": "Santa Clara" }]</pre>

Fields	Description
Enable location change on map	Select to enable marker location change in the map.
Edit script	<p>Customize script to update the location of the marker overlay when you drag map markers. This feature is designed for marker layers.</p> <p>For example, when you drag a map marker representing an agent into a new location, the script is executed and updates location in the agent's record.</p>
Condition	Condition to filter the data. For example, Set Active as True to fetch only active assets. This field appears when the Advanced field isn't selected.
Latitude	Specify latitude for the marker. For example, Location latitude of an agent. This field appears when the Advanced field isn't selected.
Longitude	Specify the longitude for the marker. For example, Location longitude of an agent. This field appears when the Advanced field isn't selected.
Address	Address information associated with the marker. For example, location of an agent. This field appears when the Advanced field isn't selected.

4. Add map marker icons to represent individual data items and visually indicate the underlying data points on the map.
For more information, see [Create map marker icons](#).
5. Configure an info window field set to determine the fields that you want to display in a card when a map marker icon is selected.
For more information, see [Create info window field set](#).
6. Create a map overlay definition, to link the overlay definition and data item.
This step establishes the connection between the visual representation, such as marker icons, and the associated data item. For more information, see [Create a map overlay definition](#).
7. Link the created map overlay definition and the chosen overlay group.
This linkage ensures that the overlay is appropriately organized and managed within the specified overlay group. For more information, see [Link overlay group and overlay definition](#).
The marker layer is created.

Result

The following snapshot illustrates an example of marker layer representing agents in San Diego territory. Select any agent's map marker to view agent details in the right contextual side panel.



Create a shape layer overlay

A shape layer overlay enables you to create custom shapes, such as polygons or lines, on a map. This type of overlay is useful for defining boundaries, illustrating routes, or highlighting specific geographic areas of interest.

Before you begin

Role required: map_overlay_action_admin

Procedure

1. Navigate to **All > Field Service > Map Overlay > Overlay Data items**.
2. In the **Map Overlay Data Items** page, select **New**.
3. On the form, fill in the fields.

Map Overlay Data Item

Fields	Description
Name	Name of the map overlay. For example, Linear segments
Application	Application scope of the shape layer.
Type	Shape Layer.
Table	Table from which you want to retrieve the data. For example, 'sn_eam_linear_segment'. Note: Linear segments are accessible only when you activate the Enterprise Asset Management (EAM) plugin.
Advanced	The check box is selected by default. Indicates a script is needed to include

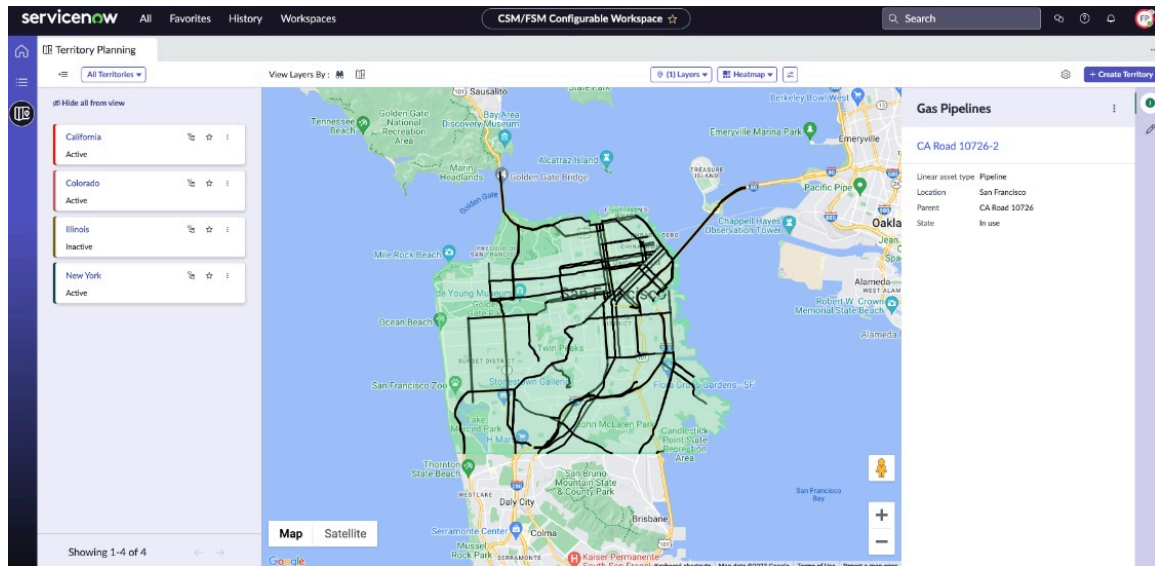
Fields	Description
	latitude, longitude, and other relevant data for the shape layer overlay.
Script	<p>Use the reference script to employ your own customized script for the map overlay. This enables you to incorporate latitude, longitude, and other relevant data.</p> <pre data-bbox="837 388 1380 1976"> [{ "displayValue": "Created 2023-07-10 03:01:37", "sysId": "1708508093c0b51025bcba774db a106e", "geoJson": "{ \"type\": \"FeatureCollection\", \"features\": [{ \"type\": \"Feature\", \"geometry\": { \"type\": \"Polygon\", \"coordinates\": [[[[110.41327466868162, -6.9465 24999819999], [110.41363733131 837, -6.946524999819999], [110. 41363733131837, -6.9468850001 8], [110.41327466868162, -6.946 88500018], [110.41327466868162 , -6.946524999819999]]] }, \"pro perties\": { \"styles\": { \"fillColor\": \"#FF0000\", \"fillOpacity\": 0 .4, \"strokeWeight\": 0, \"strok eColor\": \"#000000\" } } } }" }, { "displayValue": "Created 2023-07-10 03:06:44", "sysId": "1e3914c493c0b51025bcba774db a101d", "geoJson": "{ \"type\": \"FeatureCollection\", \"features\": [{ \"type\": \"Feature\", \"geometry\": { \"type\": \"Polygon\", \"coordinates\": [[[[110.41258766868162, -6.9465 24999819999], [110.41295033131 837, -6.946524999819999], [110. 41295033131837, -6.9468850001 8], [110.41258766868162, -6.946 88500018], [110.41258766868162 , -6.946524999819999]]] }, \"pro perties\": { \"styles\": </pre>

Fields	Description
	<pre>{\ "fillColor\ " : \ "#FFCOCB\ ", \ "fillOpacity\ " : 0.4, \ "strokeW eight\ " : 0, \ "strokeColor\ " : \ "#000000\ " } } }]"</pre>

4. Configure an info window field set to determine the fields that you want to display in a card when a map marker icon is selected.
For more information, see [Create info window field set](#).
5. Create a map overlay definition, you need to link the overlay definition and data item.
This step establishes the connection between the visual representation of the shape and the associated data item. For more information, see [Create a map overlay definition](#).
6. Link the created map overlay definition and the chosen overlay group.
This linkage ensures that the overlay is appropriately organized and managed within the specified overlay group. For more information, see [Link overlay group and overlay definition](#).
The shape layer is created.

Result

The following snapshot illustrates an example of a shape layer representing linear segments of the San Francisco territory. Select the linear segment to view details in the right contextual side panel.



Create a heatmap

Create a heatmap to provide a visual representation of data density or intensity on a map using colors. A heatmap can help you identify areas with higher concentrations of data, highlight hotspots, and find patterns in data distribution.

Before you begin

Role required: map_overlay_action_admin

Procedure

1. Navigate to **All > Field Service > Map Overlay > Overlay Data items**.
2. In the **Map Overlay Data Items** page, select **New**.

3. On the form, fill in the fields.

Map Overlay Data Item

Fields	Description
Name	Name of the map overlay. For example, work order tasks.
Application	Application scope of the heatmap.
Type	Select Heatmap .
Table	Specify the table from which you want to retrieve the data. For example, use 'wm_task' to fetch work order tasks.
Advanced	<p>There are two ways to create a heatmap: using a customized script or filling in the predefined fields.</p> <ul style="list-style-type: none"> To use customized script: Check this box to use your own script for the map overlay. This enables you to incorporate latitude, longitude, and other relevant data. To enter details manually: Leave the check box unchecked to enter the condition, latitude, longitude, and address details.
Script	<p>Customize script that aligns with your requirements. The following output format serves as a reference for the structure of the data to be used in the script.</p> <pre>[{ "weight": 4, (optional) "displayValue": "WOT0010017", "sysId": "0793bd6847c8b51046cd016c416d43c2", "latitude": 25.784294, "longitude": -80.322654 }]</pre>
Condition	Condition to filter the data. For example, Set Active as True to fetch only active work order tasks. This field appears when the Advanced field isn't selected.
Latitude	Specify latitude for heatmap. For example, Location latitude of the work order task. This field appears when the Advanced field isn't selected.
Longitude	Specify longitude for heatmap. For example, Location longitude of the work order task.

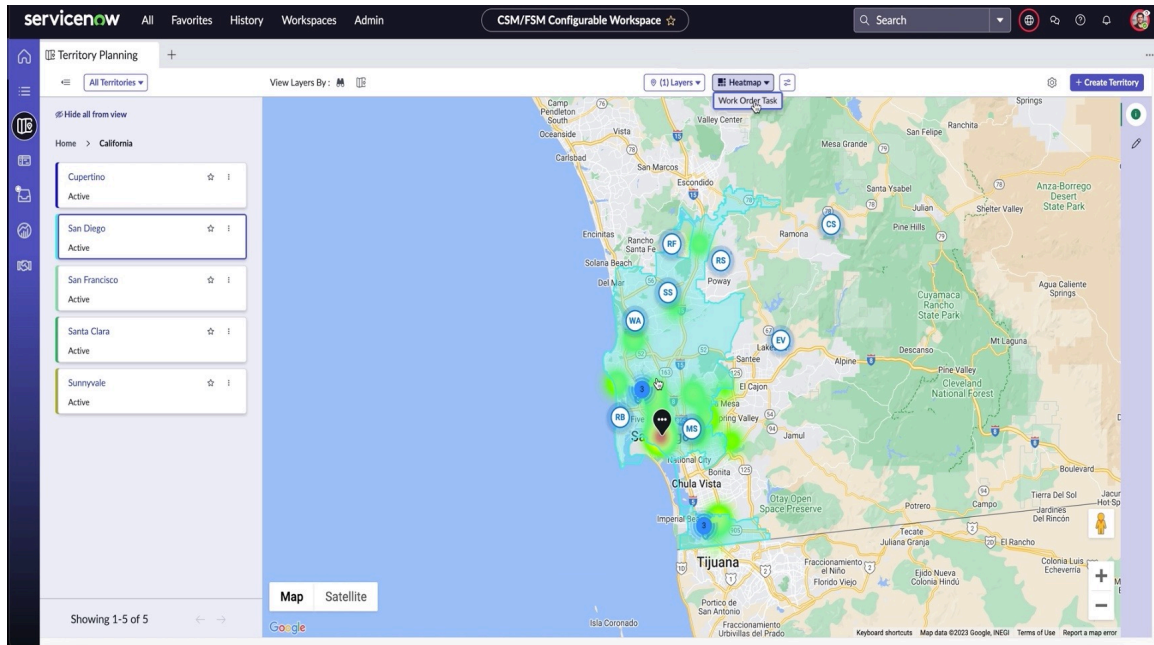
Fields	Description
	This field appears when the Advanced field isn't selected.
Weight	<p>Enter weight for heatmap. Determines the intensity of a data point on the heatmap. Assigning a higher weight to a data point makes it appear more prominently. This is useful for emphasizing specific data points or when adding a large amount of data at a single location for faster rendering.</p> <p>For example, you can have the priority field in the work order task to showcase the weight of a particular location.</p> <p>Note: This field appears only for the heatmap and only when the Advanced field isn't selected.</p>

4. **Optional:** Change the color gradient of the visualization using the Heatmap Gradient (sn_cmn_mo.HeatmapGradient) extension point.
For more information, see [Extension points in Field Service Management](#).
5. **Optional:** Change the opacity level and the radius that influence the data point in the heatmap.
For more information, see [Field Service Territory Planning console properties](#).
6. Create a map overlay definition, link the overlay definition and data item.
This step establishes the connection between the visual representation of the heatmap and the associated data item. For more information, see [Create a map overlay definition](#).
7. Link the created map overlay definition and the chosen overlay group.
This linkage ensures that the overlay is appropriately organized and managed within the specified overlay group. For more information, see [Link overlay group and overlay definition](#).
8. Select **Submit**.
The heatmap is created.

Result

The following example shows how agents as markers and a heatmap for work order tasks. Agents are marked on the map, and the heatmap shows task intensity. It helps you easily see agent locations and the density of work order tasks.

By using this combined approach, you can assess the spatial distribution of agents and gain insights into the workload based on the intensity of work order tasks. Select the map marker or heatmap to view the details in the right contextual side panel.



Create map marker icons

Create custom map marker icons for the marker type overlay.

Before you begin

Role required: map_overlay_action_admin

About this task

You can create custom map markers and use them in the marker layer map overlay definition. Map markers identify the selected data item as single entity or multiple entities at the same location (latitude, longitude) in the territory. For example, create map marker icons to represent single stockroom, multiple stockrooms or a combination of multiple stockrooms and agents at a particular location.

Procedure

1. Navigate to **All > System Definition > Tables > Map Overlay Icon**.
2. Click **Show Form**.
The **Map Overlay Icon** page appears.
3. On the form, fill in the fields.

Map Overlay Icon

Fields	Description
Name	Name of the map marker.
Application	Select Global to make the marker icon available globally.
Icon	Choose an appropriate icon for the map marker from the available options.
Display Level	If multiple marker icons share the same coordinates, the icon with the lowest display level value will appear on the map.

Fields	Description
Highlighted Icon	Select an icon to be displayed as a highlighted marker when the user clicks on it.

4. Select **Submit.**

The map marker icon is created.

What to do next

Once the map marker icons are created, you can link them to the overlay definition to identify the data items as single entities, multiple entities, or a combination at the same location on the map. For more information, see [Create a map overlay definition](#).

Create info window field set

Create Info window field set to retrieve the field data from the database and display on a card when a marker is clicked on a map.

Before you begin

Role required: map_overlay_action_admin

Procedure

1. Navigate to **All > System Definition > Tables > Application Field Set**
2. Click **Show Form**.
The **Application Field Set** page appears.
3. On the form, fill in the fields.

Application Field Set

Fields	Description
Name	Name of the field set. For example, Stockroom
Module	Field Service Management
Type	Table Fields
Table name	Name of the table. For example, alm_stockroom

4. Select **Submit.**

The Application Field Set is created.

5. Click **Show List.**

6. Add items to the application field set.

a. Select the application field set.
For example, Stockroom.

b. Click **New**.

c. Select the field name.
For example, location.

d. In the **Name** field, enter name for the selected field.

For example, Location.

- e. In the **Order** field, enter the order of the field to appear when you click the map marker in the map.

Result

The info window field set is created with the specified field. The values for the fields appear when you click a map marker in the map in the right contextual side panel.

What to do next

Link the map marker icons to the overlay definition. For more information, see [Create a map overlay definition](#).

Create a map overlay definition

Create a map overlay definition by linking the map overlay data items, info window field set, and marker icons (in case of marker overlay). The overlay definition appears in the map and is further used to view and filter the data on the map.

Before you begin

Role required: map_overlay_action_admin

Procedure

1. Navigate to **All > Field Service > Map Overlay > Overlay Definitions**.
2. In the **Map Overlay Definitions** page, click **New**.
3. On the form, fill in the fields.

Map Overlay Definition

Fields	Description
Name	Name of the map overlay definition. For example, Stockroom.
Application	Global
Active	Select to display the overlay definition in the map.
Data item	Contains meta data for overlays. For example, stockroom related data. For more information, see Create a marker layer overlay .
Single Icon Set	Map marker icon to identify the selected data item as a single entity. For example, if there is a single stockroom at a particular location, then the single icon set marker icon denotes there is only a single stockroom. Note: Appears only when the selected data item is of type marker layer.
Info Window Field Set	Select a field set or create a new field set by configuring the field values to appear in the right contextual panel when you click on

Fields	Description
	the overlay item. For more information, see Create info window field set . Note: Appears only when the selected data item is either of type marker or shape layer.
Colocated Icon Set	Map marker icon to identify the selected data item as multiple entities. For example, if there are multiple stockrooms at a particular location, then the colocated icon set marker appears to denote there are multiple stockrooms. Note: Appears only when the selected data item is of type marker.

4. Select **Submit.**

Result

The map overlay definition is created.

What to do next

[Link overlay group and overlay definition](#)

Link overlay group and overlay definition

Establish a link between the overlay group and overlay definition in the group usage table. This helps the overlay definition to appear in the Territory Planning console.

Before you begin

Role required: map_overlay_action_admin

About this task

You can link the overlay group and overlay definition to any one of the following overlay groups based on where you want to view the overlay definition.

- **FSM Territory Overlays by Territory** displays the overlay definition based on territory.
- **FSM Territory Overlays by Viewport** displays the overlay definition based on the view port.

Procedure

1. Navigate to **All > System Definition > Tables > Map Overlay Group Usage**.
2. Click **Show List**.
The **Map Overlay Group Usages** page appears.
3. Click **New**.
4. On the form, fill in the fields.

Map Overlay Data Item

Fields	Description
Group	Select the overlay group.
Application	Global
Overlay	Select the map overlay definition. For more information, see Create a map overlay definition .
Active	Select the check box to ensure the overlay definition appears in map.
Order	Order of the overlays to be displayed in map.

Result

The overlay definition appears either on the view port or territory based on the linked group usage.

Configure territory fields to appear in Territory Planning console

Customize the information displayed for territories in the Territory Planning console by configuring the contextual side panel fields. This enhances planning efficiency with personalized data, helping to take informed decisions.

Before you begin

Role required: wm_admin

About this task

You can configure both predefined and calculated fields for territories.

Procedure

1. Navigate to **All > app_cmn_field_set.list.do**.

The list of predefined application field sets appear.

2. To configure pre-defined fields, select **FSM Territory Form Fields**.

- a. Review the list of available fields such as parent assignment, territory, active, rank, color, and geography.
- b. To display a field in the Territory Planning console, set the **Default show** field to **true**.
- c. Organize the order in which the fields appear in the console by entering values in the **Order** column.

3. To configure calculated fields, select **FSM Territory Form Calculated Fields**.

- a. Navigate to the calculated fields section, which includes the number of children, qualification groups, dispatched groups, assignment groups, and KPI range.
- b. To display a field in the Territory Planning console, set the **Default show** field to **true**.
- c. Organize the order in which the fields appear in the console by entering values in the **Order** column.

Result

The configured fields appear in the Territory Planning console. To view the changes, log in as a territory planner and navigate to the console. For more information, see [View territory information in contextual side panel](#).

Enable identification of relevant territories for a work order or work order task

Enable identification of the most relevant territories for work orders or work order tasks by setting matching rules and conditions.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner

About this task

The Field Service Territory Planning configuration enables filtering of the most eligible territories for a work order or work order task. This configuration is stored in a matching rule that is based on the *Selection criteria* matching type.


The default configuration uses the *Field Service Territory Planning: Get eligible territories for Work Orders* and *Field Service Territory Planning: Get eligible territories for Work Order Tasks* matching rules, which use the following matching criteria:

- Match Territory from Task Location
- Filter based on Territory condition

You can also use matching rules for auto assignment if you create an assignment rule.

Create conditions to be able to filter and identify the most relevant territory for work orders or work order tasks.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. In the Territories panel, select a territory from the Browse All list.
3. Select the **Actions** icon () on the territory card and select **View Details**.
4. Select **More** and then select **Territory Conditions**.
5. Select **New**.
6. On the form, fill in the fields.

Territory Condition form

Field	Description
Territory	Name of the territory. This field is automatically set to the selected territory.
Territory Model Source	Name of the source for which you want to filter the territory, either a work order or work order task.
Table Name	Either the Work Order Task [wm_task] or Work Order [wm_order] table. This field is automatically set based on the value selected in the Territory Model Source field.

7. Add filter conditions.

- a. In the **Condition** field, select **Set conditions**.
- b. Create the condition.
For example, **[State] [is] [Pending Dispatch] AND [Active] [is] [true]**.
- c. **Optional:** Add an alternate OR condition by selecting **New condition set** and adding the conditions.
- d. Select **Set**.

8. Select **Save**.

Result

The conditions to help determine the best matched territories for a work order or work order task are set.

Setting up Field Service in CSM Agent Workspace

Activate Field Service in CSM Agent Workspace and set up roles for performing the tasks.

Important:

Starting with the Vancouver release, Legacy FSM Agent Workspace is being prepared for future deprecation. It will be hidden and no longer activated on new instances but will continue to be supported. The Field Service Management Configurable Workspace [com.snc.uib.fsm_agent_workspace] provides the latest experience for this functionality. For details, see the [Deprecation Process \[KB0867184\]](#) article in the Now Support Knowledge Base.

Activating Agent Workspace

Activate the following plugins:

- Customer Service with Field Service Management plugin [com.snc.csm_fsm_integration] to enable account, contact, partner, partner contact, consumer information from Customer Service to Field Service Management.
- Field Service Management plugin (com.snc.work_management) to provide support for scheduling and managing on-location work tasks.
- FSM Agent Workspace plugin (com.snc.agent_workspace.fsm) is activated when you enable the Field Service Management plugin (com.snc.work_management) or the Customer Service with Field Service Management plugin [com.snc.csm_fsm_integration].

Roles used in Agent Workspace for FSM

Agent Workspace roles

Role	Description	Contains Roles
Administrator [admin]	Update Field Service Management roles for Agent Workspace.	
Customer Service Agent [sn_customerservice_agent, sn_customerservice.consumer_agent]	<ul style="list-style-type: none"> • Create work orders from case. • [View] and apply template on a work order. 	<ul style="list-style-type: none"> • knowledge • sn_fsm_servicedesk_agent

Agent Workspace roles (continued)

Role	Description	Contains Roles
	<ul style="list-style-type: none"> • Move a work order from Draft state to Ready for Approval, Ready for Qualification, and Ready for Dispatch based on existing state flow and sm_config rules. • Book an appointment on a work order. 	<ul style="list-style-type: none"> • template_editor • chat_admin • sn_customerservice.deescalation_requester for only [sn_customerservice_agent] • sn_templated_snip.template_snippet_reader • sn_shn.editor • timecard_user for [sn_customerservice_agent] • sn_esm_agent
<p>Location agent [sn_customerservice.svc_location_agent]</p>	<p>Create and manage work orders created from cases for contacts and consumers in their service organization. In integration with Field Service Management:</p> <ul style="list-style-type: none"> • View and apply template on a work order. • Move a work order from Draft state to Ready for Approval, Ready for Qualification, and Ready for Dispatch based on existing state flow and sm_config rules. • Book an appointment on a work order. 	<ul style="list-style-type: none"> • sn_fsm_servicedesk_agent • sn_esm_location_agent
<p>Location consumer agent [sn_customerservice.svc_location_consumer_agent]</p>	<p>Create and manage work orders created from cases for contacts and consumers in their service organization. In integration with Field Service Management:</p> <ul style="list-style-type: none"> • View and apply template on a work order. • Move a work order from Draft state to Ready for Approval, Ready for Qualification, and Ready for Dispatch based on existing state flow and sm_config rules. • Book an appointment on a work order. 	<ul style="list-style-type: none"> • sn_fsm_servicedesk_agent • sn_esm_location_agent

Agent Workspace roles (continued)

Role	Description	Contains Roles
Location manager [sn_customerservice.svc_location_manager]	<p>Create and manage work orders created from cases for contacts and consumers that belong to the service organizations within their hierarchy. In integration with Field Service Management:</p> <ul style="list-style-type: none"> View and apply template on a work order. Move a work order from Draft state to Ready for Approval, Ready for Qualification, and Ready for Dispatch based on existing state flow and sm_config rules. Book an appointment on a work order. 	<ul style="list-style-type: none"> sn_fsm_servicedesk_agent sn_customerservice.svc_location_agent email_client_quick_message_author sn_templated_snip.template_snippet_writer sn_shn.admin approver_user sn_publications.approver sn_customerservice.svc_location_consumer
Relationship agent [sn_customerservice.relationship_agent]	<p>Restricts an agent's access to cases for the accounts, contacts, consumers, and households that they have a relationship with Relationship Manager and Account Manager.</p> <p>In integration with Field Service Management:</p> <ul style="list-style-type: none"> View and apply template on a work order. Move a work order from Draft state to Ready for Approval, Ready for Qualification, and Ready for Dispatch based on existing state flow and sm_config rules. Book an appointment on a work order. 	<ul style="list-style-type: none"> agent_workspace_user sn_fsm_servicedesk_agent snc_internal sn_shn.editor email_composer

Notes:

- When a case is created, the service organization on the case is the service organization of the user who creates the case.
- When a case is assigned to an agent, the service organization on the case is updated to the service organization of the assigned agent.

Configuring Workforce

Configure Workforce to view agent schedules, create personal events, and view tasks on a map.

The CSM/FSM Configurable Workspace includes Workforce, which is a centralized workspace for essential tools such as the Team Calendar, Map, and Agent Location History Map. This

integration allows for access and management of team schedules, geographical data, and historical agent movements, all from one location.

You can configure the team calendar to select which event types are visible. You can also enable users to switch between assignment group view and territory view. Additionally, you can improve the visibility of team members' schedules on a group calendar. By enabling team calendar visibility, they make these schedules accessible to both their own group and other groups.

To enable the territory view, you must [Configure Field Service Territory Planning](#). Managers need the `wm_manager` role to view schedules in Workforce. Additionally, each territory must be assigned a manager. For more information on assigning territories to managers, see [Managing territories and agents from Territory Planning console](#).

When Workforce Optimization for Field Service is active, you can appoint additional managers to your assignment groups to allow them access to Workforce. This ensures that more team leaders can effectively manage and optimize Workforce activities. For more information on adding additional managers, see [Assign additional managers to user groups when Workforce Optimization for Field Service is installed](#).

Workforce supports a high volume of agents and tasks by default. If your workforce management requires expanded capacity, you can contact support or submit a change control request to adjust the configuration.

Configuration overview

The steps for setting up Workforce are:

- [Configure event types to appear on the Team calendar in Workforce](#)

Customize the team calendar by configuring which event types are displayed.

- [Set your Workforce system properties](#)

Modify the Workforce configuration by setting system properties to enable visibility for both group and territory views.

- [Configure team calendar visibility for group members](#)

Increase Team calendar visibility to enable teams to better coordinate meetings, events, and tasks.

- [Configure territory view to allow users to see other members' schedules](#)

Allow users to switch between viewing assignment groups and territories within Workforce.

Configure event types to appear on the Team calendar in Workforce

Customize the team calendar by configuring which event types are displayed. This control ensures that only relevant events appear, tailored specifically to the team's needs.

Before you begin

Role required: `wm_admin`

About this task

[https://player.vimeo.com/video/1037879349?](https://player.vimeo.com/video/1037879349?h=96dd55b1b2&badge=0&autoplay=0&player_id=0&app_id=58479)

[h=96dd55b1b2&badge=0&autoplay=0&player_id=0&app_id=58479](https://player.vimeo.com/video/1037879349?h=96dd55b1b2&badge=0&autoplay=0&player_id=0&app_id=58479)

Procedure

1. Navigate to **All > Agent Schedule > Event Configuration**
2. Review the list of event types.
 - Event – Appointment
 - Event – Excluded
 - Event – Meeting
 - Event – Other
 - Event – Phone
 - Event – Time Off
 - Work Order Tasks
 - Work Schedule
3. Set the **Active** field for the event to **true** to display it on the Team calendar.
Users are able to toggle the selected events to display on the Team calendar in Workforce.

Related topics

[Managing agents and tasks from Workforce](#)

Workforce system properties

Modify the Workforce configuration by setting system properties to enable visibility for both group and territory views.

Workforce system properties

Property	Description
team_calendar.enable_for_grpmember	<p>Enables team calendar visibility.</p> <ul style="list-style-type: none"> • Type: true/false • Default: false • Location: All > System Properties > All Properties
sn_fsm_disp_wrkspc.workforce.enable_for_territorymember	<p>Enables territory technician view. Expands visibility to other members schedules.</p> <ul style="list-style-type: none"> • Type: true/false • Default: false • Location: All > System Properties > All Properties

Configure team calendar visibility for group members

Increase Team calendar visibility to enable teams to better coordinate meetings, events, and tasks.

Before you begin

The **team_calendar.enable_for_grpmember** system property must be enabled.

Role required: wm_admin

About this task

The Team calendar includes a list of the members in an assignment group and their current schedules. You have the ability to expand the visibility of team members' schedules, making it accessible to both their own group and other groups. Complete the following task to enable group visibility.

Procedure

1. Navigate to **All > User Administration > Groups**.

2. Select the **Type** field on the group record where you want to add calendar visibility.

If you don't see the **Type** field, click the gear icon to configure the form and add this field.

3. Add the group type.

The "sn_shift_planning.agent" role is required for an agent's schedule to be visible in the Team calendar in Workforce.

4. Select **Save**.

Related topics

[Workforce system properties](#)

[Managing agents and tasks from Workforce](#)

Configure territory view to allow users to see other members' schedules

Allow users to switch between viewing assignment groups and territories within Workforce.

Before you begin

An administrator must [Configure Field Service Territory Planning](#).

Role required: wm_admin

About this task

Enable territory view by setting the technician visibility type to allow Workforce users to see other members' schedules in the territory view.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory**.

2. Select the **Technician visibility type** field on the group record where you want to add territory visibility.

If you don't see the **Type** field, click the gear icon to configure the form and add this field.

3. Choose the visibility type.

4. Select **Save**.

Related topics

[Configuring Field Service Territory Planning](#)

[Workforce system properties](#)

[Managing agents and tasks from Workforce](#)

Setting up a Field Service scheduling method

In Field Service Management, a scheduling method is the process used to assign tasks to field technicians. As an administrator, you can choose the scheduling method that best meets your organization's needs.

Configuration overview

1. Choose and configure a scheduling method. Refer the following table to understand each scheduling method.

Scheduling methods

Scheduling Method	Key Features
Schedule Optimization	<p>Schedule Optimization aims for global efficiency by minimizing driving time, balancing workloads, etc. Proactive and holistic policy-based engine that takes a snapshot of all assigned and pending tasks across all agents, analyzing multiple possibilities for task assignment. It runs as often as every 15 minutes, or can be triggered on demand from the Dispatcher Workspace.</p> <p>Considers all assigned and pending tasks across all agents, analyzing multiple possibilities for task assignment.</p> <p>You can also use Intraday Optimization to re-optimize schedules in real-time based on changing conditions. Useful when tasks are canceled, delayed, or new tasks come in. For example: a cable service provider deals with last-minute cancellations and new installations.</p>
Dynamic Scheduling	<p>Dynamic Scheduling assigns tasks as they come in, checking agent schedules for availability. Examines each incoming task individually. If there's no free time, it swaps out less important tasks. It's a quick, task-by-task approach.</p> <p>Dynamic Scheduling can be set to run automatically at an interval or manually using the Auto Assign option. It works based on set criteria like skills and location. It's great for routine tasks and can adjust when things change, like when a tech is unavailable due to vacation or illness.</p>
Manual Scheduling	<p>Drag and drop method. Suitable for small teams with limited tasks but prone to errors</p>
Intelligent task recommendations	<p>Recommends tasks to fill gaps in agent's schedule. Maximizes agent productivity by utilizing available time.</p>

Scheduling Method	Key Features
	<p>When Intelligent Task Recommendation is invoked in Dispatcher Workspace, any free time that agents have between tasks and events is displayed as white space in the agent's calendar. It recommends the best available tasks to fill these gaps in the schedule. This feature is available to both dispatchers in the Dispatcher Workspace and to field agents in the ServiceNow® Agent Mobile Application</p>
<p>Route Optimization</p>	<p>Route Optimization concentrates solely on minimizing travel time for a single agent. It does not consider swapping tasks between agents. However, Schedule Optimization looks at the entire schedule and considers swapping tasks between agents to make everything more efficient.</p> <p>Route Optimization is agent-centric and aims to reduce travel time for individual agents.</p>

- Depending on the selected scheduling method, you can choose to set up the following additional scheduling and dispatching capabilities.

Additional scheduling and dispatching capabilities

<p>Capacity Management</p>	<p>Optimize workloads and prevent service outages through smart capacity rules. Capacity and Reservations Management allows Field Service managers to optimize workload distribution among agents and contractors. This is done through smart capacity rules, which prioritize tasks and prevent service unavailability due to overloading. For example, In the healthcare industry, a hospital can reserve 30% of their technicians' capacity for emergency equipment repairs, ensuring that crucial machinery like ventilators are always operational.</p>
<p>Crew Operations</p>	<p>Field Service Crew Operations streamlines the scheduling process by allowing the creation of dedicated crews of Field Service agents. Crews can be repeatedly assigned to recurring tasks for a defined time period, enhancing operational efficiency. The crew leader can easily document each member's contributions via a mobile application. For example, In the utilities sector, a recurring monthly task to inspect and maintain power lines can be assigned to the same crew. This</p>

	ensures familiarity with the equipment and terrain, improving the quality and efficiency of the work.
Equipment/Resource Scheduling	Offers features like equipment categorization, availability calendars, and mobile tracking for equipment status. This ensures that crews have the right tools for the job, and equipment usage is efficiently managed. For example, In the construction industry, project managers can assign specialized equipment like cranes or excavators to specific crews. They can also set up availability calendars to prevent double-booking, thereby maximizing equipment utilization.
Appointment Booking	With the appointment booking feature, customers can view available appointment windows, make a selection, and book a service appointment from the service portal. Agents and dispatchers can also book appointments on behalf of customers. Booking an appointment creates a work order and one or more work order tasks, depending on the type of service. Booked appointments can be rescheduled and canceled within time constraints identified in the configuration.
Contractor Management	Field Service Contractor Management facilitates the outsourcing of work order tasks by seamlessly integrating third-party contractor companies into your ServiceNow workflow. This feature allows for dynamic assignment based on a variety of criteria, including skill sets and coverage areas. Contractor managers can review, accept, or reject tasks through a dedicated Contractor Portal. For example, In retail, during high-traffic seasons like holidays, a store can outsource inventory management tasks to external groups. If internal teams are already at capacity, the system can automatically route tasks to available contractors, ensuring SLAs are consistently met.
Task Bundling	Dynamic Task Bundling allows administrators to create custom policies and rules that automatically group tasks, rising up the FSM efficiency. Automate task groupings through custom policies to increase efficiency. Ideal for large-scale operations for example, waste management, where task clustering can drive operational efficiency.
Configuring Multi-day scheduling	Field Service Multi-Day Task Scheduling enables dispatchers to schedule tasks that span multiple days, accommodating the complexities of tasks that can't be

	wrapped up in a single work shift. The system considers agent availability, work hours, and even breaks to allocate tasks efficiently. It supports both manual and dynamic scheduling methods, allowing for flexibility in task assignments.
Field Service Marketplace	Contractor Marketplace enables dispatchers to push tasks to marketplace when internal agents are unavailable.

- Optionally, set up one or more additional options to enhance your scheduling configuration tailored to optimize task allocation and agent assignments.

Additional configuration options

Calculate travel time and location tracking of agents	Set up properties to track field agents' locations in real-time to help estimate travel times accurately. Agents' locations are updated whenever they work on tasks, giving dispatchers current information. By default, updates happen every 5 minutes, but this can be changed. Dispatchers can manage these settings in Geolocation Properties. They can also check agent movements in Geolocation History. Agents need to enable location services and opt-in for tracking. Dispatchers can choose between Google Maps API, straight-line estimates, or Beans for travel time calculation. If Google Maps API is off, the system uses task estimates instead.
Business rules	Set up the business rules <i>Allow assignment override is updated</i> and <i>Populate Window End Based on SLA</i> , and <i>Sync up Delivery Time with WOT</i> .
Workforce Optimization for Field Service	There are key differences in how agent schedules are defined and managed if you are using Workforce Optimization for Field Service. For example, when Workforce Optimization for Field Service is installed and 'Shift Scheduling for FSM' is enabled in the field service configuration, then schedules and shifts are managed using Manager Workspace.
Soft Booking	Soft booking allows dispatchers to schedule tasks without immediately triggering notifications and downstream workflows. When a task is soft booked, it's kept in a scheduling state. You can use Update task state from Scheduled to Assigned property to checks if the task is close to its start time.

	Once it reaches that time, the task is moved from the scheduling state to the assignment state, and notifications are then sent out.
--	--

Related topics

[Scheduling and dispatching work order tasks to agents](#)

[Optimizing Scheduling and Dispatching operations](#)

Configuring Schedule Optimization

Schedule Optimization enables you to optimize task scheduling, auto-assign tasks, and adapt to changing conditions. By applying policies, you can create the best possible schedule that maximizes task assignment and minimizes travel time.

Configuration overview

The Schedule Optimization configuration comprises four main elements: Policies, Scheduling attributes, Batches, and Scopes. The workflow involves configuring policies and scheduling attributes, creating batches to execute optimizations, and scopes optimized by the appropriate method. There are additional configurations that will trigger optimization to run throughout the day as scheduling conditions change.

The steps to set up Schedule Optimization are:

1. Activate the Schedule Optimization plugin. For more information, see [Activate Schedule Optimization](#).
2. [Set the properties](#) of the schedule optimization engine to tailor its behavior and functionality to your organization's specific needs.
3. Create policies to determine how to optimize agent schedules based on defined objectives or constraints. For instance, if a company has 20 technicians with appointments in a city, you can configure a policy to minimize driving time. By running a batch the night before, the system evaluates all tasks and generate an optimized schedule that minimizes agents' driving time. For more information, see [Create a policy for Schedule Optimization](#).
4. Configure the scheduling attributes to create reusable sets of common optimization settings like the default travel estimate provider and task conditions to consider when optimization runs. For more information, see [Create a scheduling attribute for Schedule Optimization](#).
5. Create optimization batches with the desired schedules and settings. For more information, see [Create a batch for Schedule Optimization](#).
6. Create optimization scopes to associate batches with existing scheduling attribute configurations, optimizing either by assignment groups or territories. For more information, see [Create a scope for Schedule Optimization](#)
7. Schedule batches to run automatically to assign tasks to agents and optimize schedules.
8. Optionally, create intraday configurations to automatically update agents schedules in response to events, such as an agent running late.

Schedule Optimization based on territories

Consider the following points while implementing Schedule Optimization based on territories.

Plugin dependencies

Optimize tasks based on territories with Schedule Optimization when the Territory Planning plugin is installed.

- If the Territory Planning plugin isn't installed or the Territory Model is inactive, the optimization seamlessly continues relying on assignment groups.
- If both the Field Service Territory Planning and Schedule Optimization plugins are installed, but the Territory Model is inactive, tasks are optimized based on assignment groups. Keep territory-related batches inactive until the Territory Planning plugin is activated.
- If both the Territory Planning and Schedule Optimization plugins are installed and the Territory Model is active, tasks are exclusively optimized based on territories. You can create scopes specifically for territories.

Activation prerequisite

Before activating the Field Service Territory Model, ensure batches optimized by assignment groups are inactive, and batches optimized by territories are active.

Post-activation

After activating the Field Service Territory Model, tasks need territories selected for Schedule Optimization to assign them to agents.

Territory-Centric optimization

With both plugins active and the Field Service Territory Model enabled, tasks are exclusively optimized based on territories.

Intraday efficiency

Resolves complexities of agents handling multiple territories in a day, especially during multiple shifts.

Overlapping Territories management

In the Field Service Territory Model, territories can overlap either in geography or with shared agents. Machine learning-driven capabilities consider these overlaps for effective assignment and management in task optimization.

Agent start location

When utilizing the Field Service Territory Model, the agents' start locations can be temporarily adjusted to a different location, with a specified start and end date. This temporary start location is utilized when assigning tasks, ensuring that logistics are optimized based on the agent's temporarily set start location. If a temporary start location is not set, or after the specified end date, the agent's location will revert to their home location. Additionally, during the agent relocation process, you can customize attributes related to agent membership and availability, allowing for flexible and efficient management of resources. For more information, see [Move agents between territories in the Territory Planning console](#).

Schedule Optimization with Workforce Optimization for Field Service

Schedule Optimization considers an agent's schedule and events from the Workforce Optimization for Field Service application to auto-assign tasks only when the **Enable Shift Scheduling for FSM to Determine Availability** option is enabled. For more information, see [Global domain configurations](#) and [Activate Workforce Optimization for Field Service](#).

Schedule Optimization for Planned Crews

Use Schedule Optimization to optimize task assignments to planned crews. There are two types of crews: planned crews, which are pre-created, and dynamic crews, which are dynamically created as needed. Schedule optimization only supports planned crews. To ensure effective Schedule Optimization, the Field Service Crew Operations plugin must be active, planned crews

must be created in the system, and each planned crew should have a designated location and schedule.

Related topics

[Activate Schedule Optimization](#)

Activate Schedule Optimization

Activate the Schedule Optimization plugin (com.snc_schedule_optimization) for Field Service Management with the administrator role.

Before you begin

Role required: admin

- Schedule Optimization requires a separate subscription from the rest of the ServiceNow AI Platform.

To purchase a subscription, contact your ServiceNow account manager. When you purchase a subscription, certain plugins are activated automatically. If a plugin doesn't appear in the instance, submit a request via the Now Support Service Catalog.

- Schedule Optimization requires the following plugins. Ensure that these plugins are activated before you install Schedule Optimization.

Predictive Intelligence (com.glide.platform_ml)

Provides various capabilities and solution types for training the system to predict, recommend, and drive data outcomes.

Field Service Management (com.snc.work_management)

Adds a number of plugins related to agent scheduling and work order task management.

Map Integrations for Field Service (com.snc.app_fsm_map_integr)

Performs intelligent travel time estimates to allocate work order tasks to agents, taking into account both the agent's location and the task's location.

Role required: admin

About this task

The following items are installed with Schedule Optimization:

Tables installed

Table	Description
Optimization Scope snc_schedule_optim_optimization_scope	Defines the qualifiers (groups or territories), tasks, and policies to be used during optimization
Scope Qualifier snc_schedule_optim_scope_m2m_qualifier	Relates a group or territory to a scope
Optimization Batch snc_schedule_optim_batch	Defines the optimization schedule for one or more scope
Optimization Feature snc_schedule_optim_optimization_constraints	Defines the objectives and constraints to be used in optimization policies

Tables installed (continued)

Table	Description
	<p>Note: table is read only</p>
Policies snc_schedule_optim_policy	Container record for objectives and constraints that are used for optimization
Policy Configurations snc_schedule_optim_policy_configuration	A related list is table used to add objectives and constraints to a policy
Scheduling Attribute Configuration snc_schedule_optim_sched_attr_config	Defines common optimization settings to be used by intraday configurations or optimization batches and scopes
Intraday Configuration snc_schedule_optim_intraday_config	Defines the default scheduling attribute configuration, the default processing window and flow for intraday optimization
Intraday Qualifier snc_schedule_optim_intraday_m2m_qualifier	Relates a group or territory to an intraday configuration
Intraday Attribute Override snc_schedule_optim_intraday_m2m_sched_attr_config	Overrides the default scheduling attribute configuration or default processing window for a particular group or territory
Intraday Job Qualifier wm_intraday_job_m2m_qualifier	Relates a group or territory to an intraday job
On-Demand Optimization Applicable Policies snc_schedule_optim_attr_m2m_policy	Defines the alternate policies eligible for an on-demand optimization run for a particular scheduling attribute configuration

For more information, see [Configuring Schedule Optimization](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Schedule Optimization plugin (com.snc_schedule_optimization) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

What to do next

[Create a policy for Schedule Optimization](#)

Create a policy for Schedule Optimization

Create policies to promote factors like the travel time and an agent's availability. Policies determine how to optimize an agent's schedule based on defined objectives or constraints.

Before you begin

Role required: wm_admin

About this task

[https://player.vimeo.com/video/997810828?](https://player.vimeo.com/video/997810828?h=2f677d5cc1&badge=0&autoplay=0&player_id=0&app_id=58479)


[h=2f677d5cc1&badge=0&autoplay=0&player_id=0&app_id=58479](https://player.vimeo.com/video/997810828?h=2f677d5cc1&badge=0&autoplay=0&player_id=0&app_id=58479)


Policies help achieve your optimization goals by combining objectives and constraints. Understanding your goals lets you customize optimization strategies.

For instance, if you have 20 technicians working in a city, you can set a policy to minimize travel time. By running optimization before the day begins, tasks are organized efficiently, reducing commute time. You can adjust existing policies by adding objectives and constraints to prioritize tasks and specify criteria for task assignment groups. For more information on objectives and constraints, see [Optimization features used with Schedule Optimization](#).

To use capacity with Schedule Optimization, you must enable **Capacity** in the constraint. For more information, see [Optimization features used with Schedule Optimization](#)

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Policies**.
2. Select **New**.
3. On the policy record form, provide a name and description.
4. Select **Submit**.
5. Select the policy you created.
6. **Optional:** Add a constraint.
 - a. Select the **Constraint** tab.
 - b. Select **New**.
 - c. In the **Optimization feature** field, select the Lookup using list icon () and select the constraint to add.
 - d. Select **Submit**.
7. **Optional:** Add an objective.
 - a. Select the **Objective** tab.
 - b. Select **New**.

c. In the **Optimization feature** field, select the Lookup using list icon () and select the objective to add.

d. Select **Submit**.

8. Select **Update**.

Result

You have now created a schedule optimization policy.

What to do next

[Create a batch for Schedule Optimization.](#)

Add objectives to a policy

Add objectives to the default objectives in Schedule Optimization policies to achieve additional goals.

Before you begin

Role required: wm_admin

About this task

Objectives serve as the compass that guides task prioritization in Schedule Optimization. Objectives set the goals of a Schedule Optimization policy. Each objective is weighted and Schedule Optimization prioritizes higher-numbered weights. For default settings, apply a weight of 1, and for more important factors, such as Maximizing high-priority task assignments, apply a weight of 2. The following are the default and optional objectives in Schedule Optimization.

Default objectives

- **Maximize task assignment**- Focused on ensuring as many tasks as possible are scheduled. Adds as many tasks as possible to agent schedules to maximize productivity.
- **Minimize travel time**- Targeted at reducing agent travel time. Limits the travel time between tasks for all agents.

Note:

These objectives are default and cannot be removed from your policies.


Optional objectives

- **Maximize High-Priority Task Assignments:** Prioritizes urgent tasks.
- **Minimize Under/Over-Skilled Agent Assignments:** Matches task complexity with agent skill level.
- **Minimize number of shifts with tasks:** Limits the number of tasks per shift.
- **Minimize SLA Violations:** Keeps service delivery within agreed timeframes.
- **Minimize Overtime:** Caps agent work hours within standard time ranges.
- **Maximize Balance in Tasks & Work Hours:** Distributes tasks and hours evenly among agents.

Note:

Objectives are optional but act as levers, adjusting your optimization to better suit your needs. For example, if Minimize overtime is set as an objective, Schedule Optimization will try to assign tasks to agents during normal hours. If that's not possible, tasks will be assigned to agents even if it will require overtime. For a list of the objectives, see [Optimization features used with Schedule Optimization.](#)

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Policies.**
2. Select the policy.
3. Select the **Objective** tab.
4. Select **New**.
5. In the **Optimization Features** field, select the Lookup icon () and select the objective to add.
6. Select **Submit**.

Add constraints to a policy

Constraints are requirements for the tasks that Schedule Optimization are assigned to agents.

Before you begin


Role required: wm_admin

About this task

Constraints are added to policies and determine the criteria that need to be met for an assignment group to be assigned a task. For a list of the constraints, see [Optimization features used with Schedule Optimization](#).

Constraints are mandatory and tasks won't be assigned if the assignment group doesn't fit the constraint. They define the 'must-haves' for agents to even be considered for a task. Constraints are mandatory conditions embedded in policies. If an assignment group fails to meet a constraint, they're out of the running for that task. For example, if "Enable Mandatory Skills" is activated, only assignment groups with agents possessing the required skills will be considered for task assignments.

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Policies.**
2. Select the policy.
3. Select the **Constraint** tab.
4. Select **New**.
5. In the **Optimization Features** field, select the Lookup icon () and select the constraint to add.
6. Select **Submit**.

Configure the policy to assign preferred technicians to tasks

Add optimization features to the policy, enabling dispatchers to assign preferred Field Service agents to specific work order tasks, ensuring the right technician handles each task efficiently. Additionally, dispatchers can exclude agents who are not well-suited for certain tasks.


Before you begin

Role required: wm_admin

About this task

Dispatchers have the ability to designate preferred, secondary, or excluded technicians on the work order task record. To activate this capability, an admin must incorporate specific optimization features into the policy.

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Policies.**
2. Select the policy.
3. Select the **Objective** or **Constraint** tab.
4. Select **New**.
5. In the **Optimization Features** field, select the Lookup icon () and add the following objectives and constraints:
 - a. Maximize preferred agent assignment
 - b. Enable assignments only with preferred or secondary agents
 - c. Block excluded agents from assignment
6. Select **Submit**.

Configure the policy to enable dispatchers to prioritize work order tasks

Incorporate optimization features into the policy to allow dispatchers to prioritize work orders, establishing the importance of each task.


Before you begin

Role required: wm_admin

About this task

By completing this task, you are allowing dispatchers to add importance to a work order task. You must incorporate three specific optimization features into the relevant policy: Maximize higher value task assignments, Minimize task time penalties (fixed), and Minimize task time penalties (hourly). This allows Schedule Optimization to take these values and penalties into account during processing.

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Policies.**
2. Select the policy.
3. Select the **Objective** or **Constraint** tab.
4. Select **New**.
5. In the **Optimization Features** field, select the Lookup icon () and add the following objectives and constraints:
 - a. Maximize higher value task assignments
 - b. Minimize task time penalties (fixed)
 - c. Minimize task time penalties (hourly)
6. Select **Submit**.

Create a scheduling attribute for Schedule Optimization

Create the scheduling attributes to specify which tasks to optimize and define the rules to perform the optimization.

Before you begin

Role required: wm_admin

[Configuring Schedule Optimization](#) must be set up.

About this task

[https://player.vimeo.com/video/997813365?](https://player.vimeo.com/video/997813365?h=fe1148b620&badge=0&autoplay=0&player_id=0&app_id=58479)

[h=fe1148b620&badge=0&autoplay=0&player_id=0&app_id=58479](https://player.vimeo.com/video/997813365?h=fe1148b620&badge=0&autoplay=0&player_id=0&app_id=58479)

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Scheduling Attributes**.
2. Select **New**.
3. On the form, fill in the fields.
 - a. Provide a name.
 - b. Select the default policy.
 - c. Select a primary travel estimate configuration.
 - d. **Optional:** Select a secondary travel estimate provider.
If you do not set up a secondary travel estimate provider and your primary configuration is unavailable, optimization will use the default straight-line configuration. For more information, see [Setting up a travel estimate provider](#).
4. Select **Submit**.
5. Select the record you just created.
6. In the **Work Type Task Filters** tab, select **New** to choose the task conditions to be considered when optimization runs.
 - a. Provide a name for the task filter.
 - b. Select or create a **Work configuration**.
 - c. Use the **Optimization Targets** tab add one or more filter condition.
 - d. Select **Submit**.

Note:
The **Optimization Restricted** tab will be displayed after the task filter record is created. This read-only field shows the conditions of work order tasks that are excluded from the optimization run.
7. **Optional:** Enable dispatchers to run optimization for a group or territory from Dispatcher Workspace by adding a policy to the **On-demand applicable policies** related list.

Note:
Dispatcher can manually trigger optimization to run for different policies at any time. For example, adding a policy that allows overtime will enable dispatchers to run optimization if agents are running behind schedule.

- a. In the **On-demand applicable policies** related list, select **Edit**.
 - b. Add a policy.
 - c. Select **Submit**.
8. Select **Update**.

What to do next

[Create a batch for Schedule Optimization](#)

Setting up a travel estimate provider

Set up a travel estimate provider in Schedule Optimization for each of your technician groups to streamline and enhance the travel planning process.

Travel estimate providers

Efficient allocation of work order tasks depends on accurately estimating travel time, considering both the technician's location and the task's location. Schedule Optimization uses travel estimate providers, which calculate distances between technicians and task and are assigned by admins to groups. The two supported travel estimate providers are straight-line or Beans.ai.

- Straight-line: This default configuration serves as a backup when a primary configuration isn't available and a secondary configuration hasn't been selected. This provider can be modified but it can't be deleted.
- Beans.ai: This map provider provides more accurate travel time estimates. Locations that are deemed invalid through geocoding or aren't reachable by road are excluded from task assignments

For more information, see [Create a scheduling attribute for Schedule Optimization](#).

Map vendor call types

Property: *map_vendor_call_types property*

- Sync: Default value.
- Async: Changing the default value to async can improve performance and may result in more outbound requests.

For more information on properties, see [Schedule optimization properties](#).

Travel band modifiers

Travel band modifiers adjust travel times based on the time of day, such as during rush hour. You can add these modifiers to either straight-line or Beans.ai configurations. A multiplier is a number used in the configuration to adjust travel time based on expected traffic conditions. When traffic is expected to be heavier than usual, a multiplier greater than 1 increases the travel time. For example, a multiplier of 1.2 adds extra time to account for delays. When traffic is lighter, such as during off-peak hours, a multiplier less than 1 reduces the travel time. For instance, a multiplier of 0.8 shortens the estimated travel time to reflect faster travel.

Travel band details:

- Range: 30 minutes to four hours.
- Can't overlap.

- Each travel band must have a different start and end time.

Note:

For example, to increase travel time during rush hour to simulate traffic not capture by the baseline values, you could set a travel band for your straight-line configuration between noon and 15:00 Monday through Friday with a multiplier of 1.2.

Set up a connection and credential for Beans.ai travel estimate provider

Create a connection and credential record to use Beans.ai for your travel time estimates.

About this task

To integrate Beans.ai with, you must provide your Beans.ai credentials. Beans.ai operates under a bring your own license (BYOL) model, which means:

- You must have an active Beans.ai account.
- Obtain your credentials (API Key and Secret) directly from Beans.ai.
- Use the Create New Connection & Credential link.

Note:

For detailed steps on creating a Beans.ai account or retrieving your credentials, refer to Beans.ai's official documentation or contact their support team.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > IntegrationHub > Connection and Credentials > Connection and Credentials Aliases**
2. Select **Beans.ai**.
3. In the related links section, select **Create New Connection & Credential**.
4. Enter the connection and credential information.
5. Select **Create**.
6. **Optional:** Limit the number of location points per inquiry to Beans.ai
For more information, see [Schedule optimization properties](#).

What to do next

[Configure travel time estimates with Beans.ai](#).

Related topics

[Configuring Google Maps API keys](#)

Configure travel time estimates with Beans.ai

Use the Beans.ai, the map provider that Schedule Optimization supports for more accurate travel time estimates.

Before you begin

A connection and credential for Beans.ai must have been established. For more information, see [Set up a connection and credential for Beans.ai travel estimate provider](#).

Role required: wm_admin

Procedure

1. Navigate to **All > Map Integrations for Field Service > Travel Time Estimate Configuration > All**
2. Select **New**.

Note:

Beans.ai operates on a bring your own license (BYOL) licensing model. If Beans.ai isn't configured, travel estimates default to straight-line.

3. On the form, provide a name for the travel time estimate provider and an optional description.
4. In the **Select a travel estimate provider** field, select Beans.ai.
5. **Optional:** Ensure that the travel time estimate is calculated and updated continuously by selecting the **Enable real-time** check box.
6. Select **Submit**.
7. **Optional:** Adjust travel for specific times of day by adding travel band modifiers.

Note:

Travel bands can vary in duration, ranging from 30 minutes to 4 hours, and can't overlap.

- a. Select an existing Beans.ai record.
- b. Scroll down to the **Travel Band Modifiers** tab.
- c. Select **New**.
- d. On the form, fill in the fields.

Travel Band Modifier

Field	Description
Active	Option to activate the travel band configuration.
Days of week	The days of the week when the travel band modifier is active.
Start time	The beginning time of the travel band or time window during which the modifier applies.
End time	The ending time of the travel band or time window during which the modifier applies.
Multiplier	A numerical factor applied to the base travel time to increase travel time to adjust for predicted higher traffic or other conditions during the specified time range. (Optional) If the multiplier is greater than 1, it increases travel time. For example, a multiplier of 1.2 increases travel time by 120%.

Field	Description
	Use a multiplier less than 1 to decrease travel time for off-peak hours when travel is faster than normal. For example, a multiplier of 0.8 reduces travel time by 80%.
Use map provider time of day	(Optional) When selected, sends the travel band's day and time window to the map provider to return a travel time estimate based on historical traffic data for that period.

e. Select **Submit**.

f. Select **Update**.

Configure travel time estimates with latitude and longitude

Use the straight-line travel estimate provider in Schedule Optimization that provides built-in time and distance travel estimates based on latitude and longitude.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Map Integrations for Field Service > Travel Time Estimate Configuration > All**
2. Select **New** to create a new configuration.
3. On the form, provide a name for the travel time estimate provider and an optional description.
4. In the **Select a travel estimate provider** field, select Straight-line.
5. **Optional:** Update the speed limit for the region in the **General** tab.
The default speed is set to 25 mph.
6. **Optional:** Update the values in the **Multipliers** tab.

(Optional) Use multipliers to adjust the baseline straight-line travel time to help make the estimate more realistic by reflecting real-world conditions. The estimated travel time is multiplied by a value based on the time bracket it falls into.

Travel time	Multiplier	Description
Under 15 minutes	2	Increases short-trip estimates to be more realistic.
Between 15 and 60 minutes	1	The baseline estimate is unmodified.
Between 60 and 180 minutes	0.8	Slightly reduces longer trip times.
Over 180 minutes	0.5	Reduces very long trip times by half.

7. Select **Submit**.

8. **Optional:** Add travel band modifiers to adjust travel for specific times of day.

Note:

Travel bands can vary in duration, ranging from 30 minutes to 4 hours, and can't overlap.

- a. Select an existing Straight-line record.
- b. Scroll down and select the **Travel Band Modifiers** tab.
- c. Select **New**.
- d. On the form, fill in the fields.

Travel Band Modifier

Field	Description
Start time	The beginning time of the travel band or time window during which the modifier applies.
End time	The ending time of the travel band or time window during which the modifier applies.
Multiplier	A numerical factor applied to the base travel time to adjust for traffic or other conditions during the specified time range.
Days of week	The days of the week when the travel band modifier is active.
Active	Option to activate the travel band configuration.

e. Select **Submit**.

f. Select **Update**.

Create a scope for Schedule Optimization

A scope defines the scheduling attribute configuration, horizon offset, horizon range, and qualifiers for an optimization run. Scopes are required for batch optimization to run.

Before you begin

Role required: wm_admin

About this task

https://player.vimeo.com/video/997817784?h=e9afd32df0&badge=0&autoplay=0&player_id=0&app_id=58479

When the Territory Planning plugin is installed and the Territory Model is active, qualifiers are automatically set to territories and scopes for assignment groups are no longer possible. For more information, see .

Procedure

1. Navigate to **All > Schedule Optimization > Scopes**.
2. Select **New**.
3. Enter a name in the **Name** field.
4. Select a scheduling attribute configuration in the **Scheduling attribute** field.
5. **Optional:** Set the **Assignment horizon offset** to specify the delay after the batch run before task assignments begin.

Note:

The assignment horizon offset determines the window start value on the work order task record.

6. Set the **Assignment horizon range** to determine the span of time during which the tasks are assigned to the agents.
7. **Optional:** Enter a priority in the **Rank** field to determine scope priority when tasks or tasks are shared between scopes.
Lower numbers indicate a higher priority.
8. Right-click the menu bar and select **Save**.
9. In the **Qualifiers** related list, add assignment groups or territories to the scope.

Note:

Each assignment group must have a unique set of technicians. A technician cannot belong to more than one assignment group. Territory-based optimization supports overlapping technicians; assignment group-based optimization does not.

10. Select **Submit**.
A Schedule Optimization scope is created.

Create a batch for Schedule Optimization

Create an optimization batch to determine the interval at which optimization should run. Set the start date, batch start time and end time, and run frequency for the related scope.

Before you begin

Role required: `wm_admin`

About this task

https://player.vimeo.com/video/997819815?h=51104810f7&badge=0&autoplay=0&player_id=0&app_id=58479

Key considerations for optimizing your schedules:

- **Batch configuration:** You can configure up to 36 batches within a 24-hour period for optimizations. Each batch must last at least two hours, and there should be no more than three overlapping batches. For instance, you might have Batch 1 from midnight to 02:00, Batch 2 from 01:00 to 03:00, and Batch 3 from 02:00 to 04:00
- **Frequency settings:** Optimizations runs are supported on a continuous or fixed schedule. The default frequency for optimization runs is every seven days. However, you have the flexibility to choose from several options to adjust the run frequency. You can set optimizations to run once, every day, or at intervals of 30, 60, 90, 120, or 180 days, based on your specific needs.
- **Time relative scopes:** The start time of a scope is relative to the batch start time. If the batch starts today, but the scope start time is tomorrow, the optimization will focus on agents and tasks for the given scope for the next day.

- **Optimizing across territories:** When dealing with agents and tasks spanning multiple territories, the system intelligently consolidates all overlapping territories into a single set. This ensures a streamlined and effective scheduling process.
- **System data:** The system tracks task eligibility across territories and calculate associations between territories and their overlaps. This data helps in identifying agent and geographical overlaps, creating a comprehensive list of related territories.

Procedure


1. Navigate to **All > Schedule Optimization > Batch Optimization > Batches**.
2. Select **New**.
3. Enter a name in the **Name** field.
4. Set the start date, batch start time, and end time in the relevant fields.

i Note:

When you activate a job with a start date in the past, it creates two scheduled jobs: One to run immediately and another to run in the future. To avoid immediate processing, set the batch start date to a future date when you plan to activate the batch.

5. Determine how often a batch runs, and select a value for **Run Frequency**.
6. Select **Save**.
7. Add scopes to the batch.
 - a. To optimize tasks by assignment groups or territories, select **New** in the **Optimization Scopes** field.
 - b. Enter a name in the **Name** field.
 - c. Select a scheduling attribute configuration in the **Scheduling attribute** field.
 - d. Set the **Assignment horizon range** to determine the span of time during which the tasks are assigned to the agents.
 - e. Select **Activate**.
8. **Optional:** If the **Run Frequency** selected in step 5 is **Once**, you can choose **Schedule now** to run the batch immediately and observe its effects.
If the **Run Frequency** is set to more than **Once** you can conduct a test run by duplicating the batch configuration, setting the **Run Frequency** to **Once**, and selecting **Schedule Now**.

Result

At each defined interval, the batch triggers the Schedule Optimization process. Work order tasks are automatically assigned to the most suitable agent, and the **Assigned To** field is updated accordingly. To verify the next scheduled trigger time, see https://support.servicenow.com/kb?id=kb_article_view&sysparm_article=KB2142495 .

i Note:

Schedule Optimization does not detect changes you make to agents or tasks during an optimization run. The system considers changes to agents and tasks during the next optimization run.

You can [View Schedule Optimization logs](#) to gather insights from each optimization attempt.

Add or remove scopes from an optimization batch

Add scopes to optimization batches or remove a scope from a batch if the number of scopes in a batch becomes too large to manage.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Schedule Optimization > Batches**.
2. Select the optimization batch that you want to add or remove a scope from.
3. Select **Edit**.
4. Select the scope.
5. Either add the scope to or remove the scope from the optimization batch.
 - To add the scope, select **Add**.
 - To remove the scope, select **Remove**.
6. Select **Save**.

Optimizing technician schedules at set intervals throughout the day

Efficiently reassign tasks and maximize productivity by continuously running schedule optimization at selected intervals throughout the day.

About intra-day optimization

Intraday is an event-based mode of Schedule Optimization that runs on a set interval to optimize schedules in response to canceled tasks and other events such as an agent running late, an agent calling in sick, an agent using PTO, or a new high priority task being added.

Create a policy, a grouping of optimization features that run in combination, to define the rules for optimization. Policy objectives prioritize agent task assignment. Policy constraints determine the criteria that need to be met for an assignment group or territory to be assigned a task.

The basic intra-day flow runs every 60 minutes by default, with a minimum option of every 15 minutes. When a trigger condition is met, an intraday event is created. When the next intraday flow runs, an intra-day job is created for each of the groups or territories that have intraday events and those qualifiers are optimized. When optimization is complete and the tasks are updated, the intraday job shows a status of Assignment Complete.

Dispatchers can manually trigger optimization to run from the Dispatcher Workspace when the intraday on demand optimization configuration is enabled and an on demand applicable policy has been added to the scheduling attribute. See [Create a scheduling attribute for Schedule Optimization](#) to add an on demand applicable policy to the configuration.

Note that agent schedules can't be manually updated until intraday optimization is complete.


Activate intraday optimization

Activate Intraday optimization by activating the Field Service Management Scheduling Automations plugin (com.snc.sn_app_fsm_scheduling_flows) for Field Service Management. After the plugin is installed, navigate to flow designer to activate the relevant flows to trigger Intraday optimization to run throughout the day as scheduling conditions change.

Before you begin

Role required: wm_admin


Procedure

1. Navigate to **All > System Applications > All Available ApplicationsAll**.
2. Search for the Field Service Scheduling Automations plugin (com.snc.sn_app_fsm_scheduling_flows) by its name or ID.
3. Select **Install**.
4. Navigate to **All > Process Automation > Flow Designer**.
5. Duplicate the required flows.
 - a. Select the Agent time off created Field Service Management Scheduling Automations flow.
 - b. Copy the flow by selecting the More actions icon () in the top right and selecting **Copy flow**.
 - c. Enter a name for the copied flow or retain the default name, which appends the word "Copy" to the name of the flow.
 - d. In the **Application** field, select **Field Service Management Scheduling Automations**.
 - e. Select **Copy**.
A copy of the flow opens with the information you entered.
 - f. Select **Activate**.
 - g. Repeat these steps for the following event trigger flows: High priority work order task dispatched, Work order task canceled, and Work order task progressed.

Optimization doesn't consider priority unless the "Maximize assignment of higher priority tasks" constraint exists on the policy for the qualifier that triggered the event. For more information on adding constraints, see [Add constraints to a policy](#).
 - h. Repeat the steps to active the event trigger flow, Agent WFO time off.

Note:

Ensure the Shift Scheduling for Field Service plugin is activated to use the Agent WFO time off flow.

6. **Optional:** Duplicate the Schedule intraday jobs flow
 - a. Select the Schedule intraday jobs Field Service Management Schedule Optimization flow.
 - b. Copy the flow by selecting the More actions icon () in the top right and selecting **Copy flow**.
 - c. Enter a name for the copied flow or retain the default name, which appends the word "Copy" to the name of the flow.
 - d. In the **Application** field, select **Schedule Optimization**.
 - e. Select **Copy**.
A copy of the flow opens with the information you entered.

7. Optional: Make the Default record active.

- a. Navigate to **All > Schedule Optimization > Configuration**.
- b. On the form, select **Default**.
- c. On the form, select **Active**.
- d. In the **Intraday flow** field, select the renamed Schedule Optimization Schedule intraday jobs flow.

8.  Note:

You can activate additional intraday configurations for any of your groups or territories.

Select **Update**.

Configure intraday optimization

Continuously run schedule optimization at selected intervals throughout the day to efficiently reassign tasks and maximize productivity. Additionally, enable dispatchers to run optimization on demand.

Before you begin

Configure the scheduling attributes and activate intraday optimization. For more information see, [Create a scheduling attribute for Schedule Optimization](#) and [Activate intraday optimization](#).

Role required: wm_admin

About this task

[https://player.vimeo.com/video/997821462?](https://player.vimeo.com/video/997821462?h=68a634a123&badge=0&autoplay=0&player_id=0&app_id=58479)

[h=68a634a123&badge=0&autoplay=0&player_id=0&app_id=58479](https://player.vimeo.com/video/997821462?h=68a634a123&badge=0&autoplay=0&player_id=0&app_id=58479)

 Note:

This video demonstrates how to configure intraday optimization for a specific group or territory. To create a default intraday configuration for all groups and territories, see step 5.

You can configure the schedule optimization engine to automatically update assigned work order tasks throughout the day as scheduling conditions change. Common conditions that trigger intraday optimization to run are an agent running late, an agent calling in sick, an agent using PTO, a task being canceled, or a new high priority task being added.

You can also enable dispatchers to manually trigger optimization to run from the Dispatcher Workspace when the intraday on demand optimization configuration is enabled and an on demand applicable policy has been added to the scheduling attribute. See [Create a scheduling attribute for Schedule Optimization](#) to add an on-demand applicable policy to the configuration.

Procedure

1. Navigate to **All > Schedule Optimization > Intraday optimization > Configurations**.
2. Select **New**.
3. Provide a name for the configuration.
4. Set the default scheduling attribute configuration in the **Default scheduling attribute configuration** field.
To enable dispatchers to run optimization on demand from the Dispatcher Workspace, select a scheduling attribute that has an on-demand applicable policy added to the configuration.
5. **Optional:** Select the **Default** check box to create a global record for all groups and territories.

Note:

Only 1 default record can exist. If you are creating a new default record, deactivate the existing default record.

6. Select the **Active** check box.
7. In the **Schedule** tab, select a flow to trigger the intraday configuration and a default processing window.
8. Select **Submit**.
9. Select the Intraday configuration.
10. In the **Qualifiers** tab, add your groups or territories.

Note:

The **Qualifiers** tab is not available for the default record.

11. Select **Save**.
12. **Optional:** Enable dispatchers to run optimization for a group or territory from Dispatcher Workspace by setting **Enable on demand optimization** to true.
13. Select **Submit**.
14. **Optional:** Create an attribute override for a particular time frame to override the default scheduling attribute or processing window from the related intraday configuration for a particular group or territory.
 - a. Select the **Attribute overrides** tab
 - b. Select **New**.
 - c. Enter the applicable dates in the **Applies from** and **Applies to** fields.
 - d. Choose a scheduling attribute configuration and processing window.
 - e. Select **Submit**.

Configure on demand optimization

Enable dispatchers to respond to unexpected changes by configuring on demand intraday optimization, giving them the ability to run Schedule Optimization ad hoc directly from Dispatcher Workspace.

Before you begin

Activate and configure intraday optimization. For more information, see [Activate intraday optimization](#) and [Configure intraday optimization](#).

Role required: wm_admin

About this task

Dispatchers with the 'schedule_optimization_user' role can manually trigger optimization in the Dispatcher Workspace. This option is available when an on-demand applicable policy is added to the scheduling attribute and intraday on-demand optimization is enabled.

https://player.vimeo.com/video/1047600447?h=ff05630eac&badge=0&autoplay=0&player_id=0&app_id=58479

Procedure

1. Navigate to **All > Schedule Optimization > Administration > Scheduling Attributes**.
2. Select an existing **Scheduling attribute** and proceed to step 3 or select **New** to [Create a scheduling attribute for Schedule Optimization](#).
3. In the **On demand applicable policies** related list, select **Edit** to add a policy or select **New** to create a policy.

Dispatchers can change the policy before running optimization to adapt to current conditions. Maintaining multiple on-demand policies in scheduling attributes, such as policies enabling overtime or travel outside regular work hours, enables dispatchers to adjust policies as needed.

4. Select **Update**.
5. Navigate to **All > Schedule Optimization > Intraday optimization > Configurations**.
6. Select an existing **Intraday configuration** and proceed to step 7 or select **New** to [Configure intraday optimization](#).
7. In the **Qualifiers** tab, set **Enable on demand optimization** to true.
If the option to enable on-demand isn't visible, deselect the **Default** option.
8. Select **Save**.

Result

Intraday optimization can now be triggered on demand by dispatchers to adapt to changes as they happen throughout the day.

Related topics

[Run optimization for your groups or territories from Dispatcher Workspace](#)

Configuring log levels for detailed optimization analysis

Schedule Optimization logs provide detailed information about each run, allowing you to gather specific information as needed.

Related topics

[Scheduling Health dashboard](#)

Set the Schedule optimization logging level

Adjust the logging level settings to specify the detail included in the Schedule Optimization logs.

Before you begin

Role required: wm_admin

About this task

Each logging level option includes the information from the preceding levels. For example, selecting 'Info' will display 'Error' and 'Warning' logs as well, while 'Debug' will include logs from 'Error,' 'Warning,' and 'Info'.

Procedure

1. Navigate to **All > Field Service > Schedule Optimization > Administration > Properties**.
2. In the **Logging level** field, select the desired logging level.
3. Select **Save**.

View Schedule Optimization logs

View the Schedule Optimization logs to gather insights from each optimization attempt.

Before you begin

Role required: admin

[Set the Schedule optimization logging level.](#)

About this task

You can access system messages for all optimization runs that occur throughout the day.

Procedure

All > Field Service > Schedule Optimization > Logs.

View Schedule Optimization logs for batch or intraday runs

View the Schedule Optimization logs to gather insights from each batch or intraday optimization run.

Before you begin

Role required: admin

[Set the Schedule optimization logging level](#)

About this task

You can view system messages for both batch and intraday runs.

Procedure

1. Navigate to the module that matches the record type you want to view.
 - To view system messages for a **Batch** run, navigate to **All > Field Service > Schedule Optimization > Batch Optimization > Batches.**
 - To view system messages for an **Intraday** run, navigate to **All > Field Service > Schedule Optimization > Intraday Optimization > Jobs.**
2. Select the record that you want to view.
3. In the **Related Links** select **Show log entries.**
A batch run must be scheduled to generate log messages.

Example- Schedule Optimization validation messages

An example of Schedule Optimization validation messages.

- Example of an Error message type: Agent Missing Work Schedule – If a technician doesn't have a defined work schedule, they're excluded from the Optimization run.

<input type="checkbox"/>		2024-07-01 11:50:17	Error	[snc_schedule_optim_batch_fe5f1de9ebd60a101c1ef38acad0cd08] [ScheduleOptimizationAdminResponse] Technician: Teddy Taylor (17f8d601d7b3020058c92cf65e610318) is missing required field: Work Schedule.	sn_schedule_optim
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- Example of a Warning message type: Agent Missing Location – If a technician doesn't have a home location assigned, they're excluded from the Optimization run and aren't considered for task assignments.

		2024-07-01 12:08:55	Warning	[snc_schedule_optim_batch_fe5f1de9ebd60a101c1ef38acad0cd08] [ScheduleOptimizationAdminResponse] Technician: Teddy Taylor (17f8d601d7b3020058c92cf65e610318) is missing required field: home location.	sn_schedule_optim
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Example- Schedule Optimization

This example shows three different ways admins can configure the optimization engine to schedule tasks.

Admins can configure Schedule Optimization to run overnight in batches to schedule a larger number of tasks or throughout the day at selected intervals based on events. Admins can also enable dispatchers to initiate Schedule Optimization from Dispatcher Workspace by configuring on-demand optimization.

In this example, the organization is ensuring that agents complete as many tasks as they can during their shift without spending a lot of time traveling between tasks. A policy is configured to maximize assignments and minimize travel time. On-demand optimization is enabled for the dispatchers who are assigned to this group of agents.

Admin Core Configurations for Schedule Optimization

Schedule Optimization Properties

Field	Value
Qualifier type for Schedule Optimization	Assignment Group
Number of seconds used for task scheduling resolution	1
Maximum number of location points allowed in a map provider call	300

Policies

Field	Value
Name	Maximum Assignments
Active	true
Constraints	Default values
Overall objectives	Maximize travel time (weight 1) Maximize task assignments (weight 1) Maximize assignments to earlier shifts (weight 1)

Scheduling Attributes

Field	Value
Name	West coast config
Active	True
Travel estimate provider	Beans.ai
Default policy	Maximum Assignments
Straight line estimate config	West Coast

Scheduling Attributes (continued)

Field	Value
Tasks	State is one of: Pending dispatch or Scheduled
On Demand applicable policy	West Coast Dispatcher

Batch Optimization Configurations

Batch

Field	Value
Name	West Coast weekly
Schedule start date	2023-12-01
Run frequency	Every 7 days
Batch start time	22:00
Batch end time	3:00

Scope

Field	Value
Name	West Coast-Next 7 days
Active	True
Scheduling attribute configuration	West Coast config
Rank	1
Assignment horizon offset	00
Assignment horizon range	Days 7
Optimization Batch	West Coast weekly
Start date	2023-12-01
Batch start time	22:00
Batch end time	3:00
Assignment group	San Diego North

Note:

Select schedule now when the form is complete

Intraday Optimization Configurations

Intraday Configurations

Field	Value
Name	West Coast

Intraday Configurations (continued)

Field	Value
Active	True
Default scheduling attribute configuration	West Coast config
Default	False
Flow	Schedule intraday jobs (default)
Default processing window	Workday 9:00-5:00
Assignment group	San Diego South - Enable On Demand = True San Diego North - Enable On Demand = True

On-demand Optimization configurations

On-demand values in Scheduling Attributes configuration

Field	Value
On Demand applicable policy	West Coast Dispatcher

On-demand values in Intraday configurations

Field	Value
Assignment group	San Diego South - Enable On Demand = True San Diego North - Enable On Demand = True

Configuring Dynamic Scheduling

Configure dynamic scheduling to let dispatchers to easily assign, change, or cancel work tasks. Optimize work order task assignments and streamline field service operations by setting up dynamic scheduling according to your organization's requirements.

Dynamic scheduling enables dispatchers to auto assign tasks and adapt to changing conditions, as well as needing to focus only on exception cases. Using this feature, you can:

- Select a set of tasks for scheduling.
- Prioritize the tasks in the set based on ordering rules (for example, assign P1 tasks first).
- Use ordering rules and unassignment constraints to unassign previously assigned tasks to allow the assignment of higher priority tasks.
- Use selection criteria such as agent skills and travel time to select agents.
- Reassign tasks for agent time off.

Configuration overview

The steps to set up Dynamic Scheduling are:

1. **Activate dynamic scheduling:** Activate the Dynamic Scheduling plugin (com.snc.dynamic_scheduling) to enable the dynamic scheduling functionality in your system.
2. **Learn Dynamic Scheduling process engine:** Dynamic Scheduling optimizes and assign work orders to field service agents in real-time. It involves continuously monitoring the status of tasks and available agents and making intelligent decisions to ensure that tasks are assigned to the most appropriate agent at the most appropriate time.
3. **Roles and personas required for Dynamic Scheduling:** Manage dynamic scheduling process with administrators, dispatchers, and field service agents.
4. **Set up agent schedules for dynamic scheduling:** Set up agent schedules so that dynamic scheduling systematically ensures optimal task allocation.
5. **Set up Dynamic Scheduling as scheduling mechanism:** Select dynamic scheduling as the preferred task assignment method. This ensures that tasks are automatically assigned to field agents based on predefined criteria and rules.
6. **Review system properties and components for Dynamic Scheduling:** Review the properties and other installed components related to dynamic scheduling. Customize the settings to align with your organization's specific requirements and business processes.
7. **Configure dynamic scheduling:** Create Dynamic scheduling such as task filter, task ordering rule, and unassignment criteria to ensure tasks are allocated to agents with the right expertise who are nearby. This optimizes agent utilization and guarantees that assignments are handled by the most qualified individuals.
8. **Create a task filter for dynamic scheduling:** Define criteria to select eligible tasks for dynamic scheduling. Factors like task types, priorities, and attributes determine task eligibility. Task filters help focus on specific tasks for efficient scheduling.
9. **Create a task ordering rule:** Create rules to determine the order of task assignments from the selected set of tasks. For instance, designate Priority 1 tasks as the top priority, ensuring swift attention to critical work. These rules enhance task assignments by aligning them with organizational priorities.
10. **Set task unassignment rules for flexibility:** Create unassignment rules to make task assignments more flexible. This guarantees that service remains uninterrupted by either unassigning or reassigning tasks. It ensures that all tasks are attended to even if someone is absent. For example, if a more important task comes up, you can unassign less critical ones to make room for it. This optimizes resource use and ensures high-priority tasks get the attention they need.
11. Validate configuration to identify any potential issues or misconfiguration that may impact the performance of dynamic scheduling.
12. Optionally, you can also use the advanced configuration options for dynamic scheduling include assigning the same agent to all tasks, priority assignment for critical high-priority work orders, customer preferences for technicians or exclusions, proximity, and more.

Dynamic Scheduling for Planned Crews

Use Dynamic Scheduling to optimize task assignments to planned crews. There are two types of crews: planned crews, which are pre-created, and dynamic crews, which are dynamically created as needed. Dynamic Scheduling supports both planned crews and dynamic crews. To ensure task assignment to crews, the Field Service Crew Operations plugin must be active, planned crews must be created in the system, and each planned crew should have a designated location and schedule.

Related topics

[Assigning work order tasks to agents using dynamic scheduling](#)

[Dynamic scheduling](#)

Activate dynamic scheduling

Activate the dynamic scheduling feature by activating the Field Service Management plugin (com.snc.work_management).

Before you begin

Role required: admin

About this task

The Field Service Management plugin activates the Dynamic Scheduling plugin (com.snc.dynamic_scheduling) and adds the following module to the Field Service menu in the application navigator: **Field Service > Administration > Dynamic Scheduling Configuration**.

The following tables are installed with dynamic scheduling:

Tables installed with Dynamic Scheduling

Table	Description
Constraint [scheduling_constraint]	Stores the unassignment constraints for the dynamic scheduling feature.
Dynamic Scheduling Configuration [dynamic_scheduling_config]	Stores the configurations for the dynamic scheduling feature. Configurations include the selected task table, task filters, task ordering rules, and task unassignment constraints.
Task Filter [dynamic_schedule_task_filter]	Stores the task filters for a dynamic scheduling configuration. Filters identify a list of tasks to be assigned using dynamic scheduling.
Task Ordering Rule [task_ordering_rule]	Stores the task ordering rules for a dynamic scheduling configuration. Ordering rules prioritize the list of tasks identified by the task filters.
Un-Assignment Constraint [unassignment_rule]	Stores the task unassignment constraints for a dynamic scheduling configuration. Constraints prevent a task from being unassigned even if it is of lower importance based on the task ordering rules.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the plugin using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.
3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Learn Dynamic scheduling process engine

Dynamic scheduling streamlines the allocation of work orders and tasks to field service agents in real-time. This intricate process ensures that each task is matched with the most appropriate agent at the most suitable moment, thoughtfully considering a range of variables, including agent availability, location, skills, and workload.

The following are the key steps involved in the dynamic scheduling process:

Task Identification

The process commences by identifying the list of pending tasks awaiting dispatch. These tasks can be from customer requests, service agreements, or maintenance schedules. Key task attributes, such as dependencies, service level agreements, and customer preferences, are pivotal in determining the optimal time for task completion.

Note:

Work order tasks that are schedule locked are excluded from the dynamic scheduling process.

Initiate the scheduling process

Dynamic scheduling can be triggered either manually by a dispatcher or automatically by the system.

1. When manually triggered, dispatchers select multiple tasks in the dispatch queue and use the Auto-Assign feature to initiate the dynamic scheduling process.
2. Automatic triggering occurs when the system continuously monitors task and agent statuses. If predefined filter conditions are met or specific intervals are reached, the dynamic scheduling process is automatically initiated.

Agent task assignments

Once activated, the system identifies potential work groups capable of executing the tasks. It then intelligently optimizes the assignment of tasks to agents based on factors like agent availability, location, skills, and workload. The aim is to pair each task with the most suitable agent.

Agent Recommendations

The system generates agent recommendations for each task, considering attributes such as agent skills, location, and availability. These suggestions are derived from an optimization algorithm designed to match tasks with the most suitable agents. The recommendations are presented to the dispatcher for confirmation. The dispatcher reviews these recommendations and may factor in additional considerations before finalizing the assignments. This step ensures that tasks are assigned to the most fitting agents, thereby optimizing the overall efficiency of the dynamic scheduling process.

Dispatcher confirmation

The dispatcher confirms the task assignments based on the recommendations. If auto assignment is disabled, the output of the dynamic scheduling process is usually presented to the dispatcher for confirmation and approval before tasks are assigned. The dispatcher may consider additional factors, specific to the task requirements, urgency, or customer preferences, before confirming the assignments.

Task start times and updates

This stage involves scheduling the start times of tasks based on their urgency, dependencies, and other relevant criteria. As tasks progress, the system continuously updates task statuses, agent availability, and real-time data changes.

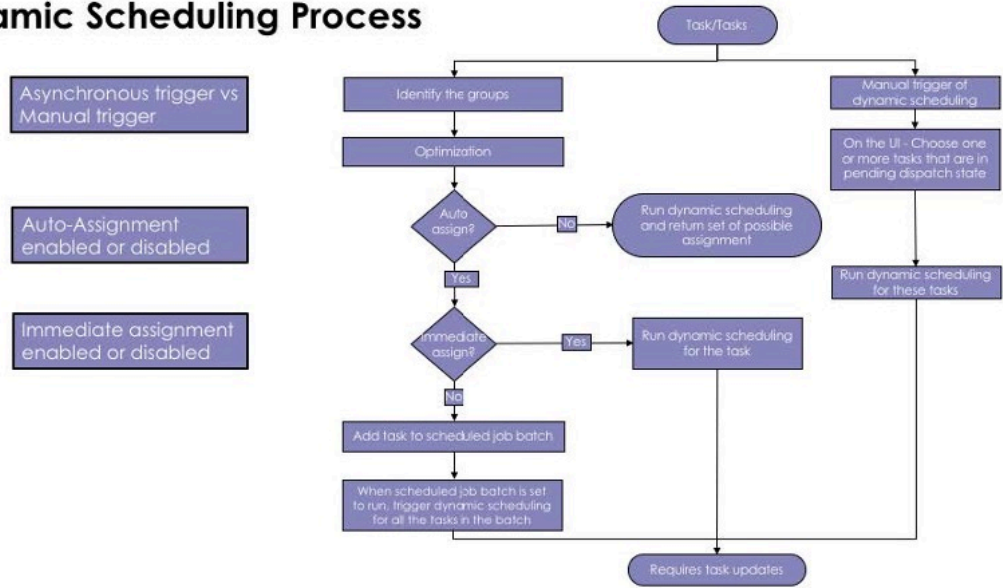
Unassignment and Reassignment

In situations where there are changes in agent availability or task priorities, the system has the capability to unassign or reassign tasks to ensure efficient resource allocation. This becomes especially relevant during an agent's time off or when higher-priority tasks need attention.

Dynamic Scheduling process flow

The following is the process flow diagram for Dynamic

Dynamic Scheduling Process



Scheduling.

Related topics

[Roles and personas required for Dynamic Scheduling](#)

Roles and personas required for Dynamic Scheduling

Key responsibilities of individuals involved in optimizing task assignments and resource management.

The following personas and roles can implement and control access to dynamic scheduling, manage resources, and complete work order tasks.

Role	Responsibility
Field Service administrators [wm_admin]	Field Service administrators are tasked with configuring and overseeing the dynamic scheduling process to align with the specific

Role	Responsibility
	requirements of the organization. Creates task filters and ordering rules, which define how and when tasks are assigned and unassigned.
Dispatchers [wm_dispatcher]	Dispatchers take on the responsibility of manually assigning tasks, particularly when there's a need to accommodate higher-priority tasks as they arise. Dispatchers can also utilize dynamic scheduling to enhance task assignments by selecting multiple tasks and leveraging its capabilities to optimize these assignments.
Field Agents [wm_agent]	Field Service agents, often referred to as technicians, are the individuals on the ground who execute work at task locations and report their status. They are an essential part of the dynamic scheduling process as they execute assigned tasks and provide real-time updates on task progress.

Related topics

[Set up Dynamic Scheduling as scheduling mechanism](#)

Set up agent schedules for dynamic scheduling

Dynamic scheduling uses Field Service agent schedules to determine work order tasks to assign to agents. There's an order in which dynamic scheduling checks agent schedules to see if agents are available.

The first place that dynamic scheduling checks for agent schedules is in the work schedule of an agent. For more information, see [Create a work schedule for agents](#). If there's a work schedule available, then that is what dynamic scheduling uses. If no work schedule exists, then dynamic scheduling checks the second place.

The second place that dynamic scheduling checks for an agent schedule are in the Default Agent Work Schedule entry on the WOT Child Dynamic Scheduling Config Page. WOT Child Dynamic Scheduling Config Page is part of Dynamic Scheduling Configuration.

To use this value as a schedule for agents:

1. First, you must turn on the Allow Dynamic Scheduling to only use work schedule/WFO system property. For more information on turning on the Allow Dynamic Scheduling to only use work schedule/WFO system property, see: [Dynamic scheduling system properties](#).
2. Then, you must verify there's a value for the Default Agent Work Schedule. If there's no default agent work schedule, then you must add one. For more information on Adding a value to the Default Agent Work Schedule, see: [Add a default agent work schedule](#).

Set up Dynamic Scheduling as scheduling mechanism

Select dynamic scheduling to automatically schedule and dispatch work order tasks.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Administration > Configuration**.
2. Click the **Assignment** tab.
3. In the **Assignment method for tasks** field, select **using dynamic scheduling**.
4. Click **Save**.

Result

Tasks are assigned automatically based on the dynamic scheduling configuration.

What to do next

Review system properties and components installed with Dynamic Scheduling. For more information, see [Dynamic scheduling system properties](#).

Dynamic scheduling system properties

Set up properties to customize the behavior and functionality of the dynamic scheduling process according to your organization's needs.

The following properties allow you to control aspects such as the frequency of scheduling, automatic assignment, travel time calculations, and optimization iterations. Adjusting these properties helps optimize task assignments, improve efficiency, and align the dynamic scheduling process with your specific requirements.

Navigate to **All > Field Service > Dynamic Scheduling Administration > Properties**.

System properties for Dynamic scheduling

Property label	Property name	Description
Allow dispatchers to manually double-book agents	work.management.allow.doublebooking.dynamicscheduling	Allows dispatchers to double-book agents manually even when dynamic scheduling is enabled <ul style="list-style-type: none"> • Type: true/false • Default value: false
Property to ignore calculation of travel time for agents to task location based on schedule	com.snc.dynamic.scheduling.ignoreAgentTravelTimeDuringScheduling	Assigns work order tasks automatically without considering travel time for agents. <p>The Ignore Travel option appears in the work order task form, allowing dynamic scheduling to assign tasks to the highest ranked agent regardless of travel time.</p> <p>Set up the following parameters related to dynamic scheduling when Ignore Travel is enabled:</p>

System properties for Dynamic scheduling (continued)

Property label	Property name	Description
		<p>Note:</p> <ul style="list-style-type: none"> • Double booking must be enabled for the system to assign tasks to the agent automatically. • If access hours are defined in a work order task, the system ignores the defined access hours limit when auto-assigning that task to agents. Access hours are activated using Field Service Access Hours Management (com.snc.fsm_access_hours) plugin. <ul style="list-style-type: none"> • Type: true/false • Default value: false
Optimize work block travel time rating	com.snc.dynamic.scheduling.optimize_travel_time_rating	<p>Optimize work block travel time rating.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: Include all travel <p>The following is more details on property options:</p> <ul style="list-style-type: none"> • Include travel to task - Ideal when on-time arrival is a key business metric. Only the time it takes to travel to the task is considered in the rating. Any travel after the task is ignored for scoring. • Include travel after task - Ideal when the order of tasks matters and incorrect sequencing could increase overall route time. This is best if you want to factor in the impact a task has on travel time to the next task. This method ignores how far the agent has to go to the task, but includes the impact that traveling to the task has on the rest of the route. • Include all travel - This is ideal for route efficiency if you want to minimize the total travel time across a technician's day. This

System properties for Dynamic scheduling (continued)

Property label	Property name	Description
		<p>method considers both the travel time to a task, and the travel after the task.</p> <ul style="list-style-type: none"> • Include no travel - Ideal for remote tasks, virtual support, dispatch scenarios where the technician is static since travel is not a factor in work block ra
Travel calculation method	work.management.travel.calculation.dynamic_scheduling	<p>Uses Google Maps API, Beans.AI, or straight line estimates to calculate estimated agent travel time and distance to task locations when agents are assigned tasks using dynamic scheduling.</p>
Distance calculation method	work.management.distance.calculation.dynamic_scheduling	<p>Calculates agent’s estimated travel time and distance to the task location based on either Google Maps API, Beans.AI, or straight line estimates.</p> <p>If the Use Google Maps API for travel time estimates geolocation property is enabled, then you can select Google Maps API or straight line estimates in the properties for calculating estimated travel time and distance.</p> <p>If the Use Google Maps API for travel time estimates is not enabled, then the system uses the value in the Estimated Travel Duration field in the work order to determine task assignment for the agent.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: Use straight line estimate.
Show advanced agent recommendation logs to user	com.snc.dynamic.scheduling.showlogs	<p>Displays recommended eligible agents to the dispatchers while scheduling the tasks using dynamic scheduling. Type: true/false Default value: false</p>
Dynamic Bundling before Dynamic Scheduling	com.snc.dynamic.scheduling.bundle_before_scheduling	<p>Ensures dynamic bundling runs before dynamic scheduling. Tasks in the Pending Dispatch state are bundled before running dynamic scheduling.</p>

System properties for Dynamic scheduling (continued)

Property label	Property name	Description
		<ul style="list-style-type: none"> • Type: true/false • Default value: false
Enable the feature of assigning task to agent with travel time within threshold	work.management.enable.optimizing.travel	<p>Enables dynamic scheduling to assign work order tasks to the nearest agent regardless of availability.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
Assign task to agent with travel time within the threshold in minutes	work.management.travel.time.threshold.minutes	<p>Sets the travel time (in minutes) to assign a work order task to the nearest agent if they are within the travel distance.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 5
Allow Dynamic Scheduling to only use work schedule/WFO	com.snc.dynamic.scheduling.useWorkScheduleOnly	<p>Controls whether dynamic scheduling and workforce optimization can fall back to the default work schedule when scheduling agents. When set to true, the scheduling engine does not fall back to the default work schedule. When set to false, the scheduling engine falls back to the default work schedule if an agent's work schedule expires or is unavailable.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true

Work Order Task Start and End Dates

Dynamic scheduling uses **Window start date** and **Window end date** field values in the work order task to schedule tasks. Additionally, the system properties, business rules, and client scripts are considered during set up and configuration.

- If both the Window start and Window end dates are present in the work order tasks, dynamic scheduling uses these dates.
- If the task has a Window start date but the date has passed, dynamic scheduling uses the current date and time for this value.
- If the task has a Window start date but no Window end date, dynamic scheduling uses the com.snc.wm.wo.task_window_day property to determine this value.

- If the task has no Window start date but has a Window end date, dynamic scheduling uses the current time for this value.
- If the task has neither a Window start nor a Window end date, dynamic scheduling uses the current time and date for the Window start and the `com.snc.wm.wo.task_window_day` property for the Window end.
- If a task is created, the Window end date gets automatically populated based on the latest SLA breach date from its parent work order. The business rules **Populate Window End Based On SLA** for both Task SLA [`task_sla`] and Work Order Task [`wm_task`] tables, and the client script **Calculate Window End** has to be set to true.
- If a task is created and Fixed window is enabled, the business rules and client scripts doesn't execute and Window end time is not updated. If a work order is created based on an appointment and there is an SLA associated with the work order, the Window end time is populated based on the appointment and not on the SLA.

The **Window start date** field gets updated based on the delivery date of the transfer order only for the work orders that are not assigned. The business rule **Sync up Delivery Time with WOT** has to be set to **True**. For multiple transfer orders containing mandatory part requirements, the **Window start date** is set to the latest delivery time of the transfer order(s). Window start date is updated based on transfer orders only when the part requirement associated with the transfer order is mandatory. However, you can manually edit the window start time and override the existing date that is populated based on the transfer order.

i Note:

The Window start date is not updated if the work order task is one or more of the following:

- Associated with an appointment
- Fixed Window
- Window end is populated and is before the delivery by date.

Related topics

[Example - Dynamic Scheduling](#)

[Configure dynamic scheduling](#)

Example - Dynamic Scheduling

Explore how Dynamic Scheduling prioritizes the best agent for a task, focusing on key matching criteria.

Consider a scenario in which all field agents work in the same region. Since all agents are always going to be the same relative distance from a task, availability to perform a task is the most important criteria, followed by matching part requirements.

The following infographic helps you to understand how dynamic scheduling use weighting to determine the best agent to assign to a

Sample Work Order Task Data

This example assumes the following information.

Maximum number of hours available in a day: **8**

Total parts required: **5**

Matching Criteria Values

Alice and Mack are Global Teller Systems field agents.

- Alice has 5 hours of availability and 2 of the required parts.
- Mack has 8 hours of availability and 1 of the required parts.
- **Availability Today** criteria is assigned a weight of **20**, as it is most important.
- **Agents with most parts** criteria is assigned a weight of **10**, as it should be considered as the next most important criteria.
- All criteria have a ranking method of **More is better**.

	Alice	Criterion	Weight	Ranking Method	Mack
	5	Availability Today	20	More is better	8
	2	Agents with most parts	10	More is better	1
					

Calculate Criterion Rating

First, calculate a number for each criterion, based on the sample work order task data provided:

Availability Today:

Alice: $5 / 8 = 0.625$ (with 8 being the maximum number of hours)

Mack: $8 / 8 = 1$

Agents with most parts:

Alice: $2 / 5 = 0.4$ (with 5 being the total number of parts required)

Mack: $1 / 5 = 0.2$

	Alice	Criterion	Weight	Ranking Method	Mack
	5 / 8	Availability Today	20	More is better	8 / 8
	2 / 5	Agents with most parts	10	More is better	1 / 5
					

Calculate Agent Ranking for Alice

Multiply the number for each criterion by the criterion weight and then divide the result by the total of all criterion weight. Repeat for each criterion and add the results.

Consider distance from task in addition to matching criteria

Consider how the calculation would change if the field agents were not all in the same, small region. When distance matters, the **Current Distance From Task** or **Distance From Task** matching criteria can be used. These distance from task criteria are unlike the other criteria because the closer the field agent is to the task, the better. Therefore, unlike the other criteria, a lower number here is better than a higher number. The less is better adjustment is necessary to make a true comparison of the resulting scores. An adjustment is made by subtracting the score from one (1) for any criterion using the ranking method Less is better.

Note:

Distance From Task calculation occurs in the **LocationFromTask** Script Includes and **Current Distance From Task** calculation occurs in the **CurrentLocationFromTask** Script Includes. This calculation takes the task latitude and longitude and compares it to the agent's latitude and longitude, as expressed in miles.

Related topics

[Configure dynamic scheduling](#)

Configure dynamic scheduling

Dynamic Scheduling enables automatic task assignment to field agents based on predefined rules and configurations. This feature helps streamline task distribution by verifying the correct tasks are assigned to the most suitable agents, optimizing travel time, skill matching, and task priority.

Before you begin

- Select dynamic scheduling as the preferred task assignment method. This verifies that tasks are automatically assigned to field agents based on predefined criteria and rules. For more information, see [task assignment method](#).
- Set up agent schedules so that dynamic scheduling systematically verifies optimal task allocation. For more information, see [Set up agent schedules for dynamic scheduling](#).
- Review the properties and other installed components related to dynamic scheduling. Customize the settings to align with your organization's specific requirements. For more information, see [Review system properties and components for Dynamic Scheduling](#).
- Verify to configure travel time and distance calculation to determine how the system calculates an agent's estimated travel time and distance to a task location. You can choose between using the Google Maps API for real-time travel estimates or straight-line estimates based on the geolocation property settings.
 - If the `Use Google Maps API for travel time estimates` geolocation property is enabled, choose between using the Google Maps API or straight-line estimates.
 - If the `Use Google Maps API for travel time estimates` geolocation property is turned off, the system considers the Estimated Travel Duration field's value from the work order task.

Role required: admin

About this task

By default, the `Dynamic Scheduling Config for Work Order` configuration is available with the Dynamic Scheduling plugin. You can modify the configuration as needed or use as a template to create your custom configuration.

Procedure

1. Navigate to **All > Field Service > Administration > Dynamic Scheduling Configuration**.
2. Update an existing work configuration or create one.
This field only appears if you have the plugin installed. For more information, see [Configuring Field Service Work Configurations](#).
3. Select the task table that dynamic scheduling uses to assign tasks to agents.
The default table is `Work Order Task [wm_task]`. Dynamic scheduling can have only one configuration for each task table.
4. **Optional:** Select the **Un-assignment** check box to let dynamic scheduling unassign a previously assigned task and assign a higher-priority task based on task ordering rules.
When this option isn't selected, the **Un-Assignment Constraints** related list won't be visible in the form.
5. Select the **Default Agent Work Schedule**.
Configure the order in which dynamic scheduling determines an agent's work schedule - the agent's specific work schedule, schedule specified on the agent's user record, the default agent work schedule selected in this configuration, or the default 8-5 weekday schedule.
6. Set the **Consider Territory Membership** to either consider or ignore the agent's territory membership for assigning tasks.
This field appears when the Field Service Territory Planning plugin is enabled.
7. In the **Task Filters** related list, add a task filter or modify an existing task filter or add a new filter.
Task filters help identify which tasks should be assigned using dynamic scheduling. Within the filter, you can set criteria to match tasks with the most suitable agents. For more information, see [Create a task filter for dynamic scheduling](#).
8. In the **Task Ordering Rules** related list, add a new task ordering rule or modify an existing rule.
Task ordering rules help to determine the order of tasks. For more information, [Create a task ordering rule](#).
9. **Optional:** In the **Un-Assignment Constraints** related list, add or modify criteria for unassigning tasks.
This enables the system to free up agents for higher-priority tasks when needed. For more information, see [Create a task unassignment constraint](#).
10. Select **Update**.
11. Select **Validate config** to validate the dynamic scheduling configuration.
An information message appears at the top of the Dynamic Scheduling Configuration form if the configuration is valid.

Result

Dynamic scheduling automatically assigns tasks to field agents based on the defined rules and schedules.

Related topics

[Example - configure dynamic scheduling to assign preferred technicians to tasks](#)

[Example - configure dynamic scheduling to ignore excluded technicians](#)

[Assigning work order tasks to agents using dynamic scheduling](#)

Create a task filter for dynamic scheduling

Task filters allow you to define criteria for selecting and assigning tasks to the most suitable agents using dynamic scheduling.

Before you begin

Role required: admin

About this task

Task filters help you refine how tasks are assigned to the most suitable agents. You can use the default filters provided by the Dynamic Scheduling plugin or create custom filters tailored to your organization's specific needs.

Dynamic Scheduling, when combined with Auto Assignment and Immediate Assignment, offers flexibility in task allocation. Tasks can be assigned instantly or at scheduled intervals, depending on your configuration.

The following table explains how Dynamic Scheduling behaves with different combinations of Auto Assignment and Immediate Assignment settings. These options let you balance automated task assignment with manual control.

Auto assignment	Immediate assignment	Result
Enabled	Enabled	Dynamic Scheduling runs instantly, automatically assigning tasks to field agents.
Enabled	Disabled	Dynamic Scheduling runs, adding tasks to a scheduled batch. Tasks are assigned to agents at regular intervals.
Disabled	Disabled	The dispatcher manually triggers Dynamic Scheduling, and tasks are sent back for confirmation before assignment.

Procedure

1. Navigate to **All > Field Service > Administration > Dynamic Scheduling Configuration**.
2. In the **Task Filters** related list, click **New**.
3. Fill in the fields on the Task Filter form.

Task Filter form

Field	Description
Name	Enter a name for the task filter.
Active	Select to activate the task filter.
Execution Order	Set the priority for the filter. Filters with lower execution order values are applied first, creating the initial task list. Higher values further refine the list. For example, filters for maintenance tasks have a lower order than filters for pending dispatch or appointment tasks.
Table	Select the task table (e.g., Work Order Task) that this filter will apply to.
Conditions	Specify the conditions that will identify which tasks to include in the filter.
Resource Type	Choose whether the tasks should be assigned to individual users or crews. Select User [sys_user] for individual agents or Crew [wm_crew] for teams.

Field	Description
Auto Assign	Select to automatically assign tasks. The Auto Assignment Frequency field appears when this field is selected.
Auto Assignment Frequency	Choose the auto assignment frequency: <ul style="list-style-type: none"> ○ Immediate: Tasks are assigned as soon as they are ready. ○ Interval: Tasks are assigned at regular intervals that you define. If you select Interval, the Auto Assignment Interval field appears.
Auto Assignment Interval	Set the interval (in minutes) for how often tasks should be auto-assigned. The task filter with a higher Execution Order value must have an interval greater than a task filter with a lower Execution Order value.

4. In the **Select Criteria** related list, choose the criteria that will be used to evaluate and identify suitable agents for each task.

a. Assign a weight to each criterion based on its importance.

Note:

By default, each matching criterion has an assigned weight of 10. You can assign a higher weight to the criteria that are more important or assign a lower weight to the criteria that are less important.

b. Select a ranking method for the selected matching criteria.

Note:

Use **More is Better** for agent availability as more availability is preferred. Use **Less is Better** when selecting an agent based on the number of assigned tasks as fewer tasks are preferred

For more information, see [Matching criteria for assigning tasks](#).

5. Click **Save**.

Result

The task filter is ready for use in the dynamic scheduling process, optimizing task assignments based on your defined criteria and preferences. Dynamic scheduling uses the following formula to calculate the agent rank or score by multiplying each criterion's rating by its respective weight, dividing by the total weight of all criteria, and summing the results.

$$\begin{aligned}
 & (\text{Criteria}_1\text{_rating} * \text{Criteria}_1\text{_weight}) / \text{total_criterion_weight} \\
 & + \\
 & (\text{Criteria}_2\text{_rating} * \text{Criteria}_2\text{_weight}) / \text{total_criterion_weight} \\
 & + \\
 & (\text{Criteria}_3\text{_rating} * \text{Criteria}_3\text{_weight}) / \text{total_criterion_weight} \\
 & = \text{agent_rank/score}
 \end{aligned}$$

What to do next

[Create a task ordering rule](#)

Matching criteria for assigning tasks

The Dynamic Scheduling uses configurable matching criteria, such as skills and availability, to evaluate the agents in a selected group and provide an overall ranking.

Matching criterion are used by other ServiceNow applications. For example, the 'Assigned Cases' matching criteria applies to the Case [sn_customerservice_case] table and is used by Customer

Service Management (CSM). Any criterion can be copied, renamed, and configured for use against other tables, such as the work order task table. Be sure to test any configuration changes thoroughly. There are three types of matching criteria:

- Simple Match: creates one-to-one matching, such as matching the time zone of an agent with the time zone of a task location.
- Aggregate: uses a simple query and returns an aggregate result. For an aggregate type, select a table and create a filter, and then select an aggregate field such as the **Assigned to** field. This type of query returns a set of users.
- Scripted: uses a scripted query which returns a list of users.

Note:

Workforce optimization schedule and personal events aren't supported when using matching criteria.

Matching criteria for task filters

Criteria	Description	Type	Applies to [Table]
Agents with most parts	Identify agents with the most number of required parts using dynamic scheduling.	Scripted	Task
Assigned Cases	Calculates the workload based on all the assigned cases (all priorities P1, P2, P3, etc.). The agent's overall rank decreases with more assigned cases. The more cases assigned, the lower the contribution to the agent's overall rank.	Aggregate	sn_customerservice_case
Availability Today	Determines availability based on the schedule, overlap timezone, and current time. Availability is calculated based on the agent's work schedule, and personal time off. The more availability an agent has, the higher the contribution to the agent's overall rank.	Scripted	Task
Consistent Assignment for SM tasks	Assigns work order tasks with the same parent work order to the same agent. Ensures assignment	Scripted	sm_task

Matching criteria for task filters (continued)

Criteria	Description	Type	Applies to [Table]
	consistency across all matching agents.		
Current Distance From Task	Considers an agents distance from the task location.	Scripted	Task
Distance from Task	Evaluates the agent's distance from the task location.	Scripted	Task
Distance from task with radius exclusion	Ranks agents based on the nearest location to perform the job, excluding those outside the defined radius.	Scripted	Task
Filter out off-shift agents	Excludes agents who are not available based on schedule or having time-off events.	Scripted	wm_task
Ignore Excluded Technician	Prevents automatic assignment of excluded technicians to work order tasks associated with specific accounts. Excluded technicians won't be assigned if the work order task is associated to an Account for which the technician has been excluded.	Scripted	wm_task
Ignore Rejected Technician	Avoids reassignment of tasks to technicians who have recently rejected the same task. The system property <code>work.management.rejected.technician.duration</code> determines the time period from when a technician rejected a task to when that task can be automatically reassigned to the same technician.	Scripted	wm_task
Last Assigned	Prioritizes agents based on their most recently assigned	Scripted	task

Matching criteria for task filters (continued)

Criteria	Description	Type	Applies to [Table]
	work to balance the workload. For the sake of balancing assigned work, prioritized the agent based on the last assigned work.		
Matching Mandatory Parts For Dynamic Scheduling	Assigning only the agents with the mandatory parts. Ranks agents based on the availability of mandatory parts required for the job.	Scripted	task
Matching Mandatory Skills For Dynamic Scheduling	Ranks agents based on the availability of mandatory skills and optional skills defined in Task Skills that are required for the task. The more skills that match, the higher the contribution to the agent's overall rank. Note: If using the mandatory skills feature, use the Matching Skills - Mandatory Skills Support criterion to match agents with the mandatory skills identified for a case.	Scripted	task
Matching Skills	Evaluates availability based on the skills matching the task requirements. The agent's rank increases with more matching skills.	Scripted	task
Matching Skills Level Gap For Dynamic Scheduling	Ranks agents based on the number of skills and skill levels, using the "less is better" method. Prioritize agents with	Scripted	task

Matching criteria for task filters (continued)

Criteria	Description	Type	Applies to [Table]
	the sufficient skill level over agents that are over-skilled for the task.		
Prioritize Preferred Technicians	Assigns tasks based on technicians who are most preferred for working on a customer account.	Scripted	wm_task
Radius Exclusion	Ranks agents based on the defined radius, excluding those outside the radius.	Scripted	task
Rank Preferred Technicians	Identifies technicians who are most preferred for working on a customer account using dynamic scheduling.	Scripted	task
Timezone Overlap	Ranks agents based on their timezone overlap with the task location.	Scripted	task
Matching mandatory crew skills for dynamic scheduling	Match mandatory skills for a crew task to crews with agents that have those skills.	Scripted	wm_crew
<p>i Note: Needs Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) to be activated.</p>			
Crew skill level gap for dynamic scheduling	Match mandatory skill levels for a crew task, to crews with agents that have skills at the required level.	Scripted	wm_crew
<p>i Note: Needs Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) to be activated.</p>			
Crew Matching Skills	Match crews with the skills listed in the work	Scripted	wm_crew

Matching criteria for task filters (continued)

Criteria	Description	Type	Applies to [Table]
<p>i Note: Needs Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) to be activated.</p>	<p>order task, and assign the task to that crew.</p>		
<p>Matching crew skills for task resource requirements</p> <p>i Note: Needs Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) to be activated.</p>	<p>Match crews with the skills listed in the resource requirements, and assign the task with those resource requirements to that crew.</p>	Scripted	wm_crew
<p>Crew Distance from Task</p> <p>i Note: Needs Field Service Crew Operations plugin (com.snc.fsm_crew_scheduling) to be activated.</p>	<p>Evaluates the crew's distance from the task location.</p>	Scripted	wm_crew
<p>Matching Agent Efficiency Criteria for Dynamic Scheduling</p> <p>i Note: Needs Field Service Agent Efficiency plugin (com.snc.fsm_agent_efficiency) to be activated.</p>	<p>Assigns a work order task to an agent by matching the Agent Efficiency criteria specified in the work order task with the agent's efficiency criteria.</p>	Scripted	wm_task

As part of selecting the matching criteria, you can specify the following settings for each individual criterion:

- ranking and display usage
- ranking method
- ranking weight

- threshold
- active/inactive

Ranking and display usage

In the **Use for** field, specify how you want that matching criterion to be used:

- **Ranking and display:** uses the criterion to determine agent ranking and displays it in a column on the workbench.
- **Display only:** displays the criterion in a column on the workbench but does not use it to determine agent ranking.
- **Ranking only:** uses the criterion to determine agent ranking but does not display it on the workbench.

Ranking method

There are two ranking methods:

- **More is better:** for example, more availability is better when determining the agent ranking.
- **Less is better:** for example, fewer assigned cases are better when determining agent ranking.

Weight

Each matching criterion has an assigned weight. By default, the matching criteria in the **Recommendation for Case Assignment** matching rule have an assigned weight of 10. You can assign a higher weight to the criteria that are more important.

Threshold

A threshold sets a minimum requirement for a criterion. For example, set the threshold of the Matching Skills criterion to 3 if you want to see only those agents who have at least three of the required skills for a task. For availability, set the threshold to the desired number of hours to display only those agents who have that minimum number of work hours available. You can set the threshold in the **Select Criteria** related list on the Matching Rule form. If necessary, personalize the list and add the **Threshold** column.

Active/Inactive

There can be several matching criteria associated with the matching rule that determines the assignment workbench configuration. Each individual criterion can be set to active or inactive. Changing this setting has an immediate impact on the agent ranking. You can make this change in the **Select Criteria** related list on the Matching Rule form. If necessary, personalize the list and add the **Active** column.

Calculating the agent ranking

Dynamic Scheduling adds the values of the matching criteria and their respective weights and uses these values to determine the overall agent ranking.

1. Calculate a number for each criterion.
2. Multiply that number by the criterion weight.
3. Divide the result by the total of all criterion.
4. Repeat for each criterion and add the results.

The following example shows how the ranking is determined for an agent with these matching criteria values:

- Matching Skills with Mandatory Skills Support: 5/6
- Availability Today: 7 hours
- Assigned Cases: 2

Calculations:

- **Matching Skills:** $2 / 3 = 0.666$ (with 3 being the maximum number of skills)
- **Availability Today:** $7 / 8 = 0.875$ (with 8 being the maximum number of hours)
- **Assigned Cases:** $2 / 26 = 0.0769$ (with 26 being the total number of tasks in the table)
- **Weight:** each matching criteria has an equal weight of 10

$$((0.666 \times 10) / \text{Total of criterion weight (10+10+10)}) + ((0.875 \times 10) / \text{Total of criterion weight (10+10+10)}) + ((0.0769 \times 10) / \text{Total of criterion weight (10+10+10)})$$

$$(6.66 / 30) + (8.75 / 30) + (0.769 / 30)$$

$$0.222 + 0.291 + 0.0256 = 0.53$$

This calculation is performed for each agent in the assignment group. Agents are ranked based on the value of this calculation, with the highest number earning the highest ranking.

Create a task ordering rule

Dynamic scheduling uses task ordering rules to prioritize and arrange tasks effectively. These rules ensure tasks are handled in the right sequence, helping you streamline field service operations.

Before you begin

Role required: admin

About this task

Task ordering rules let you control how tasks are prioritized during scheduling. By defining rules, you can ensure that the most critical tasks are handled first, and tasks are ordered based on your organization's specific needs. Multiple rules can be created and applied in sequence, based on execution order, to give you maximum flexibility and precision.

How task ordering rules work:

- Execution order: Rules are evaluated in order, with the rule having the lowest execution value taking precedence.
 - For instance, you might create a rule that prioritizes tasks by urgency (P1, P2, P3).
 - Another rule can be applied to organize tasks with the same priority by their SLA due date.
- Task dependencies: Task dependencies can override task ordering rules to ensure proper task flow.
 - If a predecessor task gets reassigned and a successor task is assigned, the predecessor task is scheduled before the successor task starts.
 - If a predecessor task is unassigned, the successor task remains unassigned.

- If a predecessor task is assigned, the successor task waits until the predecessor task is completed.
- If a predecessor task has a lower priority, the successor task waits until the predecessor task is assigned.

Note:

Dynamic scheduling only supports Finish to Start advanced task dependency with no maximum or minimum lag time. Other types of task dependencies will be ignored.

Types of task ordering rules:

• **Simple rule**

- Sorts tasks based on one selected field from the task table.
- Choose either ascending or descending sort order.

• **Advanced rule**

- Sorts tasks based on selections from two unrelated tables.
- Requires a reference field to connect the task table and another table. For example, you can sort work order tasks based on SLAs stored in the Task SLA table.

Priority based ordering rules: Dynamic scheduling provides two priority based ordering rules.

- **Work order task priority:** Uses the task's priority to determine task order, with a default execution order of 100.
- **Work order priority:** Uses the overall work order's priority to determine task order, with a default execution order of 200.

Note:

By default, task ordering rules are ignored during scheduling to prevent potential performance issues. If the number of tasks returned from the task filter condition is very large, applying task ordering could result in significant delays. You can manually enable task ordering rules if the task volumes will not impact performance.

Real-world use cases:

- **Healthcare:** Prioritize equipment maintenance tasks based on the criticality of medical devices.
- **Manufacturing:** Sort tasks by the cost of machine downtime per hour to reduce impact on production.
- **Retail:** Use advanced rules to prioritize tasks by footfall, ensuring high-traffic stores are serviced first.
- **Utilities:** Simple rules can prioritize emergency tasks, like power outages affecting critical infrastructure.

Procedure

1. Navigate to **All > Field Service > Administration > Dynamic Scheduling Configuration**.
2. In the **Task Ordering Rules** related list, click **New**.
3. Fill in the fields on the Task Ordering Rule form, as necessary.

Task Ordering Rule form

Field	Description
Name	The task ordering rule name.
Execution Order	Specify the order in which this rule should be evaluated. The rule with the lowest value will determine the initial task order.
Dynamic Scheduling Config	Select the dynamic scheduling configuration to which this ordering rule applies.
Advanced	Select to create an advanced task ordering rule from different tables.
Sort Table	Choose the table containing the tasks to be sorted.
Sort Field	Select the field that will determine the task order.
Sort Order	Choose ascending (A-Z) or descending (Z-A) order.
Task Field	Specify the field on which the tasks will be sorted.
Task Table	For an advanced ordering rule, this field displays the table that contains the tasks to be sorted.
Connecting Task Field	For advanced rules, select the field that links the tables together.
Aggregate Function	For advanced rules, choose an aggregate function like MIN, MAX, COUNT, etc.

4. Click **Submit**.

The task ordering rule is created.

Result

Dynamic scheduling will use this rule to prioritize tasks based on the criteria you've defined, ensuring that high-priority tasks are scheduled appropriately.

What to do next

[Create a task unassignment constraint](#)

Create a task unassignment constraint

Dynamic scheduling allows you to define unassignment constraints that prevent certain tasks from being unassigned, even when lower in priority. This feature ensures that critical tasks stay assigned, based on dependencies or urgency.

Before you begin

Role required: admin

About this task

Unassignment constraints help control when tasks can or cannot be unassigned, ensuring that essential tasks remain assigned. This prevents disruptions, especially when tasks have dependencies or are time-sensitive. For example, a task nearing its SLA breach or one that requires sourced parts should not be unassigned, regardless of its relative priority in the task ordering rules.

Dynamic scheduling offers three predefined unassignment constraints:

1. Task with downstream: Prevents unassignment if the task has downstream tasks that depend on it.
2. Would breach SLA in the next 5 hours: Prevents unassignment if the task's Service Level Agreement (SLA) is expiring within five hours.
3. Part sourced: Prevents unassignment if one or more parts required for the task have already been sourced.

Enabling the unassignment option in Dynamic Scheduling configuration allows the system to unassign tasks in favor of more important tasks (as determined by task ordering rules). However, unassignment constraints can prevent specific tasks from being unassigned, even if the task is of lower priority. If a task is unassigned and has downstream tasks, the downstream tasks are also unassigned and added to the pending dispatch queue.

Real-world use cases:

- Healthcare: Prevent unassignment of critical medical equipment maintenance tasks nearing an SLA breach.
- Manufacturing: Block unassignment of tasks that have sourced parts, ensuring resources are used efficiently.
- Utilities: Keep emergency repair tasks assigned when downstream dependencies are involved.

Procedure

1. Navigate to **All > Field Service > Administration > Dynamic Scheduling Configuration**.
2. In the **Un-Assignment Constraints** related list, click **New**.
3. Click the lookup icon next to the **Constraint** field.
4. In the Constraints list, click **New**.
5. Fill in the fields on the Constraint form, as necessary.

Constraint form

Field	Description
Name	The constraint name.
Task Table	Select the task table to which this constraint applies.
Type	Choose the type of constraint. <ul style="list-style-type: none"> ○ Simple: define a simple constraint by selecting a table, a task field, and one or more filter conditions. ○ Advanced: define an advanced constraint by creating a script.
Constraint Table	Specify the table used to define the constraint on a task.
Task Field	Select the task field to which this constraint applies.
Constraint Condition	When this condition is true, it prevents task reassignment or unassignment.
Constraint Script	If using an advanced constraint, create a script to define the constraint details.

6. Click **Submit**.

The constraint is saved and returns you to the Un-Assignment Constraint form.

7. Click **Submit.**

The constraint is active and added to the configuration in the **Un-Assignment Constraints** related list.

Result

This constraint will prevent task unassignment based on the specified conditions, ensuring that tasks are not unassigned even if they have lower importance according to the task ordering rules.

Example - configure dynamic scheduling to assign preferred technicians to tasks

Automatically assign preferred Field Service agents to work order tasks so the correct technician is assigned to the task. If a Field Service agent isn't a good fit for a task, you can also exclude them.

Before you begin

Role required: wm_dispatcher, wm_manager, wm_admin

Procedure

1. Navigate to **All > Dynamic Scheduling Administration > Configuration**.
2. Select **Work OrderTask Dynamic Scheduling Config**.
3. On the **Task Filters** tab, add the **Prioritize preferred and secondary technicians** and **Rank preferred and secondary technicians** criterion to the task filters.
For information on adding criteria to a task filter, see [Create a task filter for dynamic scheduling](#)
4. Select **Update**.

Related topics

[Assign preferred agents to tasks](#)

Example - configure dynamic scheduling to ignore excluded technicians

Add dynamic scheduling task filters to ensure that work order tasks are not assigned to agents who are excluded from the customer account.

Before you begin

Ensure that dynamic scheduling is selected as assignment method for tasks.

Role required: wm_dispatcher, wm_manager, wm_admin

About this task

Dispatchers or managers can override exclusions at any time by manually assigning work order tasks to excluded technicians. A warning message appears that the work order task has been assigned to an excluded agent.

Procedure

1. Navigate to **All > Dynamic Scheduling Administration > Configuration**.
2. Select **Work OrderTask Dynamic Scheduling Config**.
3. On the **Task Filters** tab, add the **Ignore Excluded Technician** criterion to the task filters.
For information on adding criteria to a task filter, see [Create a task filter for dynamic scheduling](#)
4. Select **Update**.
The dynamic scheduling matching criteria screens out the excluded agents from a particular account when the work order tasks are assigned using any of the following methods:

- [Auto assignment](#)
- [Manage appointments](#)

Related topics

[Configure Field Service Management to use dynamic scheduling](#)

[Create a task filter](#)

[Exclude Field Service agents from being assigned work order tasks](#)

Setting up Intelligent Task Recommendations

Efficiently recommend tasks to agents using Intelligent Task Recommendations, a feature that aligns tasks with agents based on predefined policies and filtering conditions. Determine the applications through which you can access task recommendations.

Configuration overview

The steps to set up Intelligent Task Recommendations are:

1. **Create a policy:** Define a policy that governs whether a task should be recommended to a selected agent. This policy is essential for confirming that the right tasks are matched with the right agents. For more information, see [Create Task Recommendation Policies](#).
2. **Map the policy to applications:** Associate your policy with specific applications to enable dispatchers or agents to utilize the task recommendation feature within those applications. This association confirms that recommendations are accessible where they're most needed. For more information, see [Map applications to Intelligent Task Recommendation policies](#).
3. **Define optional recommendation criteria:** Enhance the accuracy of task recommendations by defining additional criteria. These criteria are divided into two categories. For more information, see [Predefined recommendation criteria](#).
 - **Filtering constraints** filter out tasks that don't meet the defined constraints.
 - **Ranking criteria** rate the tasks and apply an appropriate score.
 - **Define optional recommendation criteria:** Enhance the accuracy of task recommendations by defining additional criteria. These criteria are divided into two categories:

Note:

Custom recommendation criteria are defined by script includes. For more information, see [Providing a script for custom task recommendation criteria](#).

Activate Intelligent Task Recommendation

Activate the Intelligent Task Recommendation plugin (com.snc_task_recommendations) for Field Service Management if you have the admin role.

Before you begin

Field Service Intelligent Task Recommendation feature requires the following plugins:

- **Intelligent Task Recommendation (com.snc_task_recommendations):** Provides basic task recommendation framework scripts, configurations, and default extension points.
- **Field Service Management Intelligent Task Recommendations (com.snc_fsm_task_recommendations):** Provides specific implementation and configuration for Field Service Management, which includes default filter constraints, ranking criteria, and Field Service Management extension points.

Ensure the Field Service Management plugin is activated before you install Field Service Intelligent Task Recommendation. See [Activate Field Service Management](#) for more information.

Role required: admin

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Intelligent Task Recommendation plugin (com.snc_task_recommendations)) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. **Optional:** If demo data is available and you want to install it, click **Load demo data**. Demo data comprises sample records that describe application features for common use cases. Load demo data when you first install the application on a development or test instance.
4. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Create Task Recommendation Policies

Create policies to recommend the best available work order tasks for agents based on the specified rules and conditions.

Before you begin

Role required: admin, wm_admin

About this task

You can use the default Standard task recommendation policy or create a new policy. The following steps explain how you can create a policy.

Procedure

1. Navigate to **Field Service > Task Recommendation Administration > Task Recommendation Policies**.
2. Click **New**.
3. On the form, fill in the fields.

Task Recommendation Policy

Field	Description
Display Name	Display name of the task recommendation policy.
Name	Name of the task recommendation policy stored in the wm_task table.

Field	Description
Table	Task table that is selected for the recommendation policy.
Applicable to	Applications that are supported for the policy.
Application module	Application module under which the policy exists.
Application	Application that contains this record.
Active	Option to indicate whether the policy is available for consideration when recommending work order tasks.

4. In the **Query condition** field, add filter conditions to recommend tasks.

a. To recommend the best matched tasks that are in the Pending Dispatch state to an agent, click **Add Filter Condition** and create the condition.

For example, **[State] [is] [Pending Dispatch] AND [Active] [is] [true]**.

b. To apply an alternate condition set to the query, click **Add "Or" Clause** and add conditions for the second set.

5. Click **Submit**.

Result

The recommendation policy is created successfully. The policy has the Filtering Constraints and Ranking Criteria related lists.

What to do next

You can customize optional filter constraints and ranking criteria. For more information, see [Create a filter constraint or a ranking criteria for a task recommendation policy](#).

Create a filter constraint or a ranking criteria for a task recommendation policy

Define a filtering constraints or a ranking criteria for a task recommendation policy. Filter the best matched tasks for the agent based on the filter ordering rules.

Before you begin

Role required: admin, wm_admin

Procedure

1. Navigate to **Field Service > Task Recommendation Administration > Task Recommendation Policies**.
2. Open a policy from the list.
3. To create either a filter constraint or a ranking criteria, do one of the following:
 - To create a filter constraint, click **New** in the Filtering Constraints related list.
 - To create a rating criteria, click **New** in the Ranking Criteria related list.
4. On the form, fill in the fields.

Task Recommendation Policy Related Criteria form

Field	Description
Task recommendation policy	Name of the task recommendation policy for which you are defining the criteria.
Recommendation criteria	Recommendation criteria for which this criteria acts as an input.
Order	Order in which this criteria is evaluated.
Application	Name of the application.
Weight	Weight for the filtering constraint. Assign a higher weight to the criteria that are more important.
Ranking method	Method for ranking the criteria. Choices are as follows: <ul style="list-style-type: none"> ○ More is better: When setting the ranking, a higher value is better. For example, more skills availability is better when determining the task ranking. ○ Less is better: When setting the ranking, a lower value is better. For example, less travel time is better when determining the task ranking.

5. Click **Submit**.

Result

The task recommendation policy-related criterion is created successfully. The criterion is added to the appropriate related list: Filtering Constraint or Ranking Criteria.

Map applications to Intelligent Task Recommendation policies

Map applications to task recommendation policies. Provide access to these policies within those applications.

Before you begin

Role required: admin, wm_admin

About this task

By default, Dispatcher Workspace and Mobile are mapped to a task recommendation policy.

Procedure

1. Navigate to **Field Service > Task Recommendation Administration > Task Recommendation Applicabilities**.
2. Click **New**.
3. On the form, fill the fields.

Task Recommendation Applicability form

Field	Description
Display Name	Display name of the recommendation application.
Name	Name of the recommendation application.
Table	Task table that is selected for the recommendation policy.
Application module	Module of the application. This field is automatically set to Field Service Management .
Active	Option to indicate whether the application is available for consideration when recommending work order tasks.
Default task recommendation policy	The default task recommendation policy for this application.
Application	Application that contains this record.

4. Click **Submit**.

Related topics

[Assign work order tasks to agents using Intelligent Task Recommendation](#)

[Assign tasks to yourself based on Intelligent Task Recommendation](#)

Create custom recommendation criteria

Define recommendation criteria that policies can use to rank or evaluate tasks for agents.

Before you begin

Role required: admin

About this task

Some predefined recommendation criteria are provided for you. For more information, see [Predefined recommendation criteria](#).

Procedure

1. Navigate to **All > Field Service > Task Recommendation Administration > Recommendation Criteria**.
2. Click **New**.
3. On the form, fill in the fields.

Recommendation Criteria

Field	Description
Display Name	Display name of the recommendation criterion.
Name	Name of the recommendation criterion.

Field	Description
Prefetched table	The prefetched table selected for the recommendation criterion.
Prefetched fields	Supporting prefetched fields from the prefetched table.
Type	Type of the criterion, either filter or rank.
Application	The application containing this record.
Application module	The default value is Field Service Management.

4. In the **Script** field, enter the script that you want to run when recommending tasks to the agent.

Example

For example, the following script calculates the distance between the agent's current location and the task location.

```
var distanceRule = new
  TaskRecommendationDistanceRuleProcessor(args);
var ruleProcessResult = distanceRule.processRule(user, tasks,
  timeStart, timeEnd, 'ranking');
ruleResult =
  TaskRecommendationFSMUtil.parseRuleResult(ruleProcessResult,
  "Distance from task");
```

For information about custom script requirements, see [Providing a script for custom task recommendation criteria](#).

5. Click **Submit**.

Result

The recommendation criterion is created successfully, and sorted into either the Filtering Constraints or Ranking Criteria group based on the selected type.

Providing a script for custom task recommendation criteria

Guidelines for creating scripts in recommendation criteria for an Intelligent Task Recommendation policy.

Customization script return object

Your script should return a JavaScript object in a minimum form as follows:

```
{
  "<task sys_id1>":
    {
      "rating": <rating1>
    },
  "<task sys_id2>":
    {
      "rating": <rating2>
    },
  ...
}
```

For filter constraints, set the return objects rating to one to unify the filter constraint result of the recommendation criteria by using the `sn_task_recommend.TaskRecommendationUtil.setRatingToOne(your object);` method.

To normalize the rating result of ranking criteria, the return JavaScript object should include normalization information.

```
{
  "<task <sys_id1>":
    {
      "rating": <rating1>,
      "normalizationData":
        {
          "numerator": <numerator value1>,
          "denominator": <denominator value1>
        }
    },
  "<task <sys_id2>":
    {
      "rating": <rating2>,
      "normalizationData":
        {
          "numerator": <numerator value2>,
          "denominator": <denominator value2>
        }
    },
  ...
}
```

For ranking criteria, the return object can contain data for final normalization.

Note:

If your scripts include normalization data, you can refer to the default script includes in the predefined recommendation criteria:

- The filtering constraint Exclude tasks agent cannot travel to:
`sn_fsm_task_rec.TaskRecommendationDistanceRuleProcessor`
- The ranking criteria Distance from task: `rankTaskOnDistance()`

Customized script in recommendation criteria

The following example shows how to write a script for the recommendation criteria.

```
var customizedScript = <your-script>;
var customizedResult = customizedScript.<your-method>();
ruleResult =
  TaskRecommendationFSMUtil.parseRuleResult(customizedResult,
    "<customized-rule>");
```

The following sample configuration provides a "distance from task" filter constraint.

```
var distanceRule = new
  TaskRecommendationDistanceRuleProcessor(args);
var ruleProcessResult = distanceRule.processRule(user, tasks,
  timeStart, timeEnd, 'ranking');
```

```
ruleResult =
  TaskRecommendationFSMUtil.parseRuleResult(ruleProcessResult,
    "Distance from task");
```

i Note:

Do not replace the task recommendation application keyword `ruleResult` in the script with any other words. Otherwise, the application will not be able to process the rule execution result.

Configuring Route Optimization

Route optimization is essential for improving resource allocation in field service management. It strategically reorders tasks to reduce travel time for field agents, enhancing both productivity and customer service.

Configuration overview

The steps to set up Route Optimization are:

1. Navigate to **All > sys_properties.list > sn_fsm_disp_wrkspc.enable_optimize_route** and set the value to true. This enables Route Optimization and displays **Optimize Route** option in the Dispatcher Workspace.
2. To use route optimization features in the Dispatcher Workspace, do the following:
 - Navigate to **All > Field Service > Dispatcher Workspace Configuration** and ensure all configurations are made within the 'Field Service Management Configurable Dispatcher Workspace' application scope.
 - Ensure the `sn_fsm_disp_wrkspc.enable_optimize_route` property is enabled.
 - To optimize task bundles, enable the **Route Optimization for Bundles** (`work.management.travel.calculation.bundle_route_optimization`) property.

Understanding Route Optimization Modes

You must select the `work.management.optimization.conflict_handling` system property to avoid conflicts due to overflow tasks when optimizing the route. For more information, see [Properties installed with Field Service Management](#).

Route optimization operates in three distinct modes, each designed to address specific scenarios:

1. **Optimize Within Shift:** Reorders tasks within a single agent's shift to minimize travel time while respecting task time windows, scheduled breaks, and locked tasks.
2. **Extend Into Overtime:** Adjusts tasks if an agent is running late, allowing overtime to ensure task completion.
3. **Cancel If Over Overtime:** Attempts to optimize the route but cancels the operation if it would result in exceeding allowed overtime.

Configuring additional options

Enhance route optimization with the following configuration options:

1. **Task constraints:** Ensures all tasks remain within their start/end time windows (if `isFixedWindow = true`) and avoids moving locked tasks.
2. **Breaks & Events:** Schedule optimizations around planned breaks or personal events.
3. **Travel time estimates:** Choose between using a Maps API for accurate travel time or straight-line estimates for faster calculations. Set up the Maps API key if opting for it.

Customizing system properties

Customize route optimization to meet specific needs by configuring the following properties:

1. **Task-to-Task Time Buffer:** Add a buffer of extra minutes between tasks to account for unexpected delays.
2. **Travel Time Calculation:** Select between Maps API or straight-line estimates based on your accuracy needs.
3. **Default Work Hours:** Define start and end times for agents without a fixed schedule.
4. **Travel Time Adjustments:** Adjust travel times by adding percentages to account for uncertainties, such as rush hour.
5. **Rush Hour Timings:** Specify morning and evening rush hour spans.
6. **Toll Road Option:** Decide whether toll roads should be included in the route planning.

Managing thresholds for task volume

The route optimization behavior adjusts based on the number of tasks:

- Under 15 tasks: Complete route optimization is performed, considering all tasks and travel.
- Over 200 tasks: Auto-routing fails, and an error message is displayed.
- Partial Routing: If not all tasks can be accommodated, a smaller subset is optimized, and the remaining tasks revert to pending dispatch.

Schedule job

The `Optimize Task Routing` job runs daily at 3:00 AM system time. Adjust this schedule based on your time zone or operational needs.

Non-customizable client scripts

Client scripts for route optimization are pre-optimized and run within 4-6 seconds. These scripts should not be customized to ensure optimal performance.

Additional scheduling configuration options

Optimize resource allocation and ensure timely service delivery with the advanced scheduling and dispatching capabilities, designed to manage technician workloads and prioritize high-priority tasks.

Configuring Task Bundling

Bundle work order tasks to keep similar tasks together.

Field Service Task Bundling enables dispatchers to create, assign, and manage work order task bundles. Task bundles are groups of work order tasks. Task bundles work similarly to work order tasks and can be dynamically scheduled or route optimized in the same way.

Dynamic task bundling

Admins can configure dynamic bundling policies and rules to bundle work order tasks automatically. For more information, see [Dynamic task bundling](#).

Activation

For information about activating the Field Service Task Bundling plugin (`com.snc.fsm_task_bundle`), see [Activate Field Service Task Bundling](#).

Components

For a detailed list of components added by Field Service Task Bundling, see [Field Service Task Bundling components](#).

Activate Field Service Task Bundling

Activate the Task Bundling plugin (com.snc.fsm_task_bundle) for Field Service Management if you have the admin role.

Before you begin

Role required: admin

About this task

The ability to bundle work order tasks in Dispatcher Workspace is installed with Field Service Task Bundling.

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Task Bundling plugin (com.snc.fsm_task_bundle) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Dynamic task bundling

You can create policies and rules to bundle tasks automatically with Field Service Task Bundling.

Dynamic task bundling enables administrators to create policies and rules to bundle tasks automatically according to custom criteria.

For information about the policies and rules installed with Field Service Task Bundling, see [Field Service Task Bundling components](#).

Policies

Policies dictate how many work order tasks should be grouped per bundle, as well as the maximum duration of bundles.

A policy consists of multiples rules. Policies have the following restrictions:

- Two records minimum per bundle.
- 200 records maximum per bundle.
- No limit for rules per policy.

- Policies must have rules to run.
- Policies must have qualifiers to run.

Qualifiers

Qualifiers dictate which work order tasks are targeted for bundling. By default, qualifiers are based on assignment groups. If [Field Service Territory Planning](#) is active, qualifiers are based on territories.

Qualifiers have the following restrictions:

- Qualifier records can contain only type of qualifier at a time.
- No duplicate qualifiers enabled per policy.

Rules

Rules specify the parameters for which work order tasks should be bundled.

A rule can only be assigned to a single policy. Rules only apply if tasks meet the following conditions:

- Are in the **Draft** state
- Aren't in a bundle
- Aren't a bundle itself
- Aren't a vendor task
- Don't have access hours
- Don't need a crew
- Don't have a fixed window
- Don't have subtasks or dependent tasks

Dynamic scheduling and dynamic bundling

Administrators can enable the **Dynamic Bundling before Dynamic Scheduling** (`com.snc.dynamic.scheduling.bundle_before_scheduling`) property to ensure bundles are generated before dynamic scheduling.

Create a task bundling policy

Create a task bundling policy to apply various rules for dynamically bundling tasks with Field Service Task Bundling.

Before you begin

Role required: admin

About this task

Task bundling policies are groups of rules that dictate how work order tasks are bundled using dynamic bundling. Policies can be configured to target a minimum and maximum range of records, as well as a maximum duration per bundle. Bundles generated through dynamic bundling can't exceed 200 work order tasks. Policies must have one or more qualifiers in order to run.

Procedure

1. Navigate to **All > Field Service > Dynamic Bundling Administration > Policies**.
2. Select **New**.

3. On the Task Grouping Policy form, fill in the fields.

Task Grouping Policy form

Fields	Description
Name	Name of the policy.
Task type	Task type table to apply to the rules in this policy.
Order	Order of when this policy is applied to a task relative to other policies.
Active	Option to make the policy active or inactive.
Sort by	Dictates how subtasks are sorted before bundling.
Minimum records	The minimum number of records enabled per bundle.
Maximum records	The maximum number of records enabled per bundle.
Duration field	The duration type that this policy should target.
Maximum duration	The maximum duration per task bundle created by this policy.

4. Select **Submit**.

What to do next

Policies require rules and qualifiers to run. For more information, see [Create a task bundling rule](#) and [Add qualifiers to a task bundling policy](#).

After a policy is complete, you can schedule them or run them manually. For more information, see [Schedule dynamic task bundling](#) or [Run a task bundling policy manually](#).

Create a task bundling rule

Create a task bundling rule to bundle tasks dynamically according to the selected parameters with Field Service Task Bundling.

Before you begin

To add rules to any policy other than the default policy, create a policy first. For more information, see [Create a task bundling policy](#).

[Enable the Field Service territory model](#) plugin when bundling tasks by territory.

Role required: admin

About this task

Task Grouping Rules can be applied on tasks only if the following conditions are met:

- Is in Draft State
- Not part of another bundle
- Not a bundle itself
- Not a vendor task

- Shouldn't have access hours
- Doesn't need a crew
- Doesn't have a fixed window
- Doesn't have dependent tasks

Procedure

1. Navigate to **All > Field Service > Dynamic Bundling Administration > Rules**.
2. Select **New**.
3. On the form, fill in the fields.

Task bundling rule form

Fields	Description
Name	Name of the rule.
Policy	Policy that this rule is grouped under. Note: To add rules to any policy other than the default policy, create a policy first. For more information, see Create a task bundling policy .
Order	Order of when this rule is applied relative to other rules within the policy.
Active	Option to make the rule active or inactive.

4. In the Grouping Conditions section, use the condition builder to create task filters that define the tasks that this rule targets.
5. **Optional:** Toggle **Advanced** to replace the condition builder with a **Script** field. Toggling **Advanced** replaces the condition builder with the following template:

```

/**
 * This scripted rule should return an array of sys_ids of
 * tasks joined using comma for each group that should be bundled
 * @param {String} taskType table name that contains the
 * taskIds
 * @param {String} taskIds comma-separated task sys_ids
 * representing a group of tasks
 * @returns {String[]} list of comma-separated task sys_ids
 * shown as below:
 * [
 * 'sys_id_1,sys_id_2,sys_id_3',
 * 'sys_id_4',
 * 'sys_id_5,sys_id_6,sys_id_7,sys_id_8'
 * ]
 */
(function executeRule(taskType, taskIds) {
    // your code goes here
})(taskType, taskIds);
    
```

6. Select **Preview Tasks** to preview all tasks that are affected by your rule.

7. Select **Submit**.

Add qualifiers to a task bundling policy

Add qualifiers to task bundling policies to define whether policies apply for either assignment groups or territories with Field Service Task Bundling.

Before you begin

Qualifiers are subcomponents of policies. For more information on how to create a policy, see [Create a task bundling policy](#).

Role required: admin

About this task

Qualifiers dictate which work order tasks are targeted for bundling. Qualifiers are required for policies to run.

Procedure

1. Navigate to **All > Field Service > Dynamic Bundling Administration > Policies**.
2. Open an existing policy.
3. In the **Qualifiers** related list, select **New**.
4. Select one of the following:
 - Enter an **Assignment Group** to assign the policy to an assignment group.
 - Enter a **Territory** to assign the policy to a territory.



Note:

Assignment Group appears by default. To replace with **Territory**, see [Enable the Field Service territory model](#).

5. Select **Submit**.

Schedule dynamic task bundling

Schedule dynamic bundling to run at a specified time with Field Service Task Bundling.

Before you begin

Role required: admin

About this task

Schedule and define the conditions used to bundle work order tasks dynamically. The schedule script only considers tasks in the **Draft** state when bundling.

Procedure

1. Navigate to **All > System Definition > Scheduled Jobs**.
2. Open **Schedule Dynamic Bundling Execution**.
3. Select **Active**.
4. **Optional:** Select **Conditional** to define the conditions used to run dynamic bundling. Toggling **Conditional** opens an empty **Condition** script field.
5. Select a Run type.

Note:

For more information on Run types, see [Automatically run a script of your choosing](#).

6. Select Update.**Run a task bundling policy manually**

Dynamic task bundling policies can be manually run from the policy record with Field Service Task Bundling.

Before you begin

A policy must have the following requirements to be run manually:

- Valid rules
- Valid qualifiers

Role required: admin

Procedure

1. Navigate to **All > Field Service > Dynamic Bundling Administration > Policies**.
2. Select an existing policy.
3. Select **Bundle Now**.

Configuring Appointment Booking

Set up appointment booking to allow customers and service providers to schedule and manage service appointments efficiently.

Appointment booking requires configuration at both the application level and the service level.

Note:

Both application-level and corresponding service-level configurations must be active for appointment booking to function properly.

Application-Level configuration

Appointment booking requires an active **application-level configuration** for Field Service Management. This configuration includes global settings that apply to all services supporting appointment booking within the application. Only a system administrator can create, modify, and enable an application-level configuration.

The appointment booking feature provides predefined application-level configurations:

- **Field Service Order Configuration**
- **Field Service Task Configuration**

Administrators can use these default configurations directly, modify them to meet specific business requirements, or use them as examples to create new application-level configurations.

Service-Level configuration

In addition to the application-level configuration, each service offering scheduled appointments must have its own active **service-level configuration**. A service-level configuration contains settings unique to that specific service.

Appointment booking administrators (appointment_booking_admin) can:

- Create new configurations for individual services.
- Modify existing service configurations as needed.
- Enable service configurations to activate appointment booking functionality.

i Important:

Upgrading to Yokohama may extend the upgrade maintenance time of a customer because of Appointment Booking. The Appointment Booking configuration tables (sn_apptmnt_booking_config, sn_apptmnt_booking_service_config, sn_apptmnt_booking_config_rule) get extended to the Application File [sys_metadata] table as a part of the upgrade.

After upgrading to Yokohama, re-parenting of the tables happens automatically, and the duration of the re-parenting depends on the number of records in various sys_metadata table and its dependent tables (sys_dictionary, sys_db_object, sys_documentation, sys_storage_alias).

For example, if the sys_metadata table roughly has 29,000,000 records, the time taken to re-parent the tables is approximately estimated to be 36 minutes. If the sys_metadata table roughly has 5,000 records, the time taken to re-parent the tables is approximately estimated to be 3 minutes.

Configuration overview

The steps for configuring appointment booking are:

1. Activate Appointment Booking

Activate the Appointment Booking feature by installing the required plugins.

2. Enable or disable appointment booking for an application

Enable or disable the appointment booking feature for an application as well as for services within the application that are provided to customers.

3. Create or modify an application configuration for Appointment Booking

Create or modify an appointment booking configuration for an application. The information stored in this configuration applies to all the services within that application.

4. Configure variables in a record producer for appointment booking

Create variables for the catalog item attributes within the appointment booking service configuration. Configuring distinct variables for location and user contact, enables you to specify both the location and contact details when booking an appointment on the calendar.

5. Configure an appointment booking record producer

Configure an appointment booking record producer and enable the appointment booking variable set to display the correct fields in that record producer.

6. Create or modify service configuration for Appointment Booking

Create or modify an appointment booking configuration for a service within an application that is provided to customers.

7. Create service configuration rules for a service configuration

Configure appointment booking rules for a service configuration, for example, Point-of-Sale-Installation, to enable varying duration of appointments for this service.

8. (Optional) [Configure daily and advanced schedules](#)

Create advanced appointment schedules to provide customers with precise time slots, or adjust the beginning day of the week on your booking calendar to align with your organization's scheduling preferences.

9. [Create a business rule to automatically generate appointment records from catalog item variables](#)

Create a before insert business rule on the service table to automatically add a variable for service catalog in the appointment booking table. This ensures that the variable record is visible on the appointment calendar for users when booking an appointment.

10. (Optional) [Enable or disable seismic Appointment Booking calendar](#)

Use the seismic appointment booking calendar across all user interfaces to ensure a consistent and seamless scheduling experience.

11. (Optional) [Enable and configure appointment slot recommendation](#)

Appointment Booking slot recommendation rules assist in identifying the optimal appointment times for customers. These recommended slots enable customers to efficiently choose the most suitable available appointment times.

12. (Optional) [Customize Appointment Booking email and SMS notifications](#)

The system administrator can customize email and SMS notifications for appointment confirmation and cancellation notices and appointment reminders.

13. (Optional) [Extension points in Field Service Management](#)

Use extension points to customize appointment booking configurations.

14. (Optional) [Use Appointment API for interacting with the appointment booking application.](#)

Use this API to book and reschedule appointments, check available appointment slots, and fetch appointment booking configuration details.

Related topics

[Manage appointments](#)

[Appointment booking components](#)

[Learn about appointment availability settings for an application configuration](#)

[Learn about task assignment methods for an application configuration](#)

Activate Appointment Booking

Activate the Appointment Booking feature by installing the required plugins.

Before you begin

Role required: admin

About this task

The Appointment Booking plugin (com.snc.appointment_booking) is activated automatically when you activate the Field Service Management plugin.

Ensure that the following plugins are activated:

- **Field Service Management:** Enables core Field Service Management capabilities. Activating this plugin automatically activates the Appointment Booking plugin.
- **Appointment Booking plugin:** Provides the capability to book and manage appointments for services.
- **Customer Service with Field Service Management Plugin:** Integrates Field Service Management with Customer Service Management to streamline appointment-related workflows.
- **Dynamic Scheduling** (Optional but recommended): Enables dynamic scheduling capabilities, bulk task recommendations, and interval-based auto-assignment. It also allows the use of the scripted availability method for advanced scheduling in Appointment Booking configurations.
- **Appointment Booking Demo data:** Installs demo data to help you set up and explore the Appointment Booking feature.

For more information on the components installed with Appointment Booking see, [Appointment booking components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the plugins using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Enable or disable appointment booking for an application

Turn the Appointment Booking feature on or off for an application and its individual services.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Appointment Booking > Appointment Booking Configuration**.
2. Select an application-level configuration.
 - To enable the appointment booking feature for work orders, select **Field Service Order Configuration**
 - To enable appointment booking for work order tasks, select **Field Service Task Configuration**

Note:

You can enable one or both configurations based on your requirement.

3. Do either of the following

- Select the **Active** check box to enable appointment booking for the application.
- Clear the **Active** check box to disable appointment booking for the application.

4. To enable or disable booking for specific services, click the name of a service in the **Appointment Booking Service Configuration** related list and set the **Active** check box to enable (select) or disable (clear) booking for that individual service.

5. Click **Update**.

Result

Appointment booking is enabled or disabled based on your configuration settings.

What to do next

[Create or modify an application configuration for Appointment Booking](#)

Create or modify an application configuration for Appointment Booking

Set up an application configuration to manage appointment booking settings across all services within your application. You can either create a new configuration or modify an existing one provided by Field Service Management.

Before you begin

Role required: admin

About this task

Field Service Management provides default application-level configurations:

- **Field Service Order Configuration** (for work orders)
- **Field Service Task Configuration** (for work order tasks)

You can modify these default configurations or use them as templates to create new configurations.

Procedure

- 1.** Navigate to **All > Appointment Booking > Appointment Booking Configuration**.
- 2.** Perform one of the following actions:
 - Select **New** to create a new configuration.
 - Click the name of an existing configuration to modify it.
- 3.** In the Appointment Booking Configuration form, fill in or modify the following fields as needed.

Appointment booking application configuration fields

Field	Description
Name	The name of the application configuration.
Task Table	Appointments are created for the tasks in the selected table. The Work Order [wm_order] table is the default table for the Field Service Order Configuration.

Field	Description
Availability Method	<p>Use one of the methods to determine appointment availability. The selection depends on the Field Service Management configuration setting in the Assignment method for tasks field:</p> <ul style="list-style-type: none"> ○ Number of appointments per slot: Sets a fixed number of available appointments per time slot. Recommended if task assignment is manual. ○ Scripted: Dynamically calculates availability based on Field Service Management settings. Recommended if auto-assignment or dynamic scheduling is used. This is the default setting. ○ Based on capacity: Calculates availability based on the capacity defined in the capacity management settings. For more information, see Create a capacity assignment <p>This option is available when the Task Table is selected as work_order and Field Service Capacity and Reservations Management plugin is installed.</p> <p>For more information on appointment availability methods, see Learn about appointment availability settings for an application configuration.</p>
Advanced Calendar view for Portal	Display appointments in categorized time slots (Morning, Afternoon, Evening) in the Select Appointment window on the portal.
Active	Select to activate the configuration and enable appointment booking.
Auto acceptance	Automatically accepts tasks assigned through appointment booking, overriding the manual accept/reject requirement of the task-driven process lifecycle. If the Field Service Management configuration setting for Process lifecycle is set to task-driven , an agent must accept or reject an assigned task. Enable the Auto acceptance check box to override this configuration setting for appointment booking.
Calendar View	Display available appointments in the Select Appointment window on the Customer or Consumer Service Portal for a single day or for a week.
Script	The script used to determine the number of available appointments.

4. Click Submit.

Result

The application configuration is created or modified. Appointment booking settings defined apply to all services associated with the selected task table.

What to do next

Create service configurations for each of the services available to the customers. For more information, see [Configure an appointment booking record producer](#).

Configure variables in a record producer for appointment booking

Create specific variables in a Service Catalog record producer to capture essential details such as location and contact information when users book appointments.

Before you begin

Role required: admin

Ensure you have an existing Service Catalog record producer to configure.

About this task

By configuring catalog item variables for appointment booking, you can:

- Clearly prompt users to specify accurate details like location and contact, ensuring efficient scheduling.
- Ensure appointment details are precise and complete, reducing errors or rescheduling.
- Simplify the booking process by guiding users with clearly defined variables and questions.

Procedure

1. Navigate to **All > Service Catalog > Catalog Definitions > Record Producers**.
2. Click the record producer you want to configure.
3. In the **Variable** related list, click **New**.
4. On the form, fill in the fields.

Variable New Record

Field	Description
Application	(Read-only) Automatically populated based on the application scope.
Type	Choose a supported variable type. If you use unsupported variables, Service Catalog might not integrate the data in the right format.
Catalog item	Catalog item that uses the variable.
Order	Define the display order of variables. Lower values appear first. For example, a variable with an order value of 1 is placed ahead of other variables with higher-order values.
Active	This is a read only field and is enabled based on the Publish, Retire, or Edit actions.
Mandatory	Select if users must provide a response when requesting the service. Note: You can adjust this dynamically through client scripts or APIs.
Question	Question that you can ask users ordering the catalog item, to obtain related information. For example, "Enter appointment location".
Name	Name to identify the question.

Field	Description
	<p>Note:</p> <p>If this field is empty, its value is auto-populated based on the Question field for all variable types except Break, Container Split, and Container End.</p>
Tooltip	Tooltip text to display when users point to the variable. Enter a brief note to describe the purpose of the question.
Example Text	<p>Example or hint text guiding users. You can use a hint for the following variables:</p> <ul style="list-style-type: none"> • Email • URL • Single Line Text • Multi-line Text • Wide Single Line Text
Type Specification	Provide additional information or configuration specific to the selected variable type.

5. Click **Submit**.

6. **Optional:** Repeat steps 3 through 5 to create additional variables for the same catalog item record producer.

Result

The service catalog record producer creates the new variable record in the selected table.

What to do next

After creating your variables, link them to the Appointment Booking table so they appear correctly in the booking calendar interface. For more information, see [Create a business rule to automatically generate appointment records from catalog item variables](#)

Configure an appointment booking record producer

Configure an appointment booking record producer and enable the appointment booking variable set to display the correct fields in that record producer.

Before you begin

Enable the appointment booking variable set to display the appointment selection widget on the record producer.

Role required: appointment_booking_admin, admin

About this task

A record producer is a specific type of catalog item that creates task-based records, such as appointment records, from the service catalog. Appointment booking supports both work order and task extended tables. You can use record producers to create the required task records before creating any appointment record. For more information, see [Record Producer](#).

The variable set **sn_appointment_variable_set** adds Calendar component to the catalog and record producer.

Procedure

1. Navigate to **All > Service Catalog > Catalog Definitions > Record Producers**.
2. Click the desired record producer.
3. In the **Variable Sets** related list, click **Edit**.
4. Select **sn_appointment_variable_set** and move it to the Variable Sets list.
5. Click **Save**.

Create or modify service configuration for Appointment Booking

Service-level appointment booking enables customers to easily schedule specific services by customizing appointment availability, lead times, notifications, and booking rules.

Before you begin

Role required: appointment_booking_admin, admin

Verify you have an active application configuration (**Field Service Order Configuration** or **Field Service Task Configuration**) set up. You can create service-level configuration within an application-level configuration.

About this task

To use the appointment booking feature, administrators must create a configuration for each service that is available to customers. In the service configuration, administrators can select a schedule from the **Schedules** list and set it as **Excluded** to exclude it from appointment availability.

Procedure

1. Navigate to **All > Appointment Booking > Appointment Booking Configuration**.
2. Select the desired configuration.
 - To configure appointment booking service for work orders, select **Field Service Order Configuration**
 - To configure appointment booking service for work order tasks, select **Field Service Task Configuration**
3. In the Appointment Booking Service Configuration related list, click **New**.
4. On the form, fill in the following fields as needed.

Appointment booking service configuration fields

Field	Description
Enable advanced configuration	Option to configure different schedule on a day level when booking appointments.
Active	Activates appointment booking for the service. Note: If deactivated, customers cannot schedule appointments for the service but can still create work orders.
Ignore Default Notifications	Sends notifications to customers.

Field	Description
	<ul style="list-style-type: none"> ○ FALSE (default): Notifications are sent to the customer whenever an appointment is scheduled, rescheduled, or canceled. ○ TRUE: No notifications are sent.
General Information	
Name	The name of the service configuration.
Configuration	The name of the appointment booking configuration to which this service belongs.
Availability table	The table that is used to calculate appointment availability. The default is the Work Order Task [wm_task] table.
Holiday Schedule	<p>The holiday schedule to use when determining availability. Appointment booking evaluates the holiday schedule when determining the number of available appointments and excludes any day in the schedule that is set to Exclude. Click the lookup icon and select a schedule from the Schedules list.</p> <p>Note: Holiday schedules are useful when the assignment method for tasks is set to manually, which does not consider agent schedules.</p>
Catalog Information	
Catalog Item	<p>Select the catalog item (service) for which this configuration applies.</p> <p>Note: The catalog item must exist in the service catalog.</p> <p>Before configuring appointment booking with work orders, ensure you create a work order template. Similarly, if you are using appointment booking with work order tasks, create a work order task template first.</p>
Location	<p>Field from the record producer that specifies the appointment location.</p> <p>Ensure that this field not left blank and is filled with the appropriate location to avoid issues when rescheduling an appointment.</p>
Appointment is mandatory	<p>Enable this check box if it is mandatory that a customer create an appointment when requesting this service.</p> <ul style="list-style-type: none"> ○ If enabled, the Appointment field appears on the record producer and the user must select an available appointment on the Select Appointment window before submitting the service request. ○ If disabled, the user can submit the service request without selecting an appointment.
User contact	<p>The field on the record provider that determines the individual for whom the appointment is being created. This is a reference field that looks for a sys_user variable and sets variable on the record producer, for example, Contact.</p> <p>Ensure that this field not left blank and is filled with the appropriate value to avoid issues when rescheduling an appointment.</p>

Field	Description
Timezone	Appointment timezone (user contact or task location timezone).
Booking	
Appointments per window	Number of available appointments per time slot. Applies primarily for manual assignment . This setting does not apply for auto-assignment or dynamic scheduling , unless a location is not provided. Then, the configuration defaults to the number of appointments per window.
Lead time	Minimum time in hours or days required in advance for customers to book an appointment. Default time is 4 hours.
Future bookable max days	The number of days in advance of the current day for which an appointment can be booked for this service. The default is 14 days.
Reschedule / Cancel by time	The number of hours or days prior to an appointment when cancellation or rescheduling is permitted. The Cancel button is not available if a user attempts to cancel or reschedule an appointment within this time. The default is 4 hours.
Ignore lead time on reschedule	Select to skip lead-time validation when rescheduling appointments.
Consider holidays for lead time calculation	Select to exclude holidays to calculate booking lead times when displaying available appointment booking slots. For example, if a holiday occurs during the lead time calculation period, the system skips the holiday and calculates the lead time using the next available working day.
Appointments	
Appointment window	The duration of the appointment window. Note: Allow enough time for the work to be started and completed within this window.
Use slot end time as	Select whether the agent should arrive by or complete the job before the window end time.
Work duration	Estimated time needed to complete all tasks created by the record producer. This duration is set for a task when it is created. Work duration is used to determine appointment availability.
Travel duration (round trip)	Average round-trip travel time to the appointment location. Travel duration is used to determine availability.
Daily Schedule	
Bookable days	The days of the week for which appointments can be booked. The default is Monday through Friday.
Daily start time	The start of the work day and the earliest start time for an appointment window.
Daily end time	The end of the work day and the latest end time for an appointment window.
Include daily break	Enable this check box to schedule a break for each bookable day, then select the break start and end times. Can define one break which applies to all days.

Field	Description
Appointment booking preview	Provides a preview of the appointment windows and times based on the selected start and end times, break time, and appointment window.
Recommendation Configuration	
Maximum slots to recommend	The maximum number of recommended slots. This field is available only if the Advanced Appointment Booking (com.snc.advanced_appointment_booking) plugin is activated.
Recommendation score	Indicates the minimum score to recommend a slot. Enter a value between 0 and 1. This field is available only if the Advanced Appointment Booking (com.snc.advanced_appointment_booking) plugin is activated.

5. Click **Submit.**

Result

The service-level appointment booking configuration is set up or updated. Users can book appointments based on these customized settings.

What to do next

For further customization, you can create **service configuration rules** to define specific booking conditions or exceptions for individual locations or scenarios. For more information, see [Create service configuration rules for a service configuration](#).

Create service configuration rules for a service configuration

Configure appointment booking rules for a service configuration, for example, Point-of-Sale-Installation, to enable varying duration of appointments for this service.

Before you begin

Role required: admin

About this task

Service Configuration Rules are used to define which advanced configuration applies for which specific use case of the service.

Procedure

- 1. Navigate to **All > Appointment Booking > Appointment Booking Configuration**.**
- 2. Select the desired configuration.**
 - Select **Field Service Order Configuration** to create appointment booking service configuration rules for **work orders**.
 - Select **Field Service Task Configuration** to create appointment booking service configuration rules for **work order tasks**.
- 3. In the Appointment Booking Service Configuration related list, select a service configuration to which you want to add rules.**
- 4. Select **Enable advanced configurations** check box if not already selected.**
- 5. In the Service Configuration Rules related list, click **New**.**
- 6. On the form, fill in the fields.**

Service Configuration Rule form

Field	Description
Name	Name of the service configuration rule.
Service configuration	<p>The name of the service for which you are configuring rules. This field is automatically set to the name of the service configuration, for example, Point-of-Sale Installation.</p> <p>Note: The Point-of-Sale-Installation is available only for Field Service Order Configuration.</p>
Task Table	The table where appointment booking rules are created for the selected service configuration. This field is automatically populated with the Work Order [wm_order] or Work Order Task [wm_task] table, based on the selected application configuration, to configure service rules.
Task Conditions	Apply conditions to help determine the best matched appointment slot for a service provided to the customer. When the conditions are met, this service configuration rule is applied, and the default configuration is overridden by the advanced configuration.
Lead time	Number of hours or days from the current time after which an appointment can be booked based on this service configuration rule. Define the lead time in hours or days. The default is four hours.
Ignore lead time on reschedule	This option skips the calculation of lead time mentioned beforehand when rescheduling an appointment.
Reschedule/Cancel by time	<p>The number of hours or days prior to an appointment start time that are required for an appointment to be canceled or rescheduled. The default is 4 hours.</p> <p>Note: The Cancel button is not available within this number of hours.</p>
Dedicated appointments per slot	An option to make it mandatory to include a certain number of appointments in each slot.
Active	Option to set the application service configuration rule.

Field	Description
Order	Order in which the service configuration rule must be executed. A rule with a lesser order is executed first.
Max bookable days in future	Number of days in advance of the current day for which an appointment can be booked for this service. The default is 14 days.
Appointments per window	Number of available appointments for each configured appointment time slot. This number determines the number of available appointments that are displayed on the Select Appointment window. Enter a number in this field if the assignment method for tasks is set to manually. If set to either using auto-assignment or using dynamic scheduling, this setting does not apply, unless a location is not provided. Then the configuration defaults to the number of appointments per window.

7. Click **Submit**.

Result

The service configuration rules are configured and provides varying duration of appointments for the service.

What to do next

Create an appointment booking advanced configuration for this service configuration rule. For more information, see [Create appointment booking advanced configuration](#).

Configure daily and advanced schedules

Create advanced appointment schedules to provide customers with precise time slots, or adjust the beginning day of the week on your booking calendar to align with your organization's scheduling preferences.

The optional steps to configure appointment schedules are:

1. [Create appointment booking advanced configuration](#)
2. [Set the starting day of the week on the appointment booking calendar](#)

Create appointment booking advanced configuration

Create advanced appointment schedules to offer customers specific time slots—like Morning, Afternoon, and Evening—for scheduling appointments. Advanced schedules let you customize availability to meet unique business needs.

Before you begin

Role required: sn_apptmnt_booking.appointment_booking_admin

Ensure you have already created a **Service Configuration** and enabled the **Advanced Configuration** option.

About this task

For each service, you can define multiple advanced schedules that override the default availability, based on conditions specified in service configuration rules.

Procedure

1. Navigate to **All > Appointment Booking > Appointment Booking Configuration**.
2. Choose the desired configuration.
 - To configure different appointment schedules for work orders, select **Field Service Order Configuration**
 - To configure different appointment schedules for work order tasks, select **Field Service Task Configuration**
3. In the Appointment Booking Service Configuration related list, click a service configuration to which you want to configure different appointment schedules.
4. Select **Enable advanced configurations** check box if not already selected.
5. In the Advanced Configurations related list, click **New**.
6. On the form, fill in the fields.

Advanced Configuration form

Field	Description
Name	Descriptive name of the configuration, such as Morning, Afternoon, or Evening.
Active	Option to activate the advanced schedule.
Start date	Start date of the appointment booking window.
End date	End date of the appointment booking window.
Daily start time	The start of the work day and the earliest start time for an appointment window.
Daily end time	The end of the work day and the latest end time for an appointment window.
Bookable days	The days of the week for which appointments can be booked. The default is Monday through Friday.
Service configuration	<p>The name of the service configuration for which you are scheduling configurations on an advanced level, for example, Point-of-Sale Installation.</p> <p>Note: The Point-of-Sale Installation is available only for the Field Service Order Configuration.</p>
Rule	The name of the service configuration rule based on which you are scheduling configurations on an advanced level.
Work duration	Estimated time needed to complete the tasks created by the record producer. Work duration for a task is set when the task is created and is used to determine the availability.

Field	Description
Travel Duration (round trip)	Average round-trip travel time for the assigned agent. Travel Duration is used to determine availability. The default time is 15 minutes.
Appointment window	Duration of each appointment slot. Note: Allow enough time for the work to be started and completed within this window.
Appointments per window	Number of appointments available per slot. Applicable primarily for manual task assignment method. This number determines the available appointments that are displayed on the Select Appointment window. If the task assignment method is either auto-assignment or by dynamic scheduling, this setting does not apply unless you provide a location. The configuration defaults to the number of appointments per window if the location is not provided.
Include daily break	Enable to schedule a consistent daily break period. Select the break start time and end time. You can define one break which applies to all the days.
Appointment booking preview	Provides a preview of the appointment windows and times based on the selected start and end times, break time, and appointment window.

7. Click Submit.

Result

The advanced appointment schedule is active. Customers can select specific time slots such as morning, afternoon, or evening appointments based on this configuration.

Set the starting day of the week on the appointment booking calendar

Customize the starting day of the week on your appointment booking calendar to match your organization's scheduling preferences. By default, the calendar week starts on Sunday, but you can easily set it to any day (e.g., Monday) or revert it if needed.

Before you begin

Role required: admin

Procedure

1. Navigate to **All** and search for `sys_properties.list`.
2. Search for the property `glide.ui.date_picker.first_day_of_week`.
3. Choose one of the following:

- If the property already exists, select it to edit.
- If the property doesn't exist, create it.

a. Select **New.**

b. Enter `glide.ui.date_picker.first_day_of_week` in the **Name field.**

c. Set **Type to **Integer**.**

4. In the **Value field, enter the integer that corresponds to your desired starting day.**

Values that correspond to days of the week

Value	Day of the week
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday

For example, to start your calendar week on Monday, enter 2.

5. Select **Submit.**

Result

The appointment booking calendar displays your selected starting day of the week.

Create a business rule to automatically generate appointment records from catalog item variables

Automatically generate appointment records from catalog item variables using a business rule. Creating this automation ensures the appointment details provided by users through the Service Catalog appear on the appointment calendar.

Before you begin

Role required: admin

Ensure you have already created appropriate catalog item variables, such as appointment location or user contact.

About this task

By creating a business rule, you can:

- Automatically creates appointments as soon as users submit a service request.
- Ensure user-provided appointment details (like location and contact) are immediately visible in the calendar.

Procedure

1. Navigate to **All > System Definition > Business Rules**.
2. Click **New**.
3. In the **Name** field, enter your business rule name.
4. Select your service table from the **Table** list.
5. Select **Advanced**.
6. On the **When to run** tab, in the **When** condition select **before** and select the **insert** check box.

This ensures your rule runs before new records are inserted into the table.

7. On the **Advanced** tab, specify your condition in the **Condition** field.
For example, add `current.variables.sn_apptmnt` in the **Condition** field.
8. Enter the script in the **Script** field that you want to run when the defined condition is true.
For example, add the below script to creates appointment record.

```
(sn_apptmnt_booking.AppointmentBooking_Factory().getWrapperType
(sn_apptmnt_booking.AppointmentBookingConstants.APPOINTMENT_BOO
KING_IMPL);
    var sn_appointmentJSON = JSON.parse(sn_appointment);
    // creating an appointment <br>
    var appointmentId =
    helper.submitAppointmentFromPortal(sn_appointment,
    current, sn_appointmentJSON.config.opened_for,
    sn_appointmentJSON.config.location,
    current.short_description);
)
```

9. Click **Submit**.

Result

The business rule is created. Whenever a customer submits a service request with an appointment variable, an appointment record automatically generates and appears in the appointment calendar.

Enable or disable seismic Appointment Booking calendar

Use the seismic appointment booking calendar across all user interfaces to ensure a consistent and seamless scheduling experience.

Before you begin

Role required: admin

About this task

Seismic Appointment Booking calendar is enabled by default, but can be disabled if required.

Enhance scheduling support for appointment slot recommendations, customized themes, and an improved user interface.

Procedure

1. Navigate to **All** and search for `sys_properties.list`.
2. Search for the property `sn_apptmnt_booking.use_unified_appt_widget`.
3. In the **Value** field:

- Enter true to **enable** the Seismic Appointment Booking calendar.
- Enter false to **disable** the Seismic Appointment Booking calendar.

4. Select **Update**.

Result

Users will experience appointment scheduling based on your configuration setting.

Enable and configure appointment slot recommendation

Appointment Booking slot recommendation rules assist in identifying the optimal appointment times for customers. These recommended slots enable customers to efficiently choose the most suitable available appointment times.

The steps to enable and configure Appointment Booking slot recommendation are:

1. [Enable appointment booking slot recommendation](#)
2. [Create or modify an appointment booking slot recommendation rule](#)
3. [Add selection criteria for an appointment slot recommendation rule](#)

Enable appointment booking slot recommendation

Appointment booking slot recommendations help users quickly select the best available appointment times based on your configured scheduling rules.

Before you begin

Role required: admin

Procedure

1. Navigate to **All** and search for `sys_properties.list`.
2. In the properties list, search for the property `sn_adv_apptmnt.show_recommended_slots`.
3. Set the **Value** as follows:
 - Enter true to **enable** slot recommendations.
 - Enter false to **disable** slot recommendations.

4. Select **Update**.

Result

Appointment booking slot recommendation is enabled or disabled based on your selection, and you will see recommended appointment slots accordingly.

Create or modify an appointment booking slot recommendation rule

Appointment booking slot recommendation rules help you highlight the best appointment slots for your customers. Using these rules, you can categorize available appointment slots as recommended or available based on conditions you define, such as proximity, resource availability, or customer preferences.

Before you begin

Role required: admin

About this task

Appointment Booking uses appointment slot recommendation rules to categorize the available slots for a service into recommended slots and available slots. Slot recommendation rules let you control how the appointment booking slots should be categorized.

An appointment slot is designated as a recommended slot if it meets the conditions defined in the rule.

By creating slot recommendation rules, you can

- Guide customers to the most suitable appointment slots.
- Prioritize slots to optimize service efficiency.
- Create multiple rules to precisely match your organization's scheduling goals.

When seismic appointment booking Calender is activated, it uses these recommendation rules to display the recommended slots for a service.

Field Service Management provides default slot recommendation rule, known as the **Appointment slot recommendation rule**. You can modify this default rule or use it as a template to create new rules.

Procedure

1. Navigate to **All > Appointment Booking > Recommendation rules**.
2. Create or modify a rule.
 - To create a new rule, select **New**.
 - To modify a rule, select the rule name.
3. In the form, fill the fields.

Recommendation rules form

Field	Description
Name	Name of the slot recommendation rule.
Active	Select to activate the recommendation rule.
Execution Order	Set the priority for the recommendation rule. <ul style="list-style-type: none"> ○ Rules with lower execution order values run first. ○ Higher values run later to further refine the recommendations.
Table	Select the table to apply this rule to. The default table is Appointment Booking Service Configuration .
Conditions	Define the conditions slots must meet to be recommended. For example, proximity or specific resource availability.

4. Select **Submit**.

Result

Your appointment booking slot recommendation rule is created or updated. Appointment slots are categorized as recommended based on your specified conditions.

What to do next

Enhance appointment booking by adding selection criteria to your recommendation rules. Selection criteria help determine the best appointment slots to recommend to your customers, ensuring optimal scheduling based on factors like proximity, skill availability, or travel time. For more information, see [Add selection criteria for an appointment slot recommendation rule](#).

Add selection criteria for an appointment slot recommendation rule

Enhance appointment booking by adding selection criteria to your recommendation rules. Selection criteria help determine the best appointment slots to recommend to your customers—ensuring optimal scheduling based on factors like proximity, skill availability, or travel time.

Before you begin

Role required: admin

Ensure a recommendation rule already exists, or create one first.

About this task

By adding selection criterion for an appointment slot recommendation rule, you can

- Offer customized recommendations based on specific factors, improving their scheduling experience.
- Automatically prioritize slots based on what matters most, such as minimizing travel or matching customer needs.
- Adjust how appointment slots are prioritized and displayed to users.

Procedure

1. Navigate to **All > Appointment Booking > Recommendation rules**.
2. Select a recommendation rule.
3. In the **Select Criterion** module, select **New**.
4. On the form, fill the fields.

Select Criterion

Field	Description
Criterion	<p>Select a criterion to recommend appointment slots.</p> <p>Field Service Management provides a default selection criterion Proximate appointments that recommends slots based on the appointment location.</p> <p>You can use this criterion or create a new one.</p> <p>Note: The criterion should be a scripted criterion.</p>

Field	Description
Matching rule	Name of the recommendation rule to which this selection criterion applies.
Use for	Select how the criterion should be used. <ul style="list-style-type: none"> ○ Ranking and Display: Rank and visibly display the criterion. ○ Display Only: Display the criterion without affecting rank. ○ Ranking and No Display: Rank without visibly displaying the criterion.
Order	Order of execution of the selection criterion.
Ranking Method	Select how to rank the criteria. <ul style="list-style-type: none"> ○ More is better: Higher values receive higher rank (for example, more skill matches). ○ Less is better: Lower values receive higher rank (for example, shorter travel time).

5. Select Submit.

Result

The selection criterion is added successfully to the recommendation rule.

Customize Appointment Booking email and SMS notifications

Customize email and SMS notifications for appointments. These notifications help users stay informed and engaged throughout the appointment scheduling process—providing clear confirmations, reminders, cancellations, and rescheduling notices.

An email and SMS notification for an appointment includes task information, such as the task number and description, as well as the appointment time. It can also include a link that enables the user to reschedule or cancel the appointment.

System administrators can configure both email and SMS notifications using the following appointment booking email templates.

- appointment.confirmed
- appointment.cancel
- appointment.reschedule

These templates come included with the appointment booking plugin. You can customize them to meet specific requirements. For more information, see [Create an email notification](#).

Note:

Ensure to install Customer Experience plugin to configure SMS. For more information, see [Activate Field Service Management Customer Experience](#).

Appointment booking email and SMS notifications are active for all services using the appointment booking feature. The following email notifications are included with the appointment booking feature:

Email notification types

Email notification type	Description
Appointment Confirmation	Sent to the customer once the task for an appointment has been assigned to and accepted by a technician. If acceptance by the technician is not required, the notification is sent to the customer when the task is assigned.
Appointment Cancel	Sent to the customer when an appointment is canceled. Can include task information and also a reason for the cancellation.
Appointment Reschedule	Sent to the customer when an appointment is rescheduled.

Configuring Multi-day scheduling

Field Service Multi-day task scheduling helps dispatchers manage tasks that require more than a single workday to complete.

Configuration overview

As an administrator, you can install the Field Service Multi-Day Task Scheduling application to enable scheduling of work order tasks across multiple days. You can activate the Field Service Multi-Day Task Scheduling plugin (com.snc.fsm_multiday_tasks) for Field Service.

Multi-day task scheduling

This system is adept at handling complex tasks that need extended time, verifying that everything is organized and efficient.

- **Agent availability and scheduling:** The system checks the availability of agents, their work hours, and even their break times to assign tasks in the most efficient way possible. It supports both manual and dynamic scheduling options along with Schedule Optimization, providing flexibility in how tasks are assigned.
- **Locking in agents for Multi-day tasks:** Once an agent is assigned a task that spans multiple days, the system locks the agent's schedule for that duration and no other tasks are assigned to the agent during this time. Even if a higher priority task comes up, the agent remains committed to the multi-day task. This ensures that the multi-day tasks aren't interrupted, helping to maintain continuity and efficiency until completion.

Example: Multi-day Task Scheduling

In disaster recovery operations, a cleanup task may require a 20-hour commitment. With multi-day scheduling, the task can be distributed across three days, ensuring that agents aren't overworked or idle, which in turn maximizes productivity and well-being. The agents who are involved in this task are locked and aren't available for other assignments during these three days.

Activate Field Service Multi-Day Task Scheduling

Install the Field Service Multi-Day Task Scheduling application to enable scheduling of work order tasks across multiple days. You can activate the Field Service Multi-Day Task Scheduling plugin (com.snc.fsm_multiday_tasks) for Field Service if you have the admin role.

Before you begin

- Field Service Multi-Day Task Scheduling requires you to install the Field Service Management plugin. For more information about activating Field Service Management, see [Activate Field Service Management](#).

Role required: admin.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Multi-Day Task Scheduling plugin (com.snc.fsm_multiday_tasks) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Result

The Field Service Multi-Day Task Scheduling plugin when activated successfully adds the following attributes:

- The **Assign across the schedule entries** option is added to the work order task form.
- The *sn_fsm_multiday.minDurationForFirstWorkSchedule* property is added to the Field Service Dynamic Scheduling Properties page. For more information about enabling a dynamic scheduling property, see [Properties installed with Field Service Management](#).
- The *sn_fsm_disp_wrkspc.dispatcher_workspace.enableTwoAndFourWeeks* property is added to the Field Service Dispatcher Workspace set of properties. For more information about enabling a Workspace Settings property, see [Configure settings for Dispatcher Workspace](#).

Setting up Soft Booking

Soft Booking allows dispatchers to schedule tasks without triggering immediate notifications or downstream workflows. This feature provides dispatchers with a "planning buffer" to optimize agent schedules before confirming tasks.

Soft Booking enables dispatchers to design an optimal automated scheduling solution without notifying the assigned agent or triggering assignment workflows right away. Field service agents receive notifications on their work order tasks only when dispatchers confirm work assignments, ensuring that schedules are well-planned and efficient.

Configuration overview

As an administrator, you can enable the 'Use scheduled state' from All > Field Service Administration > Configuration. Modify the Update task state from Scheduled to Assigned property. By default, tasks scheduled within the next 12 hours are set to "Assigned".

When enabled, a new state "Scheduled" appears in work order request and task records (state sequence varies based on whether qualification is enabled or not).

Turning off Use scheduled state moves all tasks from Scheduled to Assigned. A prompt appears indicating this shift. Be cautious when turning the Use scheduled state property on or off, as it affects all tasks in the Scheduled state.

Related topics

[Configure the Scheduled state](#)

Configuring Intraday schedule automation

Intraday schedule automation updates agents schedules to maximize productivity during their shift.

Configuration overview

1. Activate intra-day schedule automation

Administrators must activate the intra-day schedule automation plugin before changing any values.

2. Copy intraday schedule automation flows

Copy the intra-day schedule automation flows and change only the copies. This practice ensures that you can copy the originals again if something happens to the versions you configure.

3. (Optional) Change the value for agents being considered early or late

Update the value that triggers a notification to the dispatcher indicating whether an agent is early or late.

4. (Optional) Change the time that determines whether an agent has acted

Update the value that determines whether an agent has acted.

5. (Optional) Delete a flow [↗](#)

If you do not need a flow installed with intra-day schedule automation, you can delete it.

6. Activate a flow [↗](#)

Activate the flows when you want to add the configurations to your instance.

Activate intra-day schedule automation

You can activate the Field Service Management Scheduling Automations plugin (com.snc.sn_app_fsm_scheduling_flows) for Field Service Management if you have the admin role. After the plugin is installed, three flow designer flows and nine subflows are added to your instance.

Before you begin

Role required: admin

About this task

For more information, see [Intra-day schedule automation flows and subflows](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Management Scheduling Automations plugin (com.snc.sn_app_fsm_scheduling_flows) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .


Copy intraday schedule automation flows

Duplicate the three intraday schedule automation flows installed with the Field Service Management Scheduling Flow Designer Flows plugin so if something breaks in the flows you activated, you can copy the originals again.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Process Automation > Flow Designer**.
2. Select the flow that you want to copy.
3. Click the More actions icon () in the top right and select **Copy flow**.
4. Enter a name for the copied flow or retain the default.

Note:

The default name is the name of the flow you're copying with the word "Copy" added to the end.

5. In the **Application** field, select **Field Service Management Scheduling Flow Designer Flows**.
6. Select **Copy**.
A copy of the flow opens with the information you entered.

Related topics

[Intra-day schedule automation flows and subflows](#)

Change the value for agents being considered early or late

Change the value that determines whether an agent is early or late.

Before you begin

Role required: admin

About this task

By default, agents are considered early or late if they're 30% early or late from the specified time. For example, if an agent is 18 minutes late to a one-hour task would be 30% late. You can change this percentage value. You can also switch from using a percentage to using minutes.

⚠ Warning:

Don't change any values related to the conditions or check types. Doing so will break the flows.

Procedure

1. Navigate to **All > Process Automation > Flow Designer**.
2. Select the **Work order task progressed** flow.
3. Set the value to minutes by entering a minutes value and setting the percentage value to 0.
4. Set a different percentage by changing the percentage value.

📘 Note:

Percentage is prioritized over minutes. If the percentage fields have a value other than 0, then percentage is used as the value even if a minutes value has been set.

5. Select **Save**.

Change the time that determines whether an agent has acted

Fine-tune the amount of time that determines whether an agent has acted when scheduled.

Before you begin

Role required: admin

About this task

The Agent Not Take Action flow is made up of three subflows that determine whether an agent acted when scheduled to based on the time values.

⚠ Warning:

Don't change any values related to the conditions or check types. Doing so breaks the flows.

Procedure

1. Navigate to **All > Process Automation > Flow Designer**.
2. Choose the subflow that you want to edit.
 - FSM wait for travel start.
 - FSM wait for work complete.
 - FSM wait for work start.
3. Select the action **Wait for 30 minute(s) after**.
4. Change the value from 30 to the new value.
5. Select **Save**.


Change the recipients of notifications for intraday schedule automation

You can change who receives notifications related to intraday schedule automation, so only the necessary recipients receive the notifications. For example, if an agent is late for a task, you can configure notifications to only be sent to the dispatcher.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Process Automation > Flow Designer**.
2. Select the flow that you want to change the notification recipients for.
3. Select the subflow, and then the notification trigger.
4. Select **Edit subflow**.
5. Select the Data Pill Picker icon  for the field you want to change the recipients of intraday schedule automation notifications.

Note:

By default intraday schedule automation sends notifications to everyone in the dispatch group that the agent is a member of.

6. Select **Publish**.

Configuring Auto Assignment scheduling

The auto assignment feature can be enabled for requests or tasks, depending on the Service Management (SM) application's configuration settings.

Configuration overview

When auto assignment is enabled and a task is qualified or marked as **Ready for Work**, an appropriate agent is automatically assigned to the task and it is moved to the **Assigned** state. If the task cannot be auto-assigned, a user with the dispatcher role must adjust the values in the request or task form and then save the record.

- If the **Requests are assigned via auto-assignment** option is enabled, requests are automatically assigned.
- If the **Tasks are assigned via auto-assignment** option is enabled, the tasks in a request are automatically assigned.

Auto assignment criteria

The system uses the following criteria to assign agents automatically.

Auto assignment criteria

Option	Description
Geolocation	You can configure whether an agent's home location should be considered when auto-assigning a task. To calculate the estimate time it takes for an agent to get to the task location, consider the following:

Auto assignment criteria (continued)

Option	Description
	<ul style="list-style-type: none"> • If the Use Google Maps API for travel time estimates geolocation property is enabled, then you can select Google Maps API or straight-line estimates in the properties for calculating estimated travel time and distance. • If the Use Google Maps API for travel time estimates is not enabled, then the system uses the value in the Estimated Travel Duration field in the work order task to determine task assignment for the agent. • For more information, see Components installed with Field Service Management. <p>Note: Set up the following configurations:</p> <ul style="list-style-type: none"> • Enable Use agent or task scheduling to calculate the estimated time to arrive. • Enable Auto-selection of agents will consider location of agents to configure the agent's home location. <p>For more information about enabling the configurations, see Global domain configurations.</p>
Skills	<p>You can configure whether an agent's skills should be considered when auto-assigning a task.</p> <p>If you are assigning tasks to agents based on mandatory skills requirements, you cannot auto-assign tasks if the agent does not have the mandatory skills required to perform the task.</p> <p>Note: The <code>work.management.use.mandatory.skills</code> system property must be enabled to configure the agent's skills.</p>
Availability	<p>Auto-assignment considers an agent's existing schedule when auto-assigning additional tasks.</p>
Task windows	<p>Auto-assignment attempts to schedule within configured task windows. If a window cannot be scheduled for any available agents, auto-assignment fails.</p>
Task dependencies	<p>Auto-assignment considers any predecessor (upstream) task dependencies when auto-assigning a task.</p> <p>Auto-assignment supports Finish to start advanced dependency with no minimum or maximum lag time, when Field Service Task Dependency (<code>com.snc.fsm_task_dependency</code>) plugin is activated.</p>
Agent schedules	<p>Auto-assignment considers agents schedules from Workforce Optimization for Field Service application to auto-assign a task only if the Enable Shift Scheduling for FSM to Determine Availability property is enabled. For more information, see Global domain configurations.</p>

Auto assignment of a request and a task

Automatically assign a task to a dispatch group when the **Requests are assigned using auto-assignment** option is set in the SM application's configuration.

Before you begin

Role required: wm_qualifier, wm_initiator

Procedure

1. In any SM application, do one of the following:
 - Open a request in the **Awaiting Qualification** state, or one that has been qualified automatically, and then open a task in the **Draft** state.
 - Open a task in the **Ready for Work** state.
2. Select an **Assignment group**.
3. If the **Tasks are assigned via auto-assignment** and **Auto-selection of agents will consider location of agents** configuration options are set, enter a location.

Auto-dispatch will fail unless the task contains a valid location.

4. If the **Tasks are assigned via auto-assignment** option is enabled, create a schedule for this task in the **Planned** section, or let the system determine the times.

By default, ServiceNow enters the current date and time in the **Window start** field. If you do not create a schedule or a fixed window, ServiceNow uses the **start** value to look for an agent who has that time slot open.

For instructions, see [Creating Work Order Tasks](#).

5. Click **Qualified** or **Ready for Work**.

The view returns to the previous page, and a success message appears. The system assigns an agent to the task, enters the agent's assignment group in the task record, and moves the state to **Assigned**.

If auto-assignment fails, the message indicates either that no agent was available or that the task did not specify a location. The system moves tasks that fail auto-assignment to the **Remain in the Pending Dispatch** state.

6. To auto-assign a task that failed previously, enter any missing information or change the schedule, and save the record.

Setting up Field Service Mobile Agent

Setting up the Field Service mobile application involves configuring the Mobile Agent application, customizing UI actions, and other functionalities to enable task management from your phone or other mobile device.

The Field Service Management application includes the Field Service Mobile plugin (com.sn_fsm_mobile) by default. This plugin enables the Field Service mobile application's functionality within your Field Service Management application.

Note:

The mobile plugin must be installed.

You can configure the following functionalities within this mobile application to ensure an optimized mobile experience for your Mobile Agent application instance, empowering agents and dispatchers to work efficiently from any location:

- Customize system and mobile properties to tailor the mobile experience according to your organization's requirements. This includes configuring settings such as display options, permissions, and access controls.
- Enable the outsourced service provider to manage tasks on mobile devices. This functionality allows contractors to access and manage their assigned tasks, ensuring seamless collaboration and efficient task execution.
- Utilize the task briefing feature using the virtual agent capability. This enables agents to receive briefings and instructions for their tasks directly through the mobile application, ensuring they have all the necessary information to complete their assignments effectively.
- Implement indoor way finding functionality within the mobile application. This enables agents to navigate complex indoor environments more easily, improving their efficiency and reducing response times.

Configuration overview

The steps for setting up Field Service Mobile Agent are:

1. Configure the Now Mobile Agent application

Configure the Mobile Agent application and customize it for field service agents and dispatchers.

2. Field Service Contractor for mobile feature of the Now Mobile Agent application

The Field Service Contractor for mobile feature of the ServiceNow Agent application enables contractors to manage work order tasks.

3. Configuring Field Service Virtual Agent Conversations

ServiceNow[®] Virtual Agent for Field Service Management enables field service agents to get quick answers to their work-related queries by interacting with a virtual agent through the Now Agent mobile application.

4. Configuring Site Mapping for Field Service Management

Site Mapping for Field Service Management helps agents navigate job sites when their tasks are in large indoor facilities.

5. Activate Sidebar for the Field Service Mobile Agent application

You can activate the Sidebar for Field Service Management plugin (com.sn_fsm_sidebar) for Field Service Management if you have the admin role. Activating this plugin enables the Sidebar feature on the Mobile Agent application.

6. Configuring push notifications for task assignment

Configure notifications to ensure agents and dispatchers receive timely updates and alerts on their mobile devices. This feature keeps them informed about important tasks and changes in real-time.

Configure the Now Mobile Agent application

Configure the Now Mobile Agent application and customize it for field service agents and dispatchers.

Before you begin

Ensure that the mobile plugin is installed.

Role required: admin

Procedure

1. Navigate to **All > System Applications > ServiceNow Studio**.
2. In the **Home** screen, search and select **Field Service Mobile** under the **Applications** tab.
3. In the **Select Application** screen, select **Field Service Mobile**.
4. Customize the application to display the desired widgets and fields on the mobile application instance.
5. Follow these steps to configure the Now Mobile Agent application.

- a. [Connect to your Field Service data](#)

Connect the Now Mobile Agent application to your Field Service application instance to manage work on your mobile device.

- b. [Configure UI actions in the Now Mobile Agent application](#)

Enable or disable the desired UI actions on the mobile device to minimize the load on the mobile resources.

- c. [Customizing UI actions for the Now Mobile Agent application](#)

Make it easier for your end users to get things done faster with the Field Service mobile application by creating custom UI actions.

- d. [Configuring push notifications for task assignment](#)

Assign tasks and send reminders to customer service agents and field technicians using push notifications.

- e. [Configure scheduled offline caching](#)

Configure system components to automatically download the cache in the background.

- f. [Configure the recently closed work order tasks list](#)

Configure the number of recently closed work order tasks to display in the **Recently Closed Tasks** list in the Now Mobile Agent application.

- g. [Configure special handling notes for the Now Mobile Agent application](#)

Use special handling notes to notify users about important information on an individual work task.

- h. [Enable chat in the Now Mobile Agent application](#)

Activate the Chat quick action so that field service agents can chat with a virtual agent using the ServiceNow Agent mobile app.

- i. [Location tracking for mobile](#)

Location tracking enables you to track the activity and positioning of agents while they perform tasks. You can also use the feature to make sure your agents are safe and can be easily located.

j. Enable dark theme in the Now Mobile Agent application

Turn on dark theme to alleviate eye strain and improve readability.

Related topics

[Mobile Platform](#) 

[Complete work orders on Mobile Agent](#)

Connect to your Field Service data

Connect the Now Mobile Agent application to your Field Service application instance to manage work on your mobile device.

Before you begin

Download the Now Mobile Agent application on an iOS platform using the App Store or on an Android platform using Play Store.

Role required: `wm_agent` or `wm_dispatcher`

Procedure

1. Open the mobile application and tap the **+** sign.
2. Connect to your Field Service application instance.
 - To enter the address manually, type the instance address provided by your administrator in the **Instance address** field. For example, `https://<instance name>.service-now.com`.
 - To scan the QR code, tap the QR code icon and scan the QR code provided by your administrator.
3. Tap **Field Service** to get started with your work.

Related topics

[Agent mobile app](#) 

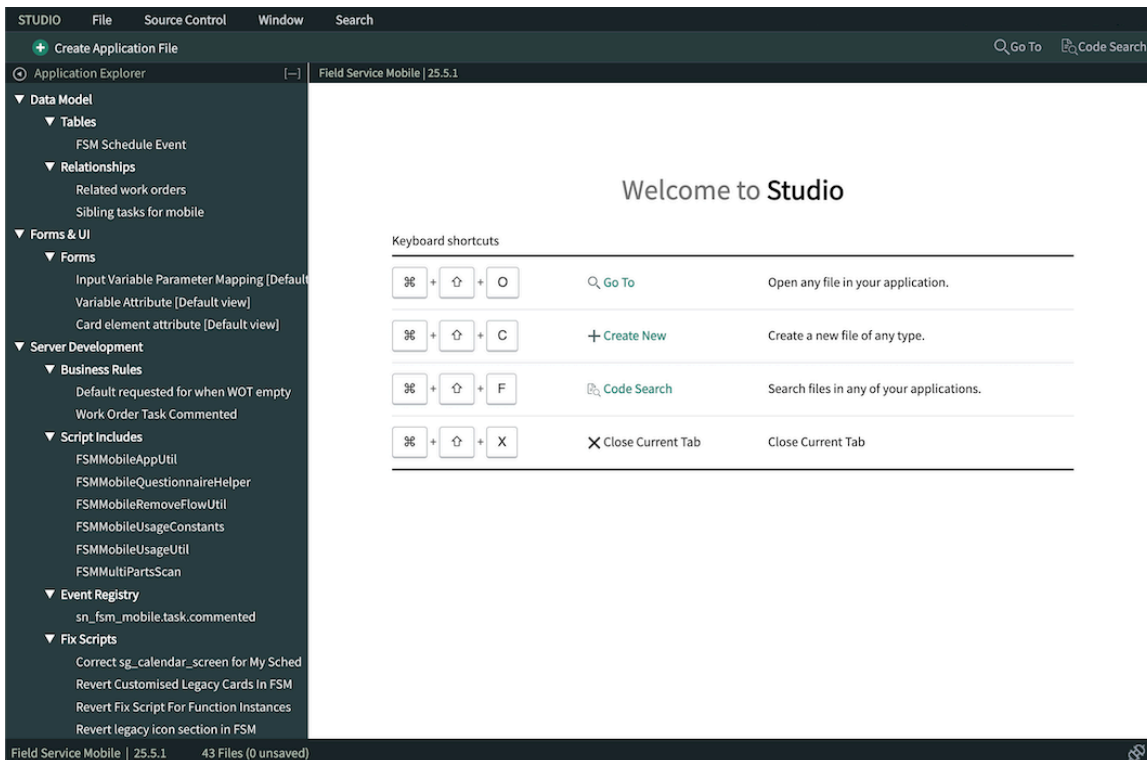
Customizing UI actions for the Now Mobile Agent application

Make it easier for your end users to get things done faster with the Field Service mobile application by creating custom UI actions.

The configurations for UI action conditions are different in Field Service mobile applications than those in the desktop application. Unlike the desktop application, the UI action conditions on mobile don't execute any database queries and therefore don't take up mobile resources. On the mobile application, instead of performing a system check on whether a Field Service configuration is enabled, you can configure the button to be active or inactive.

As an administrator, you can review the mobile UI actions and disable the ones that aren't being used to use less mobile resources.

The following image shows the Now Mobile Agent application open in Studio. The Now Mobile Agent application open in Studio is where you can configure UI actions.



Here's a sample UI action configuration for accepting a work order task.

The **Accept** button on the desktop application has the following UI action conditions:

```
current.state == 16 && (new StateFlow().validFlow(current, '53d0aea8d7230100fcea6859e610326', 'manual'));
```

The system checks these state flow conditions:

1. The **SMconfiguration** record to see if the **accept_reject** UI action is enabled or disabled using this script:

```
(new sn_sm.SMConfiguration()).isEnabled(current, "accept_reject", false)
```

2. If the task has been self-assigned

To modify the UI action for the corresponding button on your mobile device:

1. Don't change the `current.state == 16` condition. It checks for information on the current record.
2. If this condition:

```
(new sn_sm.SMConfiguration()).isEnabled(current, "accept_reject", false)
```

is set to **false**, drop this condition and disable the corresponding mobile UI actions on the mobile application.

3. Set the value for the **current tasks assigned to** field parameter to the logged-in user as shown here: `current.assigned_to == gs.getUserID()`

Based on the preceding example, here's the modified condition for the UI action in the mobile application:

```
current.state == 16 && current.assigned_to == gs.getUserID()
```

Here's another sample configuration for self-assigning a task.

The **Assign to Me** function on the desktop application has the following UI action conditions:

```
(new SMTask()).canAssignToSelf(current)
```

The `SMTask.canAssignToSelf(task)` script include method performs a system check for these conditions:

1. State of the task
2. Value of the scheduled start time
3. If the task has been self-assigned
4. If the user has the basic and agent roles as defined in the SM Configuration record
5. Whether the user is part of a group handled by the task dispatch group

On the mobile application, the following UI script condition performs a check for the first three conditions listed before:

```
current.assigned_to != gs.getUserID()
&& !(current.expected_start.nil()) && (current.state == 10 ||
current.state == 16)
```

For the fourth condition, you can add a specific role to the **Roles** field.

For the fifth condition, perform the following validation in the `wot_assign_to_me` write-back action item:

```
if (smTask.canAssignToSelf(wotGR))
smTask.assignToMe(gs.getUserID(), input.sys_id);
else
gs.addErrorMessage(gs.getMessage("Not a valid task
assignment."));
```

Configure UI actions in the Now Mobile Agent application

Enable or disable the desired UI actions on the mobile device to minimize the load on the mobile resources.

Before you begin

Role required: admin

Procedure

1. In the desktop application navigator, enter `sys_sg_button_instance.list` and press **Enter**.
2. Set the filter condition on the **Function Instances** form to **[Application] [is] [Field Service Mobile]**.
3. Right-click the **Function** field and select **Group**.
4. Set the **Active** field to **false** for the buttons you want to disable in the Field Service mobile interface.


Configuring push notifications for task assignment

Assign tasks and send reminders to customer service agents and field technicians using push notifications.

Agents and technicians can receive push notifications about tasks on their mobile devices. Dispatchers and managers can use push notifications to assign tasks to groups or to individual

agents and to send reminders. Agents and technicians can accept or reject tasks from their mobile devices depending on the configuration.

Push notifications for work order tasks use the **ServiceNow Mobile Application** push application. Use this application to send notifications to both individual users and assignment groups.

Users with the system administrator role can enable and configure push notifications. See [Push notifications](#)  for more information.

Push notifications for task assignment

When a dispatcher or manager assigns a task to an individual user:

- The user receives a notification with an **Approve** or **Reject** action. Approving the notification assigns the task to the user. Rejecting the notification unassigns the task and returns it to the **Pending Dispatch** state.
- With auto assignment enabled, the user receives a notification about the assigned task and no further action is required.

Note:

This behavior depends on the setting for the **Agent must accept or reject the assigned task** configuration option. If disabled, the agent does not have the option to reject a task.

When a dispatcher or manager assigns a task to an assignment group, all users in the group receive a notification with an **Approve** or **Reject** action. Agents receive the notification and can accept or reject the task. When an agent clicks **Assign to me**, the state of the task changes to **Assigned**.

Push notifications as reminders

Notifications can be sent as reminders about upcoming tasks and about SLAs coming due. These notifications are sent to the agent assigned to the task.

Send notifications as upcoming task reminders. Reminders can be set at 15-minute intervals up to one hour. These reminders require the **wm_notification.upcoming.task.reminder.minutes.before** system property to be set. The default setting is 45 minutes before the task start time. If the value for this property is not defined, the agent does not receive reminders.

Send notifications to the assigned agents and agent managers for the following SLAs:

- SLA warning
- SLA breached
- SLA repair complete

Push notifications, actions, and messages

Push notifications, actions, and messages for work order task assignments and reminders.

Push notifications

Adds the following notifications to **System Notification > Push > Push Notifications**:

- **WorkOrderTaskUpcomingReminder**: Sends a notification to the assigned agent as a reminder about an upcoming task.
- **WorkOrderTaskAcceptanceNotification**: Sends a notification when a task must be accepted by an agent.

- **WorkOrderTaskGrpAssignmentNotification:** Sends a notification when a dispatcher assigns a task to an assignment group.
- **WorkOrderTaskAutoAcceptanceNotification:** When auto assignment is enabled, sends a notification when a task is auto accepted by an agent.

Push notification actions

Adds the following actions to **System Notification > Push > Push Action:**

- WO Task-Accept Action
- WO Task-Reject Action
- WO Task-Running Late Action

Push notification messages

Adds the following messages to **System Notification > Push > Push Messages:**

- WO Task Acceptance Message
- WO Task Auto Acceptance Message
- WO Task Group Assignment Message
- WO Task Upcoming Reminder Message

Turn on notification preferences

Field service agents must turn on the following notification preferences:

1. Navigate to **Self Service > My Notifications.**
2. Turn on the work order task notifications:
 - WO Task Acceptance Notification
 - WO Task Auto Acceptance Notification
 - WO Task Group Assignment Notification
 - WO Task Upcoming Reminder
3. Verify that notifications are set to ON on the user profile.

Configure scheduled offline caching

Configure system components to automatically download the cache in the background. If you are making changes to these properties, then you must create them first.

Before you begin

Role required: `wm_admin`

Procedure

1. Configure properties to schedule the offline cache download.
 - a. In the application navigator, enter `sys_properties.list`.
 - b. Set the values for the system properties.

Configuration of system properties for scheduled offline cache download

Property	Description
glide.sg.offline.scheduled_download.enabled	<p>Enable scheduled downloading for all Agent app users.</p> <ul style="list-style-type: none"> Type: true/false Default value: false
glide.sg.offline.scheduled_download.cachesync_offset	<p>Number of minutes before a user's shift to begin payload generation. The property value is in minutes.</p> <p>Note: Do not set the value of this property to less than the interval that the Mobile Offline Scheduling job is running. Doing so would prevent offline payloads from being generated.</p>
glide.sg.offline_payload.refresh_frequency	<p>The number of minutes before a cached record is flagged for refresh.</p> <ul style="list-style-type: none"> Type: Integer Default value: 240 minutes
glide.sg.offline.expiration	<p>The duration when the cache expires on the client. Every time the payload is refreshed, this time gets extended.</p> <ul style="list-style-type: none"> Type: Integer Default value: 172,800,000 milliseconds <p>Note: 172,800,000 milliseconds is 48 hours. After 48 hours, the system deletes the data due to a security protocol.</p>

Note: To set additional properties for scheduling offline cache download, see [Configure offline mode behavior](#).

- c. Select **Update**.
2. Configure the scheduled job to schedule the offline cache download.
 - a. Navigate to **System Definition > Scheduled Jobs**.
 - b. Select the **Populate Agents Daily Schedule Table** scheduled job and configure the job schedule.

- i. Activate the job by selecting the **Active** check box.
- ii. In the **Time** field, enter the time to execute the job.
- iii. Set the **Run** field to **Daily**.

c. Select **Update**.

Related topics

[Scheduled offline caching](#)

Configure the recently closed work order tasks list

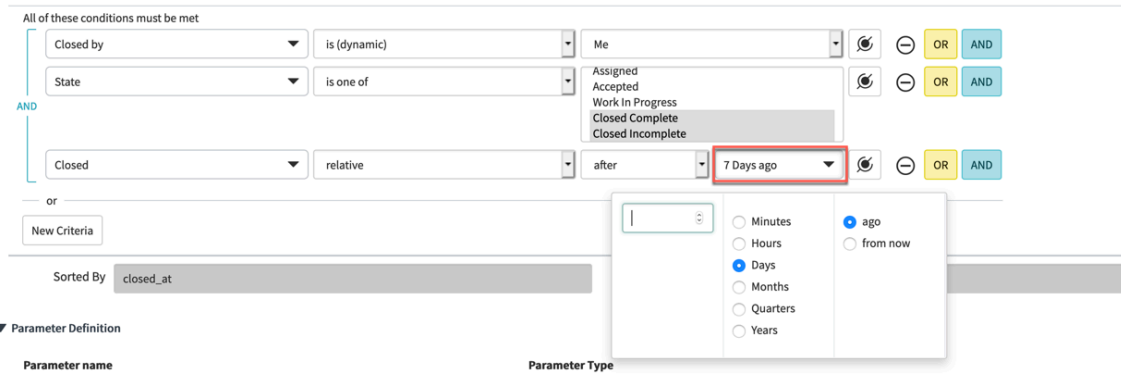
Configure the number of recently closed work order tasks to display in the **Recently Closed Tasks** list in the Now Mobile Agent application.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > System Applications > Studio**
2. In the **Select Application** screen, select Field Service Mobile.
3. Open the **DI_recently_closed_tasks** data item.
4. In the condition section, select the time parameter from the list.



5. Click **Save**.

Configure special handling notes for the Now Mobile Agent application

Use special handling notes to notify users about important information on an individual work task.

Before you begin

Role required: sn_shn.admin

Procedure

1. Navigate to **All > Special Handling Notes > Configuration**.
2. Click **New**.
3. Select a table in the **Table name** field.
4. If desired, select one or more **Related Fields**.

5. Click **Submit**.
6. To modify special handling notes properties, see [Configure special handling notes properties](#).

Enable chat in the Now Mobile Agent application

Activate the Chat quick action so that field service agents can chat with a virtual agent using the Now Mobile Agent application.

Before you begin

Make sure that virtual chat is set up for use in the Employee Service Center. For more information about virtual chat, see [Virtual Agent for Field Service Management](#).

Role required: admin

Procedure

1. Navigate to **All > System Mobile > Applet Launchers**.
2. Open the **Homepage** record.
3. In the Body related list, under the Quick Actions Menu Maps section, open the **Chat** record.
4. Select the **Active** option to activate the quick action for use.
5. Click **Update**.

Location tracking for mobile

Location tracking enables you to track the activity and positioning of agents while they perform tasks. You can also use the feature to make sure your agents are safe and can be easily located.

Location tracking options

There are two options available for location tracking. You can either select one option for users or you can make both options available to users who then must select a location tracking option. The location tracking option that you select applies to the instance.

The two location tracking options are:

- **Manual tracking** – This option enables users to select whether to start location tracking for a defined period or for users to be continuously tracked. This type of location tracking is only supported on the Mobile Agent app. For information about the manual tracking option, see [Configuring manual location tracking](#).
- **Action-based tracking** – You can use this option to configure functions to start or stop location tracking, based on actions a user performs. This type of location tracking is supported on both the Mobile Agent app and the Now Mobile app. For information about the action-based tracking option, see [Configuring action-based location tracking](#).

Activating plugins

As an administrator, you must activate geolocation tracking for your users by installing the Geolocation plugin (com.snc.geolocation). This plugin enables the manual tracking option. To enable action-based location tracking, the Mobile Location Tracking plugin (com.glide.sg.location.tracking) must be installed.

Note:

To install the Mobile Location Tracking plugin (com.glide.sg.location.tracking), you must first install the Geolocation plugin (com.snc.geolocation).

For details on plugin activation, see [Activate a plugin](#).

Location tracking and your users

After activating the plugins and performing the various configurations, you must enable location tracking for users. For more information, see [Enabling location tracking for users](#).

On the users-side, after configuring the location tracking options, users will see the geolocation location tracking settings in the **Settings** tab of their mobile devices. Users can enable or disable location tracking on their device. For more information, see [Using location tracking for mobile](#).

Location tracking in offline

Location tracking is supported in offline. While offline, the user's location and activity is collected and stored in the device. When the user goes back online, all the collected tracking data is synchronized to their instance.

Action-based location tracking for Field Service Management example

Make updates to action-based location tracking for more accurate tracking of an agent's location. That way you can make scheduling adjustments on the fly if you see they're location is farther away than anticipated.

Before you begin

https://player.vimeo.com/video/1037613821?h=44aee9c0ed&badge=0&autoplay=0&player_id=0&app_id=58479

Role required: admin

About this task

In the example below you're adjusting the start travel action item to track the agent for a longer period and more accurately.


Action based tracking will track a Field Service agent's location when the agent clicks a work order task action button. The duration for tracking is configured by an administrator. Changing action based settings don't impact status changes if you have manual tracking configured. Action based is customizable to all functions that change the state of a work order task out of the box. For more information on action based tracking, see [Configuring action-based location tracking](#).

Manual based tracking will track a Field Service agent for a certain period of time. For example continuously, or for a given set of hours, regardless of if a Field Service agent clicks a work order task action button. For more information on manual based tracking, see [Configuring manual location tracking](#).

The `wm_agent` role is required for tracking. This must be applied to the agent in order for customer and geolocation tracking.

Procedure

1. Navigate to **All > System Mobile > Functions**.
2. Search for and select the **Start Travel** function.
3. Select **here** if you see the notice that says:
This record is in the Field Service Mobile application, but Global is the current application. To edit this record, select.
4. Open the **Location Tracking** tab.

5. Select the Preview this record icon  on the Tracking Properties line.
 6. Select **Open Record**.
 7. Select **here** if you see the notice that says:
This record is in the Field Service Mobile application, but Global is the current application. To edit this record, select.
 8. Adjust the location tracking settings:
 - a. Change the duration from 1 to 3. That tracks a Field Service agent's location for three hours instead of the default 1.
 - b. Change the accuracy from medium to high. This shows you the agent's location within 10 meters instead of the default 100 meters.
 - c. Change the Proximity from 100 meters to 10 meters. That updates the agent's location when they move more than 10 meters instead of 100.
 - d. Change the Frequency from one hour to one minute. That updates the agent's location every minute.
- Note:**
Changing the frequency to every minute should only be done if necessary for your tracking purpose use case.
9. Select Update.

Enable dark theme in the Now Mobile Agent application

Turn on dark theme to alleviate eye strain and improve readability.

Before you begin

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Settings**.
3. Tap **Appearance**.
4. Tap **Dark theme**.

Result

The app changes to dark theme.

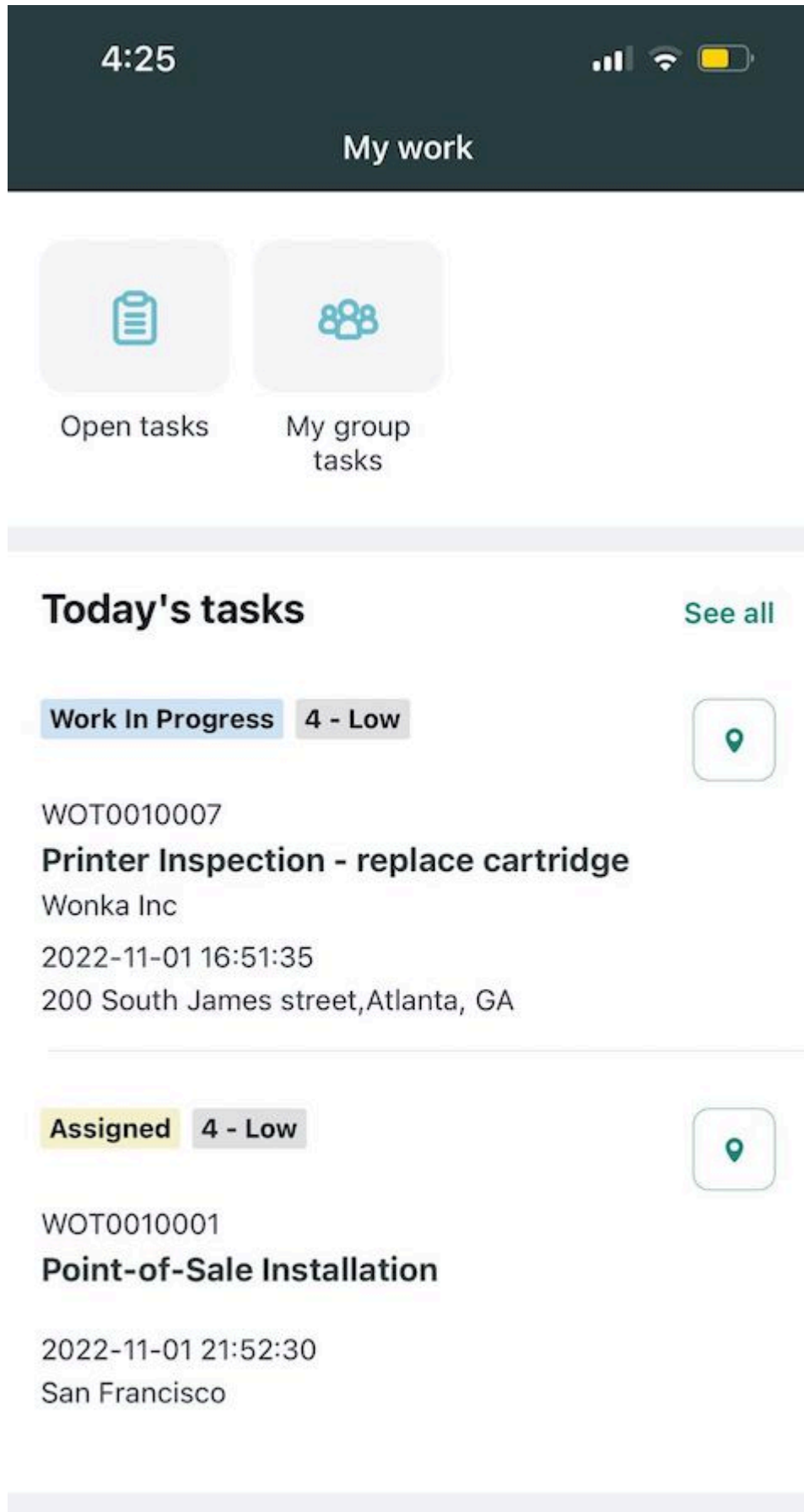
Field Service Contractor for mobile feature of the Now Mobile Agent application

The Field Service Contractor for mobile feature of the Now Mobile Agent application enables contractors to manage work order tasks.

The Field Service Contractor for mobile application enables managers and field service agents of contractor companies to manage and work on assigned work order tasks. When not connected to the internet, agents can use the mobile application to perform activities like adding notes, referring to attached knowledge articles and also closing work order tasks. The Now Mobile Agent application syncs the information and provides the latest information when it is online again.

Field Service Contractor for mobile

Manage work orders with the Field Service Contractor mobile



The steps for configuring Field Service Contractor for mobile are:

1. [Activate the Field Service Contractor for mobile feature in the Now Mobile Agent application](#)

Activate Field Service Contractor for mobile to manage work order tasks assigned to the contractor company.

2. [Access the ServiceNow Agent for Field Service Contractor for mobile application](#)

Access the Field Service Contractor for mobile application to manage tasks from your phone or other mobile devices.

Related topics

[Field Service Contractor for mobile](#)

Activate the Field Service Contractor for mobile feature in the Now Mobile Agent application

Activate the Field Service Contractor for mobile plugin (com.snc.fsm_ext_mobile) to manage work order tasks assigned to the contractor company. This plugin activates related plugins if they are not already active.

Before you begin

Field Service Contractor for mobile requires a separate subscription from the rest of the ServiceNow AI Platform.

To purchase a subscription, contact your ServiceNow account manager. When you purchase a subscription, certain plugins are activated automatically. If a paid plugin isn't activated automatically, you can manually activate it from the All Applications list in your instance.

Note:

Before purchasing a subscription, you can evaluate the feature on a non-production instance without charge by requesting it from the Now Support Service Catalog.

Role required: admin

About this task

My work, Articles, Notifications, My Incidentals and More applets, navigation tabs are activated by default for both new and upgrade customers when they activate using the Field Service Contractor for mobile plugin (com.snc.fsm_ext_mobile).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Contractor for mobile plugin (com.snc.fsm_ext_mobile) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Access the ServiceNow Agent for Field Service Contractor for mobile application

Access the Field Service Contractor for mobile application to manage tasks from your phone or other mobile devices.

Before you begin

- Ensure that the application and all its associated ServiceNow® Store applications have valid ServiceNow® entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- Download the Now Mobile Agent application. The application is available on the App Store for iOS platforms, and on the Play Store for Android platforms.
- The contractor company has provided their instance to the manager and agent to access the Field Service Contractor for mobile application.

Role required: wm_ext_agent or wm_ext_manager

Procedure

1. Open the Now Mobile Agent application and tap the + sign.
2. Enter the address for the Field Service Contractor for mobile instance using one of the following methods:
 - Enter the address for the instance in the **Instance address** field.
 - Tap the QR code icon and scan the QR code provided by your administrator.
3. Provide your username and password.
4. Tap **Login**.

Result

The Field Service Contractor for mobile application home screen displays.

Configuring Site Mapping for Field Service Management

Site Mapping for Field Service Management helps agents navigate job sites when their tasks are in large indoor facilities.

Site Mapping for Field Service Management integrates features from Indoor Mapping to the Mobile Agent application. For more information, see [Indoor Mapping](#).

Site Mapping for Field Service Management introduces the Site field to work order tasks. The Site field represents indoor locations inside a building or job site. Agents can use the site map on the Mobile Agent application to find directions or view points of interest on the job site. For more information, see [Job site maps on Mobile Agent](#).

Configuration overview

The steps for configuring Site Mapping for Field Service Management are:

1. [Activate Site Mapping for Field Service Management](#)
2. Set up Indoor Maps in the Indoor Mapping Map Studio. For more information, see [Indoor Mapping](#).
3. [Create a Custom Map Provider record](#)
4. [Set the default provider for a Custom Map Screen](#)

Activate Site Mapping for Field Service Management

Install the Site Mapping for Field Service Management application (sn_fsm_site_map) if you have the admin role.

Before you begin

Role required: admin

- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- Site Mapping for Field Service Management requires the following plugins. Ensure that these plugins are activated before you install Site Mapping for Field Service Management.

Required ServiceNow plugins

Field Service Management

Enables you to manage work requests that are performed on location by field service agents.

For information, see [Activate Field Service Management](#).

Field Service Mobile

Enables agents to view work order information on mobile.

For more information, see [Configure the Now Mobile Agent application](#).

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Site Mapping for Field Service Management application (sn_fsm_site_map) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

3. In the Application installation dialog box, review the application dependencies.

Dependent plugins and applications are listed if they will be installed, are currently installed, or need to be installed. If any plugins or applications need to be installed, you must install them before you can install Site Mapping for Field Service Management.

4. Optional: If demo data is available and you want to install it, select the **Load demo data** check box.

Demo data are sample records that describe application features for common use cases. Load the demo data when you first install the application on a development or test instance.

5. Select **Install**.

Create a Custom Map Provider record

Configure map providers to identify buildings agents can view indoor maps for.

Before you begin

Ensure Indoor Maps are set up. For more information, see [Indoor Mapping](#).

Role required: admin

Procedure

1. Navigate to **All > Field Service > Site Mapping > Custom Map Providers**.
2. Select **New**.
3. On the form, fill in the fields.

Note: Ensure the current **Application** is **Indoor Mapping**.

Custom Map Provider record

Field	Description
Key table	Table that contains the building values.
Key	The specific building entry from the key table.
Map provider	The map provider you're using.

4. Select **Submit**.

Example: Using demo data to create a Custom Map Provider for Building A

Allie is an administrator who wants to configure Site Mapping for Field Service Management. During configuration, they install demo data to practice the procedure.

They navigate to the Custom Map Provider form and enter the following values:

Custom Map Provider record

Field	Value
Key table	Building [sn_map_core_building]
Key	Building A
Map provider	ServiceNow

After submitting the form, Allie proceeds to set the new record as the provider for the Custom Map Screen.

What to do next

The new record must be set as the default provider for the Custom Map Screen for agents to see the building on their Mobile Agent application. For more information, see.

Set the default provider for a Custom Map Screen

Configure a map screen to enable site maps on the Mobile Agent application.

Before you begin

Ensure there is a Custom Map Provider. For more information, see [Create a Custom Map Provider record](#).

Role required: admin

Procedure

1. Navigate to **All > Field Service > Site Mapping > Custom Map Screens**.
2. Select **Indoor Map of Site Details for WOT Site**.
3. Enter the Custom Map Provider record in **Default Provider**.

Result

Agents can see the map of the building on the Mobile Agent application.


Activate Sidebar for the Field Service Mobile Agent application

You can activate the Sidebar for Field Service Management plugin (sn_fsm_sidebar) for Field Service Management if you have the admin role. Activating this plugin enables the Sidebar feature on the Mobile Agent application.

Before you begin

Role required: admin

Note:

Sidebar is a ServiceNow AI Platform[®] capability. For more information on configuring Sidebar, see [Configuring Sidebar](#) .

For more information on how Sidebar works, see [Exploring Sidebar](#) .

About this task

Activating this plugin enables the Sidebar feature on the Mobile Agent application.

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Sidebar for Field Service Management plugin (sn_fsm_sidebar) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Related topics

[Start a Sidebar discussion on the Now Mobile Agent application](#)

[Summarize a Sidebar discussion on the Now Mobile Agent application](#)

Configuring Field Service Virtual Agent Conversations

Predefined Field Service Virtual Agent chatbot conversations enable field service agents to view their work schedule for the day and update their tasks.

A conversation topic defines the dialog between the Virtual Agent chatbot and the field service agent so that the agent can accomplish a specific goal.

Configuration overview

The steps for configuring Field Service Virtual Agent Conversations are:

1. Install the Field Service Virtual Agent Conversations application. For more information, see [Install Field Service Virtual Agent Conversations](#).
2. Publish the predefined Virtual Agent topics. For more information see, [Activate required Virtual Agent conversation topics for Field Service Management](#).
3. Integrate the NLU model with your Virtual Agent topics. For more information, see [Activate Virtual Agent conversations with NLU](#).
4. Configure chat in the Now Agent mobile application. For more information, see [Enable chat in the Now Mobile Agent application](#).

Install Field Service Virtual Agent Conversations

You can install the Field Service Virtual Agent Conversations application (com.sn_fsm.virtualagent) if you have the admin role. The application includes conversation topics and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- Field Service Virtual Agent Conversations requires the following plugins. Ensure that these plugins are activated before you install Field Service Virtual Agent Conversations.

Required ServiceNow plugins**Virtual Agent plugin (com.glide.cs.chatbot)**

Enables the chatbot conversation with virtual agent. For details on activating Virtual Agent, see [Activate Virtual Agent](#).

- Virtual Agent for Field Service Management requires the following ServiceNow Store applications. Ensure that these applications are installed before you install Field Service Virtual Agent Conversations.

Required ServiceNow Store applications

Field Service NLU Model for Virtual Agent Conversations

For more information, see [Enabling NLU](#).

Role required: admin

About this task

The Field Service Virtual Agent Conversations provides the following system property.

System Properties

Property	Description
sn_fsm_va.days_in_past_to_debrief_task	Enable Virtual Agent to debrief the Work in Progress tasks for today and for previous days depending on the selected value. For example, if you select 1 in the Value field, the Virtual Agent debriefs the tasks for today and yesterday. If you select 2 in the Value field, the Virtual Agent debriefs the task for today, yesterday, and a day before yesterday.

The Field Service NLU Model for Virtual Agent Conversation application is installed with Field Service Virtual Agent Conversations:

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Virtual Agent Conversations application (com.sn_fsm.virtualagent) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

3. In the Application installation dialog box, review the application dependencies.

Dependent plugins and applications are listed if they will be installed, are currently installed, or need to be installed. If there are any plugins or applications that need to be installed, you must install them before you can install Field Service Virtual Agent Conversations.

4. **Optional:** If demo data is available and you want to install it, select the **Load demo data** check box.

Demo data are sample records that describe application features for common use cases. Load the demo data when you first install the application on a development or test instance.

5. Select **Install**.

Activate required Virtual Agent conversation topics for Field Service Management

Activate Virtual Agent for Field Service Management to start chatting with the virtual agent.

Before you begin

Role required: admin, virtual_agent_admin

As the administrator or Virtual Agent admin, enable chatbot conversations by enabling the following plugins:

- Glide Virtual Agent plugin (com.glide.cs.chatbot).
- Field Service Virtual Agent Conversations plugin (com.sn_csm.virtualagent).

About this task

The base system provides the following predefined virtual agent topics (chatbot conversations). To enable chatbot conversations, you must publish these topics:

My Upcoming Tasks

Field service agents can search for upcoming work order tasks. The agent can check and update the status of existing tasks.

Show Nearby Tasks

Field service agents can search for work order tasks that are a short distance away from the agent's current location. The agents can assign themselves to those tasks.

Debrief Tasks

Field service agents can get information about the work order tasks that are in progress. The agents can take appropriate actions, such as entering time spent working on the task, logging incidentals, closing tasks, and creating follow-on tasks.

You can configure the `sn_fsm_va.days_in_past_to_debrief_task` system property to get information about the work in progress tasks for n number of previous days. For more information see, [Install Field Service Virtual Agent Conversations](#).

Note:

If you want to customize the predefined topics provided in the base system, duplicate the topic and then modify it. For more information, see [Virtual Agent Designer](#).

Procedure

1. Navigate to **All > Conversational Interfaces > Virtual Agent > Designer > Topics**.
2. Click one of the required topics to open it.
3. To use the topic, click **Publish**.
4. Repeat this procedure for the other required topics, as many times as needed.

Activate Virtual Agent conversations with NLU

Integrate Natural Language Understanding (NLU) models with your Virtual Agent chatbot topics so that chatbots can analyze and understand the user's provided information. The chatbot can navigate the user to the right topic based on the inferred intent.

Before you begin

Role required: admin, virtual_agent_admin

About this task

The Field Service NLU Model for Virtual Agent Conversations plugin (com.sn_fsm.nlu) is automatically enabled when you enable the Field Service Virtual Agent Conversations plugin (com.sn_fsm.virtualagent).

After enabling the plugin, you can view the following read-only intents for the Field Service NLU models in Studio:

- My Upcoming Tasks
- Show Nearby Tasks
- Debrief Tasks

To use these intents, you must train and publish the predefined Field Service NLU for VA model. For more information, see [Train your NLU model](#) and [Publish your NLU model](#).

Procedure

1. Enable ServiceNow NLU in Virtual Agent.
For more information, see [Configure Natural Language Understanding in Virtual Agent](#).
2. **Optional:** Customize an intent by importing an existing intent from the Field Service NLU for Virtual Agent model.
For more information, see [Import an NLU intent](#).
3. Link the NLU model with associated intents in the Virtual Agent topics.
For more information, see [Natural Language Understanding in Virtual Agent](#).

Configuring Smart Assessment questionnaires for Now Mobile Agent

Smart Assessment enables users with the administrator role to create assessment templates and associate them with work order tasks.

Use Smart Assessment templates to enhance work order questionnaires for a Now Mobile Agent application. You can migrate survey-based questionnaire templates to Smart Assessment templates.

Use the Smart Assessment Engine template designer to do the following:

- Create and customize the assessment templates for questionnaires.
- Set the assessment parameters such as the question types, justifications, and conditional visibility.
- Configure conditional questions based on responses of all other types of questions and across sections.
- Allow additional comments or attachments on a question's response.

For more information, see [Smart Assessment Engine](#).



Important:

Usage of Smart Assessment questionnaire can't be disabled once enabled.

Configuration overview

Set up Smart Assessment by completing the following actions:

1. [Activate Smart Assessment for Field Service questionnaire](#)
2. [Enable Smart Assessment questionnaire](#)

3. Either configure a Smart Assessment questionnaire by migrating a survey-based questionnaire or create new smart assessment templates.

Migrating from survey-based questionnaire and configuring Smart Assessment questionnaire:

- a. [Migrate a survey-based questionnaire to Smart Assessment](#)
- b. [Migrate survey instances to Smart Assessment](#)

Creating and configuring a Smart Assessment questionnaire from a new template:

- a. [Create or modify Smart Assessment template](#)
- b. [Create a Smart Assessment questionnaire](#)

Related topics

[Smart Assessment components](#)

Activate Smart Assessment for Field Service questionnaire

You can activate the Smart Assessment for Field Service Questionnaire plugin (sn_fsm_smart_asmt) if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

Smart Assessment for Field Service Questionnaire requires a separate subscription from the rest of the ServiceNow AI Platform.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

To purchase a subscription, contact your ServiceNow account manager. When you purchase a subscription, certain plugins are activated automatically. If a paid plugin isn't activated automatically, you can manually activate it from the All Applications list in your instance.

Note:

Before purchasing a subscription, you can evaluate the feature on a non-production instance without charge by requesting it from the Now Support Service Catalog.

Role required: admin, questionnaire_admin

Ensure the following plugins are activated before you install Smart Assessment for Field Service Questionnaire:

- Field Service Management (field_service_management)
- Field Service Questionnaire
- Field Service Mobile
- Smart Assessment for Mobile
- Smart Assessment Dependencies
- Smart Assessment Core
- Smart Assessment Designer
- Smart Assessment Connected
- Smart Assessment Migration Tools

About this task

The following items are installed with Smart Assessment for Field Service Questionnaire:

- Plugins
- Tables
- Business rules
- Script includes
- Scheduled job

For more information, see [Smart Assessment components](#).

Procedure


1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the plugin using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#) .

Enable Smart Assessment questionnaire

Enable Smart Assessment Questionnaire to enhance work order task questionnaires for Now Mobile Agent application.

Before you begin

You can enable Smart Assessment questionnaire only if no survey instances are open for any questionnaire.

Activate the required plugins. For more information, see [Activate Smart Assessment for Field Service questionnaire](#).

Important:

Usage of Smart Assessment questionnaire can't be disabled once enabled.

Role required: admin

Procedure

1. Navigate to **All > Field Service > Administration > Configuration**.
2. Enable **Use Smart Assessment Questionnaire** by selecting it.

Result

Smart Assessment questionnaire is enabled for work order tasks.

Migrate a survey-based questionnaire to Smart Assessment


Migrate survey-based work order questionnaires and templates to Smart Assessment templates.

Before you begin

Role required: admin

About this task

Administrators can migrate the existing survey-based questionnaires and templates to Smart Assessment. The migration can be started from a survey-based work order questionnaire record. A new Smart Assessment questionnaire and template is automatically created after the migration is complete.

Smart Assessment uses the Smart Assessment Engine to migrate survey-based templates to Smart Assessment templates. For more information, see [Smart Assessment Engine](#) .

Note:

- Smart Assessment templates don't support Boolean, Template, Percentage, Imagescale, Ranking, Rating, Duration, Custom, and Scale data types. Update these data types in work order questionnaires to the closest supported data types before initiating the migration process.
- Conditional dependencies of a questionnaire are not migrated.

Procedure

1. Navigate to **All > Field Service > Administration > Questionnaire**.
2. Open the questionnaire to migrate.
3. Select **Migrate**.
4. **Optional:** Select the assessment template migration record to view the status of the migration.

Result

The questionnaire is migrated and a Smart Assessment questionnaire and template is created.

What to do next

View, update, or publish the Smart Assessment template. For more information, see [Create or modify Smart Assessment template](#).

Migrate survey instances to Smart Assessment

Migrate a survey-based questionnaire to Smart Assessment, which migrates all the associated instances of a survey to Smart Assessment and re-triggers them.

About this task

Smart Assessment uses the Smart Assessment Engine to migrate survey instances to Smart Assessment. For more information, see [Smart Assessment Engine](#) .

Note:

- Survey instances in **Work in progress** state can't be migrated.
- You can link migrated instances only to Smart Assessment templates migrated from a survey-based questionnaire. Migrated instances can't be linked to a new Smart Assessment template.

Before you begin

Role required: questionnaire_admin

Procedure

1. Navigate to **All > System Definition > Scheduled Jobs.**
2. Search for the **Migrate survey instances to smart assessments** job and open it.
3. Select **Execute Now.**

Result

Survey instances for the questionnaire are migrated to Smart Assessment and re-triggered.

Create or modify Smart Assessment template

Create or modify Smart Assessment template and associate it with Work Order Task tables to create Smart Assessment questionnaires for work order tasks using this template.

About this task

You can create Smart Assessment templates and add instructions, questions, and reference information by using the template designer in the Smart Assessment Engine application. Smart Assessment template allows you to create Smart Assessment questionnaires for work order tasks. Smart Assessment questionnaires helps you to evaluate various situations, aspects, or records.

Before you begin

Role required: sn_smart_asmt.template_manager or sn_smart_asmt.assessment_admin

Procedure

1. Navigate to **Workspaces > Assessment Workspace.**
2. Either create a template or select an existing template.
The Details page on the **General** tab displays the information that you provided to create the template.
3. Select **Settings** to set the duration and role.

Settings page

Field	Description
Duration	<p>Default time period in days between when the assessment is sent and when responders are expected to return a completed assessment.</p> <p>This setting is used to calculate the Due date value for assessments that are generated from this template.</p>
Assessment reader role	Role required to view an assessment generated from the template.

4. On the **Questions** tab, select **Add instructions.**

a. Enter the information that a responder might find useful in the Instructions text box. This information could include the purpose of the assessment, the ways that the responses are used or analyzed, and so on.

b. Select **Save**.

5. Select **Add section** to add a section that can hold questions.

The sections organize the questions into manageable groups. For example, an assessor who is knowledgeable about a subject can answer all questions in one section and an assessor with a different area of expertise can respond to questions in another section. The sections can contain either the subsections or questions, but not both. The subsections can only contain questions but no other subsections.

Note:

At any time, you can select a section in the list and then select **Delete** to delete that section.

6. Enter a name and description for the section and then select **Save**.

7. Select a section in the list and then select **Add question**.

For each question type, you configure the following settings:

A: Enter the text of the question

Enter the question text that the assessor reads.

B: Add additional content (optional)

Add a plain text description that appears after the question and Guidance text that could contain HTML or images by selecting **Question description**. You can provide descriptive text that appears in addition to the question text and provide guidance on how best to answer the question.

C: Specify the question type and set the attributes for the type

Configure any one of several question types (check box, text, date, and so on).

You can customize each type of question with attributes like whether a response is required or visible only when specified conditions are met, whether particular responses are correct or preferred, whether a justification is required, and so on.



Note:

The option to have one or multiple records selected as answers to one question is available only for the drop-down list, check box, and reference question types.

D: Specify possible responses

Configure a specified set of possible responses to some question types.

For more information on configuring a question, see one of the following topics.

Description	Location
Create and configure text type questions.	Create a text question 
Create and configure drop-down list type questions.	Create a drop-down list question 

Description	Location
Create and configure radio button type questions.	Create a radio button question ↗
Create and configure check box type questions.	Create a check box question ↗
Create and configure number type questions.	Create a number question ↗
Create and configure reference type questions.	Create a reference question ↗
Create and configure attachment type questions.	Create an attachment question ↗
Create and configure date type questions.	Create a date question ↗

8. Select **Save**.

9. **Optional:** Select **Publish**.

Note:

- (Optional) You can create a Smart Assessment questionnaire only from a published template.
- (Optional) You can update a published template only if no active assessment is associated with the template.

Result

The Smart Assessment template is created or modified.

What to do next

[Create a Smart Assessment questionnaire](#)

Related topics

[Smart Assessment Engine](#) ↗

[Using the template designer](#) ↗

Create a Smart Assessment questionnaire

Create a Smart Assessment questionnaire and associate it with a Smart Assessment template to create work order task questionnaires.

Before you begin

Role required: questionnaire_admin

Procedure

1. Navigate to **Field Service > Administration > Questionnaire**.
2. Select **New**.
3. On the form, fill in the fields.

Questionnaire form

Field	Description
Name	Name of the questionnaire.
Active	Option to make the questionnaire record active. The administrator can attach active questionnaires to work orders and work order tasks.
Description	Brief description of the questionnaire record.
Table	Table that is associated with this questionnaire record.
Trigger condition	Trigger condition that determines when the questionnaire is applicable. Use the condition builder to create trigger conditions. When these conditions are true for a work order task, the questionnaire is added to the work order task.
Mandatory	Option to make the questionnaire mandatory. When enabled, the agent must complete the questionnaire before closing the work order or work order task.
Close before	State that the work order or work order task must be in before agents can complete a mandatory questionnaire.

4. Select **Submit**.
5. In the **Questionnaire templates** section, select **New**.
6. On the form, fill in the fields.

Questionnaire template

Field	Description
Questionnaire	Name of the questionnaire. This field is auto-populated with the name of the questionnaire.
Smart assessment template	Smart Assessment template to associate with the questionnaire. Note: You can create a Smart Assessment questionnaire only from a published template.
Active	Option to activate the Smart Assessment template for the questionnaire.

7. Select **Submit**.

Result

A questionnaire with the **Type** set to **Smart Assessment** is created.

Integrating Field Service Management with other applications

Extend the capabilities of Field Service Management and connect with other departments to assist with case resolution by integrating with other applications.

Integration with Customer Service Management

Provides an integration between the Customer Service Management and Field Service Management applications.

Users can view account and contact information on work orders and work order tasks in the Field Service Management application. Customers and consumers can view case-related work orders from the Customer Service and Consumer Service Portals.

When an agent creates a work order from a customer service case, the work order and task forms include case-related information such as the account and contact.

When a customer or a consumer views a case from either the Customer or Consumer Service Portals, they can view the details of any work orders and tasks related to the case.

Product use rights included with this application

If you have purchased a subscription for the Customer Service Management application and have the customer service agent [sn_customerservice_agent] or the customer service agent manager [sn_customerservice_manager] role, you can create and view all work orders and appointments related to your case. If you are an external user with the snc_external role, you can create and view all case-related work orders and appointments related either to your account or a related#account.

Customer Service with Field Service Management plugin

The Customer Service with Field Service Management plugin (com.snc.csm_fsm_integration) integrates the Field Service Management and Customer Service Management applications. This plugin requires:

- Field Service Management
- Customer Service Management
- Customer Service Portal

Changes to the Field Service Management application

In the Field Service Management application, this integration adds the following fields to the Work Order form. These fields are visible in the Case view. To display these fields, right-click the Work Order form header and select **View > Case**.

- Account
- Consumer
- Contact
- Asset
- Partner
- Partner Contact

Updating the **Account** field on the Work Order form also updates the **Company** field.

Updating the **Contact** field on the Work Order form updates the **Caller** field.

Changes to the Customer Service Management application

In the Customer Service Management application, this integration adds the **Work Orders** link to the Customer Service Portal and Consumer Service Portal headers. Click this link to view a list of work orders, including the work order number, priority, state, and short description. The

work orders displayed in this list on the Customer Service Portal depend on the customer role: customer, customer admin, partner, or partner admin.

Click a work order in this list to display the work order details.

Known limitations

There is no synchronization between the Work Order form and the associated Case form. If information changes on the Case form, it does not get updated on the Work Order form.

Map case fields with work order table

Define the fields you want to map between the case and the target work order table fields that you have already configured. This configuration automatically copies the values of mapped fields from the case to the work order when creating a work order from the case.

Before you begin

Role required: wm_admin

Procedure

1. Navigate to **All > Field Service > Administration > Case Work Order Mapping**.
2. Click **New**.
3. On the form, fill in the fields.

CSM Table Map form

Fields	Description
Mapping Name	The table map name.
API Name	Read only. The API for this table map.
Source Table	The source table for the map, such as case.
Active	Enables the mapping from the source to the target tables.
Application	Read only. The application for this table map.
Advanced Field Mapping	Enables advanced field mapping.
Target Table	The target table for the map, such as work order [wm_order].
Use Advanced Condition	Enables advanced condition mapping, which uses a script. If enabled, add a script in the Advanced Condition field.
Advanced Condition	The script to use if the Use Advanced Condition field is enabled.
Conditions	Use the condition builder to select the conditions that apply to the table map.
Order	Order of priority for processing multiple matching map definitions simultaneously to resolve dependencies.

Fields	Description
	<ul style="list-style-type: none"> • If there is only one matching table map, the system uses that map. • If there are multiple matching table maps with the same order, the system uses the map with the older created date. • If there are multiple matching table maps with different orders, the system uses the map with the highest order.

4. Click **Submit.**

The table map is created by mapping the selected source table to the work order table.

5. Create field mapping to copy information from the case field to an appropriate field in the work order.

- a.** From the CSM Table Map list, select the table map created in step 2.
- b.** In the Basic Field Mapping form section, click **New**.
- c.** Select a **Source Field** and a **Target Field**.
- d.** Enable the **Active** check box.
- e.** Enter a number in the Order field.
- f.** Click **Submit**.
- g.** Repeat steps b through f for each field to be mapped.

6. Click **Update on the CSM Table Map form.**

Result

The mapping between the source and target tables is complete and ready to copy information from the case field to the corresponding field in the work order.

Integration with Industry products

Provides an integration between the Industry products and Field Service Management application. This integration allows customers and consumers to manage case-related work orders and tasks across Industry Products portals and application interfaces, enhancing visibility and operational efficiency.

Key Features of the Integration

1. Unified case and work order view:

- Customers and consumers can view case-related work orders and tasks directly from all Industry Products portals and application interfaces.
- Work orders and tasks include account and contact information, providing comprehensive details related to customer service cases.

2. Case-initiated work orders:

- When a work order is created from a customer service case initiated through Industry Products, the work order and task forms include case-related details, such as account and contact information.
- Customers can view related work orders and tasks from within their Industry Product portals.

Supported Industry Products

This integration supports all Industry Products, each extending the value of data models, frameworks, and capabilities required for work order management in Field Service Management. For more information, see [CRM and Industry Products](#).

Access to work orders and work order tasks

Access to FSM work orders and tasks through Industry Products requires the Customer Service with Field Service Management plugin (com.snc.csm_fsm_integration). For more information, see [Integration with Customer Service Management](#). This plugin requires:

- Field Service Management
- Customer Service Management
- Customer Service Portal

Enhanced security with roles

To ensure data security and control, the following roles can be used to manage access to work orders and tasks:

- `wm_location_agent`: Restricts agents to viewing work orders and work order tasks relevant to their provider service organization.
- `wm_location_assignment.manager`: Allows managers to oversee work orders and work order tasks within their specific provider service organization.

These roles are available when the Work Management and Service Organization plugins are installed. They help:

- Restrict access to relevant work orders and tasks.
- Secure data within the context of the provider service organization.

Product use rights included with Industry products

- If you have a subscription to the FSM application and the Customer Service Agent (`sn_customerservice_agent`) or Customer Service Agent Manager (`sn_customerservice_manager`) roles, you can create and view all work orders and appointments related to your cases.
- External users with the `snc_external` role can create and view case-related work orders and appointments associated with their account or related accounts.

Integration with Project Portfolio Management

Link project tasks to work orders to assist with managing installation or deployment projects in the field.

A project can have multiple tasks that are assigned to field service agents. Using the Field Service Management integration with Project Portfolio Management, you can create work orders directly from project tasks. Linking project tasks to work orders in this way:

- Synchronizes the planned and actual dates between the project task and the work order.
- Synchronizes the states between the project task and the work order.

To create a work order from a project task, click the **Create Work Order** related link on the Project Task form. To view an active linked work order, click the **View Work Order** related link on the

Project Task form. Project tasks can have more than one linked work order, but only one work order can be active at a time.

Dates

Dates are synchronized in one direction, from the project task to the linked work order and to any work order tasks.

- Work order tasks created for a linked work order have fixed **Window start** and **Window end** dates that are based on the planned start and end dates of the project task.
- Updates to project task dates are also updated in the linked work order tasks for tasks that are not in the **Work In Progress** or **Closed** states.

i Note:

Changes to the dates on a work order task do not change the dates on the linked project task.

States

State changes are synchronized in one direction, from the work order to the project task.

- Updating the work order state also updates the state of the linked project task.
- Updating the state of a project task add a note to the **Work Notes** field on the linked work order.
- Closing a work order also closes the project tasks.

If an update to the state of a project task fails, a note is added to the project task **Work notes** field about the corresponding work order update. Updates can fail with project tasks that have dependencies.

Work order and project task states are updated as follows.

Synchronized states of work order and project task

Work Order State	Project Task State
Work In Progress	Work In Progress
Close Complete	Close Complete
Close Incomplete	Close Incomplete
Canceled	Close Skipped

Plugins

Activate the Field Service with Project Management plugin (com.snc.wm_ppm) to use this feature. This plugin requires the Field Service Management plugin (com.snc.work_management) and the PPM Standard plugin (com.snc.financial_planning_pmo).

Customize the work order state transition map

Users with the system administrator role can customize the work order state transition map, which maps work order states to project task states.

Updating the state of a work order also updates the state of the linked project task. The *FieldServicesProjectTaskStateHandler* script maps the work order states to the

project task states. Users with the system administrator role can customize this state transition map as needed based on the following examples.

Examples

Setting the status of a work order to **Close complete** should not close the project task. To make this change, remove the following line in the *initialize()* function:

```
this.workOrderProjectTaskStateMap[FieldServiceProjectTaskStateHandler.WORK_ORDER_STATE_CLOSE_COMPLETE] =
    FieldServiceProjectTaskStateHandler.PROJECT_TASK_STATE_CLOSE_COMPLETE;
```

To map the work order **Pending dispatch** state to the project task **Open** state, add the following line to the *initialize()* function:

```
this.workOrderProjectTaskStateMap[FieldServiceProjectTaskStateHandler.WORK_ORDER_STATE_PENDING_DISPATCH] =
    FieldServiceProjectTaskStateHandler.PROJECT_TASK_STATE_OPEN;
```

To qualify a task automatically once the project task is changed to **Open**, change the *FieldServiceProjectUpdateHandler* process function that listens on project task updates and change the linked work order to **Qualified**. Add the following line after this section:

```
if(taskJSON.change_map && taskJSON.change_map.state){
```

```
    If(taskJSON.change_map.state ==
    FieldServiceProjectTaskStateHandler.PROJECT_TASK_STATE_OPEN
    workOrder.state = FieldServiceProjectTaskStateHandler.
    WORK_ORDER_STATE_PENDING_DISPATCH
    workOrder.update();
```

Integration with Change Management

With ServiceNow Change Management for Field Service, create work orders from a change request and also track the progress of the work order directly in the change record when a state change occurs or a work note is added to the work order.

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Change Management for Field Service provides an integration between the Change Management and Field Service Management applications. The Change Management application enables ITIL agents to create work orders from change requests in the CSM Configurable Workspace and ServiceNow AI Platform application. This integration provides a unified experience to ITIL agents by enabling them to track the progress of a related work order directly in the change request.

Install Change Management for Field Service

You can install the **Change Management for Field Service** application (sn_fsm_chg_mng) if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- **Change Management for Field Service** requires the following plugins. Ensure that these plugins are activated before you install **Change Management for Field Service**.

Required ServiceNow plugins

CSM Configurable Workspace (com.snc.uib.csm_agent_workspace)

Enable your agents to engage with customers, answer questions, create cases, and resolve issues. For more information, see [Set up CSM Configurable Workspace](#).

Role required: admin

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the **Change Management for Field Service** application (sn_fsm_chg_mng) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

3. In the Application installation dialog box, review the application dependencies.

Dependent plugins and applications are listed if they will be installed, are currently installed, or need to be installed. If any plugins or applications need to be installed, you must install them before you can install **Change Management for Field Service**.

4. **Optional:** If demo data is available and you want to install it, click **Load demo data**. Demo data comprises sample records that describe application features for common use cases. Load demo data when you first install the application on a development or test instance.
5. Select **Install**.

Setting up Change Management for Field Service

Install and set up the **Change Management for Field Service** application to track work order progress directly in the change request.

Integration with the **Change Management** application enables ITIL agents to create a work order from change request. After the qualification of this work order, the related work order tasks are created for dispatcher to assign these tasks to the field service agents. Any work note to the task or update the state of the task added by an agent is reflected in the related work order and can be tracked directly from the associated change request.

This integration provides the following benefits for ITIL agents:

- Ability to create a work order from a change request either on the ServiceNow AI Platform or the CSM Configurable Workspace.
 - For information on creating a work order from a change request in ServiceNow AI Platform, see [Create a work order](#).
 - For information about creating a work order from a change request in CSM Configurable Workspace, see [Create a work order from a change request in the CSM Configurable Workspace](#).
- Enables the ITIL agent to track the progress of a work order directly from its parent change request.

This integration automates your system to provide the following benefits:

- Auto-fills some work order fields with relevant information from the change request.
- Synchronizes work order task schedule start and end dates with the change schedule planned start and end dates.
- Enables field service agents to view the related change request details and related lists in the Mobile Agent application.
- Auto-close a change request when all related work orders are closed as completed.

Note:

You must enable the auto-close function in the extension point of a *ChangeWorkOrderIntegration* script to close the change request automatically when the related work order is closed. For more information, see [Using an extension point to synchronize work orders with change requests](#).

Synchronizing data between the work order and the change request

Work notes are synchronized from a related work order to the change request when:

- The work order task state is updated
- Work notes are added to the work order tasks
- The work order task is closed either as complete or incomplete

Using an extension point to synchronize work orders with change requests

Extension points enable you to extend the functionality of an application and integrate customizations without altering the application code. Extension points are stored in the Extension Point [sys_extension_point] table.

The Change Management for Field Service plugin (sn_fsm_chg_mng) adds the *ChangeWorkOrderIntegration* extension point, which creates a logic to enable the synchronization of following configurations:

- Mapping work notes from the work order to the **Activity** section on the change request.
- Auto-closing the change request when the related work order is closed complete.

The default extension points that are provided with an application cannot be modified or deactivated. If modification is necessary, if you have the system administrator role, you can do the following:

- Create an implementation of an extension point.
- Make any necessary changes in the implementation.

- Update the order of the implementation to a lower number. The system executes the implementation with the lowest order number.

Note:

API names used in the implementation must remain the same so the extension point can identify the implementation. Otherwise, an error will result.

Related topics

[Using extension points to extend application functionality](#) 

Create a work order from a change request in the CSM Configurable Workspace

Create a work order directly from the change request using the CSM Configurable Workspace.


Before you begin

Roles required: itil, wm_admin, and sn_change_write

About this task

A change request can accommodate only one work order at a time. You can create another work order for a change request only if an existing work order is canceled.

Procedure

1. Log in to the CSM Configurable Workspace.
2. Click the **List** icon ()
3. In the Lists panel, navigate to **Change > All**
4. Open the change request for which you want to create a work order.
5. Click **Create Work Order**.

Result

A work order is created successfully.

View work order details from a change request using the CSM Configurable Workspace

View or track the progress of a work order in the associated change request from CSM Configurable Workspace.

Before you begin

Enable the activity function using the *ChangeWorkOrderIntegration* extension point. For more information, see [Using an extension point to synchronize work orders with change requests](#).


Role required: itil, wm_admin, and sn_change_read

About this task

ITIL agents can view the progress of a work order directly from a related change request. The change request tracking is updated whenever the following updates are made to the work order or related work order tasks:

- Work notes added to the task
- State of the task is updated

Procedure

1. Log in to CSM Configurable Workspace.
2. Click the **List** icon ()
3. In the Lists panel, navigate to **Change > All**
4. Open the change request for which you want to track the progress.
5. Click the Details related list.
6. View the work order progress in the **Activity** section.

View work order details from a change request using the Mobile Agent application

View the work order details for the related change request from your Mobile Agent application.

Before you begin

Roles required: wm_agent, sn_change_read

Procedure

1. Navigate to the Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, open the task.
4. In the Details tab, tap **Initiated from**.
5. Tap **Details** to view the change request details.

Change management for Field Service components

Various plugins, script includes, and business rules are installed with the Change Management for Field Service application.

Plugin

The Change Management for Field Service application (sn_fsm_chg_mng) plugin must be activated. For more information on the steps to activate a plugin, see [Install Change Management for Field Service](#).

Script Includes installed with Change Management

Script Include	Description
ChangeRequestWorkOrderUtil	<p>Updates the change request work notes when any of the following actions happen:</p> <ul style="list-style-type: none"> • The state of work order changes. • The change request is automatically closed when the work order is closed • The work order is deleted.
ChangeWorkOrderIntegration	<p>Provides the default implementation that helps integrating the change requests with work orders using the extension point.</p>

Business rules

Change Management for Field Service adds the following new business rules.

Business rules installed with Change Management

Business Rule	Table	Description
Cancel Work Order	Change Request [change_request]	Cancels the work order when the change request is canceled.
Populate Window Start/End with Change	Service Order Task [sm_task]	Populates the window start and end dates of the work order task with the planned start and end dates that are defined in the change request.
Update Change with Work Order Changes	Work Order [wm_order]	Updates the change request when the state of the work order changes. Automatically closes the change request if the work order is Closed Complete.
Update Work order deletion to Change	Work Order [wm_order]	Updates the work notes of the change request if the work order is deleted.
Validate Requested Due By with Change	Work Order [wm_order]	Validates whether the requested due by date that is defined on the work order is before the planned end date of the change request.
Validate Window Start/End Date with Change	Service Order Task [wm_task]	Validates whether the window start and end date of the work order task is scheduled within the start and end dates of the change request.

Roles

Change Management for Field Service modifies the following existing role.

Roles updated with Change Management

Role title [name]	Description	Contains roles
Field Service Management Agent [wm_agent]	Manages actual task time and performs work on site. Agents can view parent change request details from the work order task.	sn_change_read

Integration with Incident Management

With ServiceNow Incident Management for Field Service, create work orders from an incident record and also track the progress of the work order directly in the incident record when a state change occurs or a work note is added to the work order.

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Incident Management for Field Service provides an integration between the Incident Management and Field Service Management applications. The Incident Management application enables ITIL agents to create work orders from incident requests in the CSM Configurable Workspace and ServiceNow AI Platform application. This integration provides a unified experience to ITIL agents by enabling them to track the progress of a related work order directly in the incident request.

Install Incident Management for Field Service

You can install the Incident Management for Field Service application (sn_fsm_inc_mng) if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- Incident Management for Field Service requires the following plugins. Ensure that these plugins are activated before you install Incident Management for Field Service .

Required ServiceNow plugins

CSM Configurable Workspace (com.snc.uib.csm_agent_workspace)

Enable your agents so they can engage with customers, answer questions, create cases, and resolve issues. For more information, see [Set up CSM Configurable Workspace](#).

Role required: admin

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Incident Management for Field Service application (sn_fsm_inc_mng) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

3. In the Application installation dialog box, review the application dependencies.

Dependent plugins and applications are listed if they will be installed, are currently installed, or need to be installed. If any plugins or applications need to be installed, you must install them before you can install .

- 4. Optional:** If demo data is available and you want to install it, select the **Load demo data** check box.

Demo data are sample records that describe application features for common use cases. Load the demo data when you first install the application on a development or test instance.

- 5. Select *Install*.**

Setting up Incident Management for Field Service

Install and set up the Incident Management for Field Service application to track work order progress.

Integration with the Incident Management application enables ITIL agents to create a work order from incident record. After the qualification of this work order, the related work order tasks are created so that dispatcher can assign these tasks to the field service agents. Any work note to the task or update the state of the task added by an agent is reflected in the related work order and can be tracked directly from the associated incident record.

This integration provides the following benefits for ITIL agents:

- Ability to create a work order from a incident request either on the ServiceNow AI Platform or the CSM Configurable Workspace.
 - For information about creating a work order from an incident record in ServiceNow AI Platform, see [Create a work order](#).
 - For more information about creating a work order from incident record in CSM Configurable Workspace, see [Create a work order from a change request in the CSM Configurable Workspace](#).
- Enables the ITIL agent to track the progress of a work order directly from its parent incident record.

This integration automates your system to provides the following benefits:

- Auto-fills some work order fields with relevant information from the incident record.
- Synchronizes work order task schedule start and end dates with the incident record planned start and end dates.
- Enables field service agents to view the related incident record details and related lists in the Mobile Agent application.
- Auto-close a change request when all related work orders are closed as completed.

i Note:

You must enable the auto-close function in the extension point of a *IncidentWorkOrderIntegration* script to close the Incident record automatically when the related work order is closed. For more information, see [Using an extension point to synchronize work orders with change requests](#).

Synchronizing data between the work order and the incident record

Work notes are synchronized from work order to the incident record when:

- The work order task state is updated.
- Work notes are added to the work order tasks.
- The work order task is closed either as complete or incomplete.

Using extension point for incident management

Extension points enable you to extend the functionality of an application and integrate customizations without altering the application code. Extension points are stored in the Extension Point [sys_extension_point] table.

The Incident Management for Field Service plugin (sn_fsm_inc_mng) adds the *IncidentWorkOrderIntegration* extension point, which creates a logic to enable the synchronization of following configurations:

- Mapping work notes from the work order to the **Activity** section on the incident record.
- Auto-closing the incident record when the related work order is closed complete.

The default extension points that are provided with an application cannot be modified or deactivated. If modification is necessary, if you have the system administrator role, you can do the following:

- Create an implementation of an extension point.
- Make the necessary changes in the implementation.
- Update the order of the implementation to a lower number. The system executes the implementation with the lowest order number.

Note:

API names used in the implementation must remain the same so the extension point can identify the implementation. Otherwise, an error will result.

Create a work order from incident record in the CSM Configurable Workspace

Create a work order directly from the incident record using the CSM Configurable Workspace.


Before you begin

Roles required: itil, wm_admin, and sn_change_write

About this task

An incident record can accommodate only one work order at a time. You can create another work order for an incident record only if an existing work order is canceled.

Procedure

1. Log in to the CSM Configurable Workspace.
2. Click the **List** icon (.
3. In the Lists panel, navigate to **Incident > All**
4. Open an incident record for which you want to create a work order.
5. Click **Create Work Order**.

Result

A work order is created successfully from the incident.

View work order details from the incident record using the CSM Configurable Workspace

View or track the progress of work order in the associated incident record from CSM Configurable Workspace.

Before you begin

Enable the activity function using the *IncidentWorkOrderIntegration* extension point. For more information, see [Using extension point for incident management](#).


Role required: itil, wm_admin, and sn_change_read

About this task

ITIL agents can view the progress of a work order directly from a related incident record. The incident record tracking is updated whenever the following updates are made to the work order or related work order tasks:

- Work notes added to the task
- State of the task updated

Procedure

1. Log in to CSM Configurable Workspace.
2. Click the **List** icon (.
3. In the Lists panel, navigate to **Incident > All**
4. Open a incident record for which you want to track the progress.
5. Click the Details related list.
6. View the work order progress in the **Activity** section.

View work order details from incident record using the Mobile Agent application

View the work order details for the related incident record from your Mobile Agent application.

Before you begin

Roles required: wm_agent, sn_change_read

Procedure

1. Navigate to the Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, open the task.
4. In the Details tab, tap **Initiated from**.
5. Tap **Details** to view the incident record details.

Incident Management for Field Service components

Various plugins, script includes, and business rules are installed with the Incident Management for Field Service application.

Plugin

The Incident Management for Field Service application (sn_fsm_inc_mng) plugin must be activated. For more information on the steps to activate a plugin, see [Install Incident Management for Field Service](#).

Script Includes

Incident Management for Field Service adds the following new script includes.

Scripts installed with the Incident Management for Field Service application

Script Include	Description
IncidentWorkOrderUtil	Updates the incident record work notes when any the following actions happen: <ul style="list-style-type: none"> • The state of work order changes. • The incident record is automatically resolved when the work order is closed. • The work order is deleted
IncidentWorkOrderIntegration	Provides the default implementation that helps in integrating incidents with work orders using the extension point.

Business rules

Incident Management for Field Service adds the following new business rules.

Business rules installed with the Incident Management for Field Service application

Business Rule	Table	Description
Cancel Work Order	Incident [incident]	Cancels the work order when the incident record is canceled.
Update incident with work order changes	Work Order [wm_order]	Updates the incident record when the state of the work order changes. Automatically closes the incident request if work order is Closed complete.
Update Work order deletion to	Work Order [wm_order]	Updates the work notes of the incident record if the work order is deleted.

Roles

Incident Management for Field Service modifies the following existing role.

Role installed with the Incident Management for Field Service application

Role title [name]	Description	Contains roles
Field Service Management Agent [wm_agent]	Manages actual task time and performs work on site. Agents can view parent incident	sn_incident_read

Role installed with the Incident Management for Field Service application (continued)

Role title [name]	Description	Contains roles
	details from the work order task.	

Integration with Virtual Conferencing

With ServiceNow Field Service Management Virtual Conferencing Integration, collaborate with your customers and peer agents to resolve customer issues using the video and screen sharing options in Zoom and Microsoft Teams from the Now Agent mobile application. Provide timely support while away from your office or desktop computer.

Request apps on the Store

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

Integration with virtual conferencing overview

The Field Service Management Virtual Conferencing Integration application integrates the conference communication channel with the Notify communication channel by managing and initiating a Zoom or Microsoft Teams meeting directly from the Now Agent mobile application.

As an agent, you can use the Field Service Management Virtual Conferencing Integration application to initiate Zoom or Microsoft Teams meetings using the Initiate Conference option in your Now Agent mobile application.

To get started with the Field Service Management Virtual Conferencing Integration, see [Install Field Service Management Virtual Conferencing](#)

How FSM Virtual Conference Integration can work for you



Integration.

Install Field Service Management Virtual Conferencing Integration

You can install the Field Service Management Virtual Conferencing Integration application (com.snc.fsm_vci) if you have the admin role. The application installs related ServiceNow® Store applications and plugins if they aren't already installed.

Before you begin

- Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).
- Field Service Management Virtual Conferencing Integration requires the following plugins. Ensure that these plugins are activated before you install Field Service Management Virtual Conferencing Integration.

Required ServiceNow plugins

Notify (com.snc.notify)

Provides support for SMS and voice channels on the platform. For more information about activating Notify, see [Activate Notify](#).

- Field Service Virtual Conferencing Integration requires the following ServiceNow Store applications. Ensure that these applications are installed before you install Field Service Management Virtual Conferencing Integration.

Required ServiceNow Store applications to integrate Zoom

Zoom Spoke

Integrate the Zoom account of your company with your ServiceNow instance. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Notify Zoom Connector

Associates the Notify communication channel with Zoom meetings. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Required ServiceNow Store applications to integrate Microsoft Teams

Notify Connector for Microsoft Teams

Manage and initiate a Microsoft Teams meeting directly from a task. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Microsoft Teams Communication Spoke

Manage groups calls and meetings in Microsoft Communications account from your ServiceNow instance. For ServiceNow Store installation steps, see [Install a ServiceNow Store application](#).

Role required: admin

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Field Service Management Virtual Conferencing Integration application (com.snc.fsm_vci) using the filter criteria and search bar.

You can search for the application by its name or ID. If you cannot find the application, you might have to request it from the ServiceNow Store.

Visit the [ServiceNow Store](#) website to view all the available apps and for information about submitting requests to the store. For cumulative release notes information for all released apps, see the [ServiceNow Store version history release notes](#).

3. In the Application installation dialog box, review the application dependencies.

Dependent plugins and applications are listed if they will be installed, are currently installed, or need to be installed. If any plugins or applications need to be installed, you must install them before you can install Field Service Management Virtual Conferencing Integration.

4. Select **Install**.

Configure Field Service Management Virtual Conferencing Integration

Install and set up the Field Service Management Virtual Conferencing Integration application to interact with customers and peer agents using Zoom or Microsoft Teams meetings initiated from the Now Agent mobile application.

Before you begin

Role required: admin

About this task

This task provides general steps to set up the Field Service Management Virtual Conferencing Integration application to initiate conference calls using Zoom and Microsoft Teams from the Now Agent mobile application.

Procedure

1. Configure the conference call bridge.
2. Install the Field Service Management Virtual Conferencing Integration application.
For more information, see [Install Field Service Management Virtual Conferencing Integration](#).
3. Add the **Conferences** related list to the work order task form.
If the related list does not already appear, right-click the **Work Order Task** form header and select **Configure > Related Lists**. Use the dual listbox to add the Conferences->Work Order Task related list.

Note:

You must personalize the Conferences related list to get detailed information about the conference recordings for work order tasks. For more information, see [Customize the display of conference recording information](#).

Customize the display of conference recording information

Customize the Conferences related list to display specific information about conference recordings for work order tasks.


Before you begin

Role required: admin

About this task

As dispatcher or a Field Service Manager, you can listen to conference recordings of Zoom and Microsoft Teams meetings held to resolve customer issues.

Procedure

1. Navigate to **All > Field Service Management > Work Order > All Work Order Tasks**.
2. Open a work order task from the list.
3. Open the Conferences related list.
4. Click the personalize list icon () in the upper left corner.
5. Use the dual listbox to move the following items from the **Available** column to the **Selected** column.
 - Number
 - Active
 - Service Provider

- Conference Call ID
- Description
- Duration
- Created by
- Recording

6. Click **OK.**

View details for recorded conference calls

View details for a recorded Zoom and Microsoft Teams meetings initiated from the Now Agent mobile application by accessing the associated conference record for work order task.

Before you begin

Role required: admin, wm_dispatcher, wm_manager, and wm_agent

About this task

You can access recorded Zoom and Microsoft Teams meetings details from conference record of a particular work order task.

Procedure

- 1. Navigate to **All > Field Service Management > Work Order > All Work Order Tasks**.**
- 2. Open a work order task from the list.**
- 3. Click the Conferences related list in the Work Order Task form.**
- 4. Review the details from the Conference list.**
 - To review the Zoom meeting details, open a Zoom recording.
 - To review the Microsoft Teams meeting details, open a Microsoft Teams recording.

Setting up FSM reports and analytics

Set up reports and analytic to offer valuable insights that assist decision-making processes within an organization.

Reports and analytics are essential tools for businesses to gain insights. It provides the following key benefits to help you track and measure your business performance.

- **Performance Evaluation:** Evaluate the performance of various aspects of a business, such as sales, marketing, financials, or operational efficiency. By analyzing key metrics and trends, reports enables you to identify areas of improvement, measure progress towards goals, and make data-driven decisions.
- **Data Visualization:** Provide a visual representation of complex data sets, making it easier to understand and interpret information. Visualizations such as charts, graphs, and dashboards provides a quick understanding of trends, patterns, and relationships within the data, facilitating effective communication and comprehension.
- **Resource Optimization:** Provide insights into resource allocation and utilization. By analyzing data on inventory levels, agent skills, or agent availability, you can optimize your resources, minimize task rejection, and improve operational efficiency.
- **Performance Monitoring:** Enable you to monitor ongoing performance against predefined goals and targets. By regularly reviewing key performance indicators (KPIs) and metrics, you can track progress, identify deviations, and take corrective actions to stay on track.

- **Compliance and Regulation:** Ensure compliance with industry regulations, service level agreements, or legal requirements. By generating reports that demonstrate adherence to specific guidelines, businesses can mitigate risks, maintain transparency, and meet regulatory obligations.

Field Service Management Platform Analytics Solutions

Platform Analytics Solutions contain preconfigured dashboards. These dashboards contain actionable data visualizations that help you improve your business processes and practices.

Platform Analytics Solutions

Platform Analytics data visualizations use Performance Analytics **indicator** data to show you data over time, helping you analyze your business processes and identify areas of improvement. With Platform Analytics Solutions, you can get value from Performance Analytics for your application with minimal setup. You can always create your own objects as well.

To enable the solution for Field Service Management, an admin navigates to **System Definitions** > **Plugins** and activate the Performance Analytics - Content Pack - Field Service Management plugin (com.snc.work_management_pa).

Activating this plugin adds the Performance Analytics option to the Field Service menu. Click this option to view the Field Service Performance Analytics homepage, which includes the following reports:

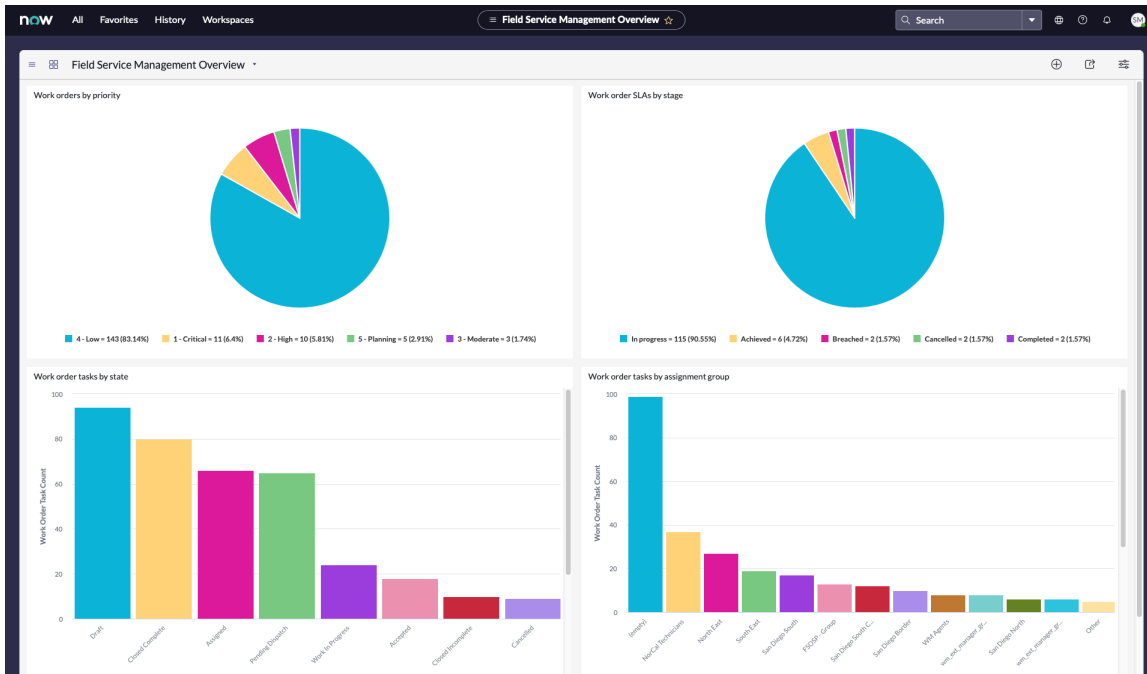
- Percent productive agent time for work order tasks
- Percent utilization of agents for work order task
- Percent actual duration to planned duration for work order tasks
- Average closing time for work orders
- Number of new work orders
- Number of open work orders
- Number of closed work orders

i **Note:**

If you have Performance Analytics installed, the Field Service Management Performance Analytics plugin (com.snc.work_management_pa) is automatically activated as part of the Field Service Management plugin.

Field Service Platform Analytics dashboard

The Field Service Platform Analytics dashboard displays the daily and weekly progress of work orders and work order tasks for your assignment groups.



Required ServiceNow AI Platform roles

- `wm_admin` to Install and activate this Analytics and Reporting Solution.
- The `wm_manager` role is needed to view the performance of work orders and work order tasks.

Access the Field Service Performance Analytics dashboard

To open the dashboard, navigate to **Field Service > Performance Analytics**.

Use cases

For examples of how different people in your organization would use this dashboard, see these use cases.

Field Service Performance Analytics dashboard access by user role

User	Dashboard use
Field Service Manager	<p>Measures overall agent productivity and agent utilization.</p> <p>Compares performance of agents within the assignment group.</p> <p>Measures variance from planned durations of tasks.</p>

Indicators

The Field Service Performance Analytics dashboard presents the following key performance indicators:

Open work orders

Number of work orders that are not yet closed.

Mean time to resolve work orders

The average time taken to resolve work orders.

% Productive time for work order tasks

Number of hours agents spent working on the tasks in the last 60 days.

% Agent utilization for work order tasks

Number of agents assigned to work on the tasks in the last 60 days.

Closed work orders

Number of work orders in the closed state.

Weekly new work orders vs closed work orders

Comparison of total number of work order open in a week, and the number of work order closed in that week

Planned vs Actual duration for work order tasks (hours)

Comparison of total planned hours, for work order tasks and actual time taken to resolve work order tasks by agents.

Weekly Variance from planned work order task duration

Difference in hours between the planned duration and actual time taken to complete the work order tasks in a week.

Breakdowns

- Assignment Group
- State
- Assigned To
- Priority

Filters

Performance Analytics dashboard filters

Name	Type	UI control type	Description
Assignment Group	Reference	Select Single Input	Filter the work order tasks indicator results based on the selected assignment group.

Field Service Performance Analytics dashboard in the configurable workspace

The Field Service Platform Analytics dashboard displays the daily and weekly progress of work orders and work order tasks for your assignment groups.

[Field Service Management](#)

Required ServiceNow AI Platform roles

- wm_admin to Install and activate this Analytics and Reporting Solution.
- The wm_dispatcher role is needed to view the performance of work orders and work order tasks.

Access the Field Service Performance Analytics dashboard

To open the dashboard, navigate to **All > Field Service > Performance Analytics**.

Use cases

For examples of how different people in your organization would use this dashboard, see these use cases.

Use case scenarios for Performance Analytics dashboard

User	Dashboard use
Dispatcher	<p>Measures overall agent productivity and agent utilization.</p> <p>Compares performance of agents across the assignment groups owned by the dispatcher.</p> <p>Measures variance from planned durations of tasks.</p>

Indicators

The Field Service Performance Analytics dashboard presents the following key performance indicators:

Open work orders

Number of work orders that are not yet closed.

Mean time to resolve work orders

The average time taken to resolve work orders.

% Productive time for work order tasks

Number of hours agents spent working on the tasks in the last 60 days.

% Agent utilization for work order tasks

Number of agents assigned to work on the tasks in the last 60 days.

Closed work orders

Number of work orders in the closed state.

Weekly new work orders vs closed work orders

Comparison of total number of work order open in a week, and the number of work order closed in that week

Planned vs Actual duration for work order tasks (hours)

Comparison of total planned hours, for work order tasks and actual time taken to resolve work order tasks by agents.

Weekly Variance from planned work order task duration

Difference in hours between the planned duration and actual time taken to complete the work order tasks in a week.

Breakdowns

- Assignment Group
- State
- Assigned To
- Priority

Filters

Filter options on the Performance Analytics dashboard

Name	Type	UI control type	Description
Assignment Group	Reference	Select Single Input	Filter the work order tasks indicator results based on the selected assignment group.

Configuring Workforce reports and analytics

Configuring workforce reports and analytics involves setting up systems and processes to collect, analyze, and interpret data related to workforce performance and productivity.

You can define key metrics, implement data collection methods, and utilize analytics tools to generate meaningful insights. By configuring workforce reports and analytics, businesses can gain valuable information to optimize workforce management, identify areas for improvement, and make data-driven decisions to enhance overall operational efficiency.

Configuring Predictive Intelligence for Field Service Management

Predictive Intelligence solution definitions helps assisting agents with various tasks.

Predictive Intelligence for Field Service Management provides solution definitions for work orders. These solution definitions recommend similar work orders, knowledge articles, or part requirements based on the text entered in the **Short description** field. For more information about solution definitions and their types, see [Predictive Intelligence](#).

[Activate Predictive Intelligence for Field Service Management](#)

[Predictive Intelligence for defining work order solutions](#)

[Example: Suggest similar part requirements for work order tasks](#)

Activate Predictive Intelligence for Field Service Management

You can activate the Predictive Intelligence for Field Service plugin (com.snc.fsm_mi) for Field Service Management if you have the admin role. The application includes demo data and installs related ServiceNow® Store applications and plugins if they are not already installed.

Before you begin

requires a separate subscription from the rest of the ServiceNow AI Platform.

To purchase a subscription, contact your ServiceNow account manager. When you purchase a subscription, certain plugins are activated automatically. If a paid plugin isn't activated automatically, you can manually activate it from the All Applications list in your instance.

Note:

Before purchasing a subscription, you can evaluate the feature on a non-production instance without charge by requesting it from the Now Support Service Catalog.

Role required: admin

About this task

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Predictive Intelligence for Field Service Management plugin (com.snc.fsm_ml) using the filter criteria and search bar.

You can search for the plugin by its name or ID. If you cannot find a plugin, you might have to request it from ServiceNow personnel.

3. Select **Install** to start the installation process.

Note:

When domain separation and delegated admin are enabled in an instance, the administrative user must be in the **global** domain. Otherwise, the following error appears: `Application installation is unavailable because another operation is running: Plugin Activation for <plugin name>`.

You will see a message after installation is completed. For information about the components installed with a plugin, see [Find components installed with an application](#).

Predictive Intelligence for defining work order solutions

Use your instance records to build solutions to Field Service Management issues.

Solution definitions

Solution definitions are available as templates on instances where both Predictive Intelligence and Field Service Management are active. For more information about solution definitions and their types, see [Predictive Intelligence](#). You can also create your own solution definition records.

Solution Definitions for Field Service Management

Solution Definition	Solution Type	Description
Similar Work Orders	Similarity	Recommends similar work orders based on the text in the Short description field.
Similar Knowledge Articles	Similarity	Recommends similar knowledge articles by comparing the text in the Text, Short Description, and Description fields of knowledge articles to the Short Description field of the work orders or work order tasks.

Solution Definitions for Field Service Management (continued)

Solution Definition	Solution Type	Description
Similar Part Requirements	Similarity	Recommends similar part requirements for work order tasks based on the text in the short description and other insights gathered from the similar work order tasks.
Grouping of Work Orders into Topics	Clustering	Clusters similar work orders into topics based on the text in the Short description field.

Example: Suggest similar part requirements for work order tasks

This example provides a use case of a medical equipment maintenance manager updating and training a similarity definition solution in the Field Service Management application to suggest the similar part requirements for a work order task.

Problem Scenario

Joy, a medical equipment maintenance manager, expressed dissatisfaction with the relatively low initial success rates of servicing medical equipment. This issue emerged primarily because technicians didn't have access to the necessary parts during their first-time visits. To address this problem, the manager must add the part requirements into the work order task based on the previous service history. However, this process is time-consuming and requires a thorough assessment of the tasks.

Solution: Use Predictive Intelligence similarity solution

Joy decides to implement Predictive Intelligence for Field Service Management to improve the task closure rating by automatically suggesting the similar part requirements for work order tasks. This is achieved by training the machine-learning solution to leverage the past service history of the work order tasks.

Now, Joy collaborates with the administrator to train the machine-learning solution provided in Predictive Intelligence for Field Service Management. This solution is designed to collect and compare existing records with new ones. Leveraging the predictive intelligence feature, the administrator trains the Similar Part Requirements similarity solution to automate the process of suggesting the similar necessary part requirements for work order tasks. This is achieved by comparing the part requirement record with the work order task record and providing relevant results.

To train the solution, Joy enters the following values in the Similarity Definition form based on the instructions described for training the similarity solution. For more information, see [Train similarity solution to suggest similar parts for a work order task](#).

Field	Value
Label	Similar Parts Requirements
Name	ml_sn_sn_fsm_ml_global_similar_part_requirements
Table	Part Requirement [sm_part_requirement]

Field	Value
Fields	Short description, Description, Skills, and Asset Display
Test Table	Work Order Task [wm_task]
Test Fields	Description, Short description, skills, and Asset fields
Filter	[Work order task_Asset] [is] [not empty]
Processing Language	English
Stopwords	Default English Stopwords
Training Frequency	Every 30 days
Update Frequency	Every 1 day

Train similarity solution to suggest similar parts for a work order task

Update and train the Similar Part Requirements similarity definition solution to suggest the required parts for a work order task.

Before you begin

Role required: wm_admin

About this task

The Similar Part Requirements similarity solution collects and compares your existing records with new similar records. It helps to suggest the necessary parts for work order tasks that have been frequently used in the past. This solution utilizes the predefined parts requirement record stored in the Parts Requirement table to provide accurate recommendations.

To customize part suggestion based on specific work order task fields, you must modify this similarity solution. For a similarity solution to work correctly, the Part Requirements [sm_part_requirement] table in the Work Order Task [wm_task] database must have at least the required number of records set in the configuration of your ServiceNow instance. The default minimum number required is 10,000.

Procedure

1. Navigate to **All > Predictive Intelligence > Similarity > Solution Definitions**.
2. In the Similarity Definitions list, search for and select the Similar Part Requirements solution definition (ml_sn_sn_fsm_ml_global_similar_part_requirements).
3. On the Similarity Definition form, verify the default field values for part requirements.

Note:

If the application scope isn't set to Predictive Intelligence for Field Service Management application, you can't edit the form and a warning message appears. To make the form editable, click the word **here** at the end of the message.

Similarity Definition form

Field	Description
Label	Unique name for your similarity solution.
Name	As you enter your solution Label value, this field automatically populates with a system-assigned name that's similar to your label value.

Field	Description
Table	<p>Table that contains the part requirements record that you want to compare to other similar records and train against.</p> <p>After you assign a table value, a link appears in the form that shows the number of records that match your filter conditions.</p>
Fields	Field types that contain the text of the part requirements records whose work order tasks you're trying to identify. You can select the columns from the Part Requirement [sm_part_requirement] table for similarity comparison with the work order task short description and other fields.
Test Table	Table that contains the work order task records that you want to compare with the part requirements records.
Test Fields	<p>Fields from the work order task that are likely to contain text that is similar or relevant to the part requirements fields.</p> <p>These fields are used for similarity match with the part requirement fields.</p>
Filter	Filter conditions applied on the field records to filter work order task records for part requirement recommendations.
Processing Language	<p>Dominant language of the dataset you're training on the solution definition. If the dataset language is English, choose English.</p> <p>Note: The term processing indicates some of the language-specific steps used as part of training a solution. These steps might include tokenizing words, removing stop words, and stemming.</p>
Stopwords	<p>Common terms in the processing language that are excluded from the search, for example, prepositions.</p> <p>When you select your processing language, the system automatically adds a Stopwords list that uses the same language. For example, if your processing language is Italian, the Default Italian Stopwords list appears.</p>
Training Frequency	The frequency with which the model for the similarity solution definition must be retrained.
Update Frequency	Frequency of how often to include new records in the model to retrieve the similarity results.

For more information, see [Create and train a similarity solution](#).

4. Optional: In the Training Request Schedule related list, update the schedule for training the Similar Part Requirements solution definition.



By default, the training request schedule is **Periodically** and runs after every 30 days.

5. Click Update & Retrain.

6. Open the Similar Part Requirements solution definition (ml_sn_sn_fsm_ml_global_similar_part_requirements) and in the ML Solutions related list, view the training solution progress in the **Progress** column.

When **Progress** is 100%, in the ML Solutions related list, you can include more useful content in the part requirements suggestions by reviewing the similarity examples based on the similarity score and updating the similarity score threshold value.

7. Optional: Update the similarity score threshold.

- a. In the **Active** column, click the link for the solution.
- b. Review the similarity examples by clicking the **Similarity Examples** related link on the ML Solution form.
For more information, see [Review solution similarity examples](#) .
- c. In the Solution Statistics related list on the ML Solution form, enter the required value in the **Similarity Score Threshold** field, right-click the ML Solution form, and then click **Save**.
For more information, see [Update your similarity score threshold](#) .

Result

When the solution is complete, the required part similar to the fields selected for a work order task are sent as part requirement recommendations.

Using Field Service Management

Use Field Service Management to manage work tasks performed on location. Match tasks to agents based on skills, geographic territory assignments, and available inventory. Collaborate between operations, field resources, and customers through mobile channels.

Prepare work orders

Create work orders, and work order tasks using templates that integrate the right skills and scheduling.

Create, approve, qualify, or close work orders and manage SLAs using the Field Service Management application.

Related topics

[Setting up work orders and tasks](#)

Manage work orders

Work orders are requests for off-site work. Users with the appropriate roles create the work orders and provide the necessary information needed for the work order tasks. Then other users qualify those work orders and create the tasks necessary to complete the work order.

Creating work orders

If you have the `wm_initiator` or `wm_initiator_qualifier` role, you can create work orders. You can create entirely new work orders, or you can create a work order from another record.

Work orders can be created from these other record types: case, incident, change, problem, or project task. They can also be created from another existing work order. For each record, you can create only one work order.

Work orders created from another existing work order

If the scope of an existing work order changes during the execution phase, you can create another work order from it. Analyze whether the scope change can be managed by adding additional tasks instead of creating another work order.


When you create a work order from an existing work order, the following information is copied from the original work order:

- Work order record reference (in the **Initiated from** field)
- Affected CI
- Caller
- Location
- Priority
- Short description
- Description

Because some information is copied from the original record, an existing work order can be used as a template to create new work orders.

Work orders created from an incident, problem, change, or project task record

If an incident, problem, change record, or project task must be assigned to an off-site agent and tracked, you can create a work order from it. Some information from the original record is copied automatically into the new work order.

Record type	Fields copied to the work order
Incident	<ul style="list-style-type: none"> • Incident record reference (in the Initiated from field) • Caller • Location • Priority • Short description • Description <p>For more information, see Integration with Incident Management.</p>
Case	<ul style="list-style-type: none"> • Account • Contact • Affected CI • Location • Asset <p>For more information about creating a work order from the case, see Work orders in CSM Agent Workspace .</p>
Problem	<ul style="list-style-type: none"> • Problem record reference (in the Initiated from field) • Affected CI • Priority

Record type	Fields copied to the work order
	<ul style="list-style-type: none"> • Short description • Description
Change	<ul style="list-style-type: none"> • Change record reference (in the Initiated from field) • Affected CI • Priority • Short description • Description <p>For more information, see Integration with Change Management.</p>
Project task Note: Before work orders can be created from project tasks, Field Service Management must be integrated with Project Portfolio Management	<ul style="list-style-type: none"> • Short Description • Location <p>These work order fields are synchronized with the project task</p> <ul style="list-style-type: none"> • State • Scheduled start • Estimated end <p>For more information about the synchronized fields, see Integration with Project Portfolio Management.</p>

Work orders can be filtered based on different attributes, such as qualification group, location, initiated from, priority, state, and so on. This help to create a group of similar work orders.

Apply a work order template

Work order templates enable users with the proper roles to automatically create work orders, tasks, and part requirements.

Before you begin

Role required: wm_admin or model_manager

Procedure

1. Navigate to **All > Field Service > Work Order > Create New**.
2. Select the desired work order template from the **Template** field and save the form.

The template information is used to:

- Copy the short description, priority, and billable status to the work order. The system also copies the qualification group to the work order form if this field is present. Qualification groups are not required when [automatic qualification](#) is configured. Work orders created

from an incident, problem, or change request display the short description from the source task, even when a template is selected. Tasks for work orders created from templates always display the short description from the task template.

- Create work orders tasks, using the information from the work task templates.

Note:

The fields such as **Territory** and **Dispatch Group** are automatically populated based on the selected **Location** irrespective of the work order template or state only if the *Field_Service_Territories* territory model is enabled. For more information, see [Enable the Field Service territory model](#).

- Create the parts requirements. If a part specified is out of stock, the system displays a message naming the part.

Create a work order

When off-site work is requested, create a work order to provide information for the agents who fulfill the request. You can create an entirely new work order, or you can create a work order from these other record types: problem, incident, change, or project task. You can also create a work order from another existing work order.

Before you begin

Role required: `wm_initiator`, `wm_initiator_qualifier`, or `admin`

Ensure to install the following plugins

- Customer Service with Field Service Management (`com.snc.csm_fsm_integration`) to create case-related work orders from the Customer Service and Consumer Service Portals.
- Customer Service Install Base Management (`com.snc.install_base`) to create work orders against install base items, identify assets, configuration items (CI), or affected install base items.
- Use roles such as `wm_location_agent`, `wm_location_assignment.manager` to restrict work order and task access based on the provider's service organization when the Work Management and Service Organization plugins are installed.

About this task

- In the work order, specify the nature of the work required and identify the configuration items (CI) affected.
- To create work orders for common tasks such as the onboarding of new employees, you can use work order model templates to create all the necessary records automatically.
- Restrict access to work orders and tasks so that users can only view and manage those assigned to their own service organization, ensuring sensitive information is securely managed within the appropriate organization.

Procedure

1. Create the work order.

The work order is created in the **Draft** stage.

If you created the work order from another record, the short description of the original record is copied as the short description of the work order. Some of the work order fields are auto-filled with information from the original record. For details, see [Prepare work orders](#).

2. Fill in the fields on the Work Order form, as appropriate.

Work Order form fields

Field	Description
Number	Auto-generated identification number for the work order.
Company	Company for which the work order was opened. The lookup list shows only those companies designated as Customers in their company record.
Contact	Person that requires the work. The lookup list shows only users associated with the selected Company .
Asset	<p>The asset tag number or the serial number of the asset involved in this case. If there are multiple assets, provide the details of the primary asset and add the rest under Affected Products in the Related Links panel.</p> <p>You can select linear asset only if Enterprise Asset Management is installed.</p>
Affected CI	<p>Primary item that requires work, such as a broken laptop or a printer that needs ink. Configuration Item lookup lists are based on the selected Company. If more than one item requires work, add them to the Affected CIs related list.</p> <p>When assigning CIs to individual tasks, the qualifier and dispatcher can choose only from the CIs in the Work Order Affected CIs related list. The same CI in a work order can be applied to multiple work order tasks.</p>
Part Requirement	<p>Additional parts or assets required to complete the work order.</p> <p>This option is displayed in the Related Links panel and can be applied to the related work order tasks.</p>
Linear Work	<p>Option to indicate that the work order is for a linear asset, and ensure that the tasks are arranged in a single progressive line. Linear Work option is selected by default.</p> <p>This option appears only when a linear asset is selected in the Asset field.</p>
Start location	<p>Geographical area that marks the starting of physical location for a linear asset. Start location field is automatically populated with the location that is mapped with the selected linear asset.</p> <p>This option appears only when a linear asset is selected in the Asset field.</p>
End location	<p>Geographical area that marks the ending of physical location for a linear asset. End location field is automatically populated with the location that is mapped with the selected linear asset.</p> <p>This option appears only when a linear asset is selected in the Asset field.</p>
Requestor Service Organization	<p>Represents the requestor service organization that has initiated creation of the work order. <re word></p> <p>i Note: The Requestor Service Organization field appears only when the Service Organization (com.snc.service_organization) plugin is installed.</p>

Field	Description
Provider Service Organization	<p>Represents the fulfiller service organization. <used for task fulfillment re word></p> <p>Note: The Provider Service Organization field appears only when the Service Organization (com.snc.service_organization) plugin is installed.</p>
Install base item	The install base item you have a question on or issue with.
Location	<p>Geographical area (physical location) where the work must be done. Location field is automatically populated with the location that is mapped with the selected Provider Service Organization.</p> <p>Note: For the work orders that are initiated from case, the Location field is filled automatically based first on the Affected CI field and then, if no affected CI or location is provided, on the Caller.</p> <p>If you do not want to use the auto-populated location, you can add an ad hoc location. For more information, see Setting ad-hoc locations in work orders and work order tasks.</p>
Template	<p>Template for creating this work order (optional). Click the lookup icon and select a template. The description of the selected template will populate the Description field. If you selected Tasks will be dispatched manually in the Field Service Configuration screen, work order tasks that were created for orders that use templates are automatically transitioned to Pending dispatch. For more information on templates, see Creating Service Order Templates.</p> <p>Note: If defined in advance, the template may contain task dependencies, which the tasks in your work order will inherit.</p>
Opened	Date and time the work order was opened.
Priority	Precedence of the work order, based on severity of the impact, number of users affected, or other factors. The SLA applied to this work order is determined by the priority selected in this field.
State	<p>Current stage of the work order in the work order life cycle.</p> <p>Note: The Scheduled state appears in between Pending Dispatch and Assigned states only if your administrator enables Use Scheduled state option in Global domain configurations.</p>
Qualification group	Group that can specify the technical details of the work order. The lookup list shows only the qualification groups associated with the selected Location . If no qualification groups exist for the location, all qualifications groups are listed and any can be selected. This field is hidden when Field Service Management is configured for automatic qualification .
Initiated from	Record number of the original problem, incident, change request, or other work order from which the work order was created.

Field	Description
Billable	Option for issuing a statement of fees or charges for the work order. This is useful for running reports on billable work orders.
Short description	Brief explanation of the work order.
Description	Detailed information describing the work to be performed. Initiators create work orders, but qualifiers should add as much detail about the work to be performed as possible to avoid extra communication with the caller .
Work Notes	Information about the work order and how it was completed. This field is not visible to customers. Work notes are added throughout the work order life cycle to help users who work on it to communicate useful information.
Scheduling	
Scheduled start	Date and time when the earliest task is scheduled to start.
Estimated end	Estimated date when all tasks will be completed.
Actual work start	Date and time when the earliest task actually started.
Actual work end	Date and time when the last task actually ended.
Requested due by	Estimated date when the latest task will be completed. The Lead Time for the maintenance schedule is subtracted from the Requested due by date for the work order to determine this date.

3. Click **Submit** or **Update** to save your changes.

Result

The work order is created and awaits for qualification to create a work order task.

Note:

You must enable the *Apply Work Order template in draft status* option and *wm_task_initiator* role to create tasks for the work order based on the applied template, without qualifying the work order when it is in the draft state. For more information about these configurations, see [Global domain configurations](#) and [Roles installed with Field Service Management](#).

What to do next

After you complete the Work Order form, move it to the next state that is [configured for Field Service Management](#). In the next state, other users with appropriate roles for the state will process the work order.

On the Work Order form, click whichever of the following options is available:

Option	Description
Ready for Approval	Click Ready for Approval to move the work order to the Waiting for Approval state.

Option	Description
	This option appears only when Approval for new request required is enabled in the configuration for Field Service Management.
Ready for Qualification	<p>Click Ready for Qualification to move the work order to the Awaiting Qualification state.</p> <p>A work order task is automatically created if one does not exist. The short description, description, and location of the work order are copied into the task.</p> <p>The Ready for Qualification option is available only when Qualification is required for new requests is enabled in the configuration for Field Service Management.</p>
Ready for Dispatch	<p>Click Ready for Dispatch to move the work order to the Ready for Dispatch state.</p> <p>The Ready for Dispatch option is available only when Approval for new request required and Qualification is required for new requests are disabled in the configuration for Field Service Management.</p>

Example - Create task without qualifying a work order

Create work order tasks and part requirements for a work order without qualifying a work order, when it is in the draft state.

Before you begin

- You must enable *Apply Work Order template in draft status* to automatically create work order tasks based on the templates without the need for qualifying a work order. You can find this option by navigating to **Field Service > Administration > Configuration**.
- To create or edit the work order template, work order task, or part requirements, you must ensure that the work order is in the draft state.

Role required: wm_task_initiator

Procedure

1. Navigate to **All > Field Service > Work Order > Draft Work Orders**.
2. Open work order to which you want to apply template to create work order tasks.
3. In the work order **Template** field, select a template for the work order and save the form. The work order tasks are created based on the selected template.
4. **Optional:** Edit the work order template to create customized tasks.
 - a. In the Work Order Tasks related list, select all the existing tasks.
 - b. From the **Actions on selected rows** list, select **Delete**.
 - c. Go to the Template field and click **Preview this record** to edit the work order template. For more information about editing work order template, see [Create a work order template](#).
5. Create adhoc work order tasks.

- a. In the Work Order Tasks related list, click **New**.
- b. Fill in the required fields.
For more information, see [Create a work order task](#).
- c. Click **Submit**.

Closing work orders and next steps

In Field Service Management, work orders are closed automatically depending on the states of the associated work order tasks. Work orders are closed when all the tasks reach the closed state. It's helpful to understand what happens after an agent closes a work order task.

Role required: `wm_agent`, `wm_ext_agent`.

Work orders are closed in the following scenarios:

- If all work order tasks are marked **Closed Complete**, the work order state changes to **Closed Complete**.
- If at least one work order task is marked **Closed Incomplete**, the work order state changes to **Closed Incomplete**.

After a work order is closed, the time and effort for it are calculated automatically. The work order also becomes inactive and is removed from the list of work orders.

After an order has been assigned to an agent, that agent can complete and close the order under two conditions:

- When the **Request lifecycle is task driven** configuration option is enabled, all states of the work order are driven by the task. The agent can click the **Close Complete** button on the Work Order Task form to close any tasks that need to be closed manually. After all of the work order's tasks are closed, the work order is closed automatically.
- When the **Request lifecycle is request driven** configuration option is set and all of the work order's tasks are closed, the agent to whom the work order is assigned can click the **Close Complete** button on the Request form to close and complete the order.

Cancel a work order

Cancel a work order if the work is no longer necessary or if it is a duplicate of another work order.

Before you begin

Role required: Work orders can be canceled by users with different roles during specific states in the work order life cycle.

About this task

When you cancel a work order, all associated work order tasks are also canceled.

Work orders and work order tasks cannot be canceled while in **Closed Complete** or **Closed Incomplete** state.

Work orders and work order tasks can be canceled by users with these roles:

User roles

Role	Description
Initiator	Can cancel a work order, which automatically cancels all associated work order tasks.
Qualifier	Can cancel work orders and work order tasks.
Dispatcher	Can cancel work orders and work order tasks.
Agent	Can cancel work order tasks assigned to them.
Field Service Management Administrator	Can cancel any active work order or work order task at any time.

Procedure

1. Navigate to **All > Field Service > All Work Orders**.
2. Click the work order.
3. In the **Work notes** field, enter a reason for canceling the work order.
A reason is required for canceling work orders. If you do not provide a reason, an error message prompts you to enter one in the **Work notes** field.
4. Click **Cancel**.

Delete a work order

For tracking purposes, you should close or cancel an existing work order that is no longer in use. Closed and canceled work orders are inactive and don't appear on work order lists. Avoid deleting a work order unless you're cleaning up errors, such as duplicate work orders.

Before you begin

Role required: wm_admin

About this task

Deleting a work order automatically deletes associated work order tasks, so agents aren't assigned work order tasks that are part of a deleted work order.

Procedure

1. Navigate to **All > Field Service > All Work Orders**.
2. Click the work order.
If work order tasks have part requirements with transfer orders, the work order tasks won't be deleted. Before deleting the work order, delete transfer orders attached to work order tasks.
3. Click **Delete**.
4. Confirm the action when prompted.

Field Service Management SLAs

ServiceNow SLAs track the service level provided by groups and individuals.

When you create a work order, the system automatically assigns it a default [Service Level Management concepts](#) based on priority level. If you change the priority of the work order, the system cancels the current SLA and applies the SLA appropriate for the new priority. The SLA timer continues to run even if the priority is changed. The three default SLAs used for work orders are:

Default SLAs

SLA	Description
WM - 5 business days	Assigned to work orders with a priority level of 4 (Low)
WM - Next business day	Assigned to work orders with a priority level of 3 (Moderate)
WM - Same business day	Assigned to work orders with a priority level of 2 (High) or 1 (Critical)

Users with the `wm_admin` role can create and edit SLAs or delete them from work orders. Changes to an SLA are used in new work orders, but they do not affect existing work orders that use the SLA.

Note:

The SLA applies to the work order. All associated work order tasks must be completed within the SLA time period to meet the SLA.

SLA details show on the task card in the task panel and the calendar in the Dispatcher Workspace. The number on the card in the task panel is the amount of time remaining before the SLA is breached. The horizontal line that appears under the task in the calendar view is a task bar. The bar and the number in the task panel, indicate the state of task SLA with different colors based on the following SLA durations.

SLA duration	Bar color
Below 50%	Green
In-between 50% and 75%	Yellow
In-between 75% and 100%	Orange
Above 100% (breached)	Red
Paused	Gray

Related topics

[Manage a work order SLA](#)

Use an SLA map

View open work order tasks and their SLA status.

The SLA map view allows users with the `wm_admin`, `wm_dispatcher`, or `dispatcher` combination role to quickly see open work order tasks that are in danger of breaching their SLAs.

When the SLA map appears, the view is centered on the logged in user's location, from the **Location** field on the user record. Each task's icon color indicates the level of the SLA's **Business elapsed percentage**. This is the percentage of the SLA duration that has expired on the applicable business calendar, if one exists.

For example, a work order with an SLA of 5 business days starts on a Friday. On Tuesday the actual elapsed percentage for the SLA reaches 100%. However, the business elapsed percentage does not reach 100% until Thursday, because the business calendar shows that a business day runs from 8am to 5pm on weekdays. If the SLA breaches on Thursday, the business elapsed percentage continues upward from 100% until the task is completed. If no business calendar is in use, the business elapsed percentage equals the actual elapsed percentage.

Access an SLA map

How to access the SLA map.

Before you begin

Role required: wm_admin, wm_dispatcher, or dispatcher combination role

Procedure













To access the SLA map, navigate to **Field Service > Dispatching > My SLA Map**.

The map opens in the geographical area containing work orders with SLAs that are assigned to your dispatch group.

SLA map symbols

Icons in the SLA map and what they represent.

SLA map symbols

Icon	Description
	Current location of an agent selected in the filter. Agents identified with this icon are on time or ahead of schedule.
	Current location of an agent who is less than 30 minutes behind schedule.
	Current location of an agent who is between 30 and 60 minutes behind schedule.
	Current location of an agent who is at least one hour behind schedule.
	Last known location of an agent who is not currently on the schedule or working on any tasks.
	Tasks with a business elapsed percentage from 0 to less than 25.
	Tasks with a business elapsed percentage from 25 to less than 50.
	Tasks with a business elapsed percentage from 50 to less than 75.
	Tasks with a business elapsed percentage from 75 to 100.
	Multiple active tasks with SLAs, clustered by proximity.
	Multiple agents, clustered by proximity.
	Sum of agents and tasks with SLAs, clustered by proximity.

Filter an SLA map

How to filter the SLA map.

Before you begin

Role required: wm_admin, wm_dispatcher, or dispatcher combination role

Procedure

1. Click **View Filter**.

These filters are available:

- **Date:** Select the date you want to search.
- **Show agents current location:** Show or hide agent locations on the map. By default, all agents are shown.

2. Select the desired filters.

3. Click **Apply Filter** to apply your changes to the map.

Manage a task that has an SLA

How to access and manage tasks with SLAs.

Before you begin

Role required: wm_admin, wm_dispatcher, or dispatcher combination role

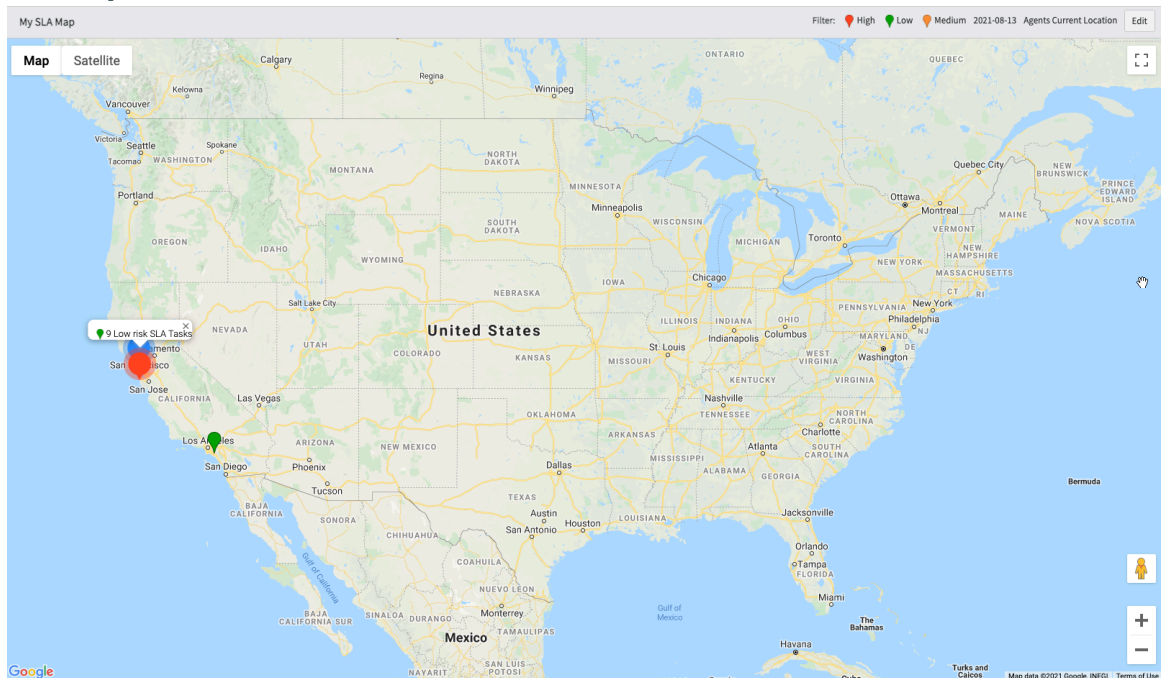
Procedure

1. Click the task icon to display a pop-up window with these SLA details:

SLA details

Title	Description
SLA	Name of the SLA.
Time left	Business elapsed time remaining on the SLA.
Priority	Task priority by number, where 1 is the highest and 5 the lowest.
Skills Needed	Skills needed to perform the work.
Parts Needed	Parts needed to perform the work.

SLA map detail



2. Click the task number link to display the record in a pop-up window in the map.
3. Select the **Task SLAs** related list to view the SLA details.
4. The list shows the following SLA values:

SLA values

Title	Description
SLA	Name of the SLA. Click this link to view the SLA definition and its schedule.
Start time	Time the SLA started.
Stage	Status of this SLA, such as In progress , Completed , or Breached .
Business elapsed percentage	Percentage of time that has elapsed for this SLA on the business calendar. If no business calendar exists, then this value is the same as the actual elapsed percentage.
Business time left	Amount of time remaining for this SLA on the business calendar. If no business calendar exists, then this value is the same as the actual time remaining.

Assign work orders for linear assets in Field Service Management

In Field Service Management, you can create and view work orders and work order tasks specifically for the inspection of linear assets. This enables you to systematically assess the condition of the assets and take the necessary measures to maintain the reliability and performance of the linear assets.

Initiators, qualifiers, and dispatchers can create and manage work orders and work order tasks for linear assets using the service location maps accessed through the CSM and FSM Configurable Workspace.

Additionally, agents can manage assigned work order tasks for linear assets using the Now Mobile Agent application. They can also create work orders for specific segments that require maintenance, repair, or other types of work. For more information, see [Linear assets on Mobile Agent](#).

Create work order for a linear asset using a map

Create a work order for tracking and managing work on a linear asset and its corresponding segments.


Before you begin

Role required: wm_initiator and wm_dispatcher


About this task

Creation of work order for a linear asset enables you to leverage the linear asset's geometry on the service location map and choose the appropriate start and end locations or pinpoint the work location accurately.

Procedure

1. Navigate to **All > Workspaces > CSM/FSM Configurable Workspace.**
2. Select the List icon ()
3. Select **Work Orders > Created by me** and then select **New**.
4. On the form, fill in the **Company**, **Caller**, and **Affected CI** fields.

5. Define the location for the affected linear assets.

a. Search for the affected linear assets segments on the map by selecting the Select an asset icon () in the **Asset** field.

b. Display linear assets only of a specified type on the map by selecting an overlay.

For example, to display only streets and roads, you could select Roadways.

By default, the map loads your current service location, which you need to change to the work location for the linear asset.

c. Enter the work location in the **Search** address bar.

When the map displays the desired area, you can use the zoom controls to zoom in.

The linear asset segments are represented on the map with a solid green line.

d. Define the precise work location for a linear asset by selecting either multiple segments or a single point location.

- To specify the segment that requires work by selecting the start and end locations directly on the linear asset itself, select **Line** and drag the marker.

When a segment is selected, the **Segments** field is automatically populated with either a single or multiple segment values depending on the number of segments selected. Additionally, the **Start location** and **End location** fields are populated with the appropriate physical location values for the chosen segment.

- To select a specific point location along the linear asset or choose a separate location that is relevant to the work being performed, select **Point**.

When a specific location is pinpointed along the linear asset, the **Location** field is automatically populated with the selected physical location values for that particular point location.

e. Select **Submit**.

The Linear Work option appears and enabled by default. The start and end locations are also populated automatically based on the length of the linear asset segment.

6. Select **Save**.

The form closes and you are automatically redirected to the newly created work order record.

7. **Optional:** View the total number of affected segments selected by selecting **Affected Products**.

What to do next

Create a work order task for the new work order. For more information, see [Qualify a work order](#). You can create multiple work order tasks to track and manage an individual task for your linear asset work order.

Create a work order for the planned work

Planned work records enable the scheduler to create future, everyday (on regular basis), or on-demand work orders based on the associated work schedule.

Related topics

[Planned Work Management](#)

Create work orders for upcoming days

Determine work orders in advance for the upcoming period in future, for example, for the next 30 days, one year, or more. It helps to plan the work force and required parts for the upcoming planned work.

Before you begin


You must set the following parameters:

- Select the **Forecast work orders** check box in the Work Plan form.
- Populate the **Days in future to create work orders** field in the Planned Work Schedule form with the desired value.

Role required: sn_fsm_planned_wm.planned_work_admin

About this task

You can also create planned work orders through the Planned Work Management Workspace.

Navigate to **All > Planned Work Management > Workspace**, and then click the List icon ().

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Plans**.
2. Open a desired plan from the list of work plans.
3. In the Planned Work Schedules related list, select a schedule to which you want to associate a work order template.
4. In the Related Links section, click **Generate work order**.

Result

A list of work orders is auto-generated for the selected period in future.

Run a scheduled job to execute a planned work schedule

Planned work schedules are executed whenever the meter, duration, script, or condition criteria meets. You can also use the Schedule ad-hoc feature to run a maintenance schedule manually.

Before you begin

Role required: admin

About this task

Planned work schedules run regularly using the *Planned Maintenance Nightly Run* scheduled job. When the scheduled job runs, the appropriate work orders are created for all records that meet the schedule criteria (including all records for the current day).

You must configure the nightly planned maintenance schedule job to run the planned work schedule.

Procedure

1. Navigate to **All > System Definition > Schedule Jobs**.
2. In the **Search** field, enter **Planned Maintenance Nightly Run**.
3. Select **Planned Maintenance Nightly Run**.
4. To specify a different schedule for running the job, change the **Run** and **Time** fields.
A scheduled job does not run based on the value set in the Next run time field in the maintenance plan record for this job. For more information, see [Configure a work schedule](#).
5. Click **Update**.

6. At any time, to run the scheduled job, click **Execute Now**.

Note:

The scheduled job evaluates all previously defined schedules and executes the ones that are scheduled to run.

If one or more records in the table associated with the work plan are deleted after the matching records were associated with the work plan, the next nightly run removes all the records associated with those removed assets.

Run a planned work schedule on demand

Planned work schedules mainly run using the *Planned Maintenance Nightly Run* scheduled job. However, you can make the schedule to run immediately or change the date when a schedule should run, if needed.

Before you begin

Role required: admin

About this task

When you run a planned work schedule on demand, all of the next run dates for the relevant planned work records are updated to the user-defined time, now or in the future. All the appropriate work orders are created. If the schedule is meter, condition, or script-based, work orders are created for work plan records that meet the schedule criteria.

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Plans**.
2. Open a work plan that contains the schedule to run.
3. In the Planned Work Schedules related list, select the maintenance schedule you want to run.
4. In the Related Link section, select **Run on demand**.

Create work orders for schedule occurrences

Create work orders for schedule occurrences to maintain a record of specific occurrences or maintenance cycles of the schedule. The work orders that are generated for each schedule occurrence are mapped to their corresponding occurrence, enabling the tracking of activities performed for different maintenance cycles.

Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin

About this task

You can generate a single work order or multiple work orders for a schedule occurrence depending on the number of work order templates associated with it. For example, if two work order templates are configured for a work schedule, the system generates two work orders for that particular schedule occurrence, based on each template.

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Plans**.
2. Open the work plan.
3. In the Planned Work Schedules related list, select the schedule for which you want to review the schedule occurrences.

4. In the Schedule Occurrences related list, select the schedule occurrence for which you want to create work orders.
5. In the Related Links section, select **Generate work order**.
6. **Optional:** View the work orders associated with the event from the Work Orders related list.

Result

A list of work orders is automatically generated for the selected schedule occurrence, taking into account the number of work order templates associated with the schedule.

Related topics

[Associate a work order template to a work schedule](#)

Work plan example

You can create a work plan to define a maintenance schedule for multiple assets based on their installation date.

The following image illustrates the maintenance plan for two assets installed on different dates.



For example, A hospital has two MRI machines installed on different dates and hence follows a different life cycle. Create a flexible work plan for 15 years to provide the maintenance service to these assets at the following intervals based on their installation date:

- Perform the first two warranty maintenance at the interval of 365 days from the date of installation.
- After the first two warranty maintenance are over, perform maintenance every two years for the next eight years.
- After ten years, perform maintenance every year.

Define a maintenance schedule for multiple assets

To schedule a warranty maintenance for assets based on their installation date, define a general plan by applying filtering conditions to the assets table, [alm_assets] to identify the matching record of assets require maintenance.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Field Service > Planned Work Management > Plans**.
2. Click **New** and create a work plan.
 - **Name:** Hospital device maintenance plan
 - **Type:** general

- **Table:** alm_asset
- **Filter condition:** active is true

3. Click Submit.

The work plan is created successfully and applied to the matching records from the [alm_asset] table.

4. Configure multiple schedules for the work plan.

To	Do this
Create first schedule	<p>a. In the Planned Work Schedules related list, click New.</p> <p>b. Enter the following values in the fields.</p> <ul style="list-style-type: none"> ○ Name: Warranty maintenance ○ Trigger: Duration ○ Trigger type: Interval ○ Repeat: 365 days ○ Start planned schedule based on: field value ○ Effective start_reference: Installed ○ End planned schedule based on: Frequency ○ Frequency: 2 <p>c. Click Submit.</p>
Create second schedule	<p>a. In the Planned Work Schedules related list, click New.</p> <p>b. Enter the following values in the fields.</p> <ul style="list-style-type: none"> ○ Name: Schedule for 2-8 years ○ Trigger: Duration ○ Trigger type: Annually ○ Annually type: Fixed ○ Repeat every: 2 ○ Start planned schedule based on: Schedule ○ Schedule: Warranty maintenance ○ End planned schedule based on: Frequency ○ Frequency: 4 <p>c. Click Submit.</p>

To	Do this
Create third schedule	<p>a. In the Planned Work Schedules related list, click New.</p> <p>b. Enter the following values in the fields.</p> <ul style="list-style-type: none"> ○ Name: Schedule for remaining years ○ Trigger: Duration ○ Trigger type: Annually ○ Annually type: Fixed ○ Repeat every: 1 ○ Start planned schedule based on: Schedule ○ Schedule: Schedule for 2-8 years ○ End planned schedule based on: Frequency ○ Frequency: 5 <p>c. Click Submit.</p>

5. Complete the remaining configurations.

For more information, see [Associate a work order template to a work schedule](#) and [Create planned work records](#).

6. Create work orders for the planed work.

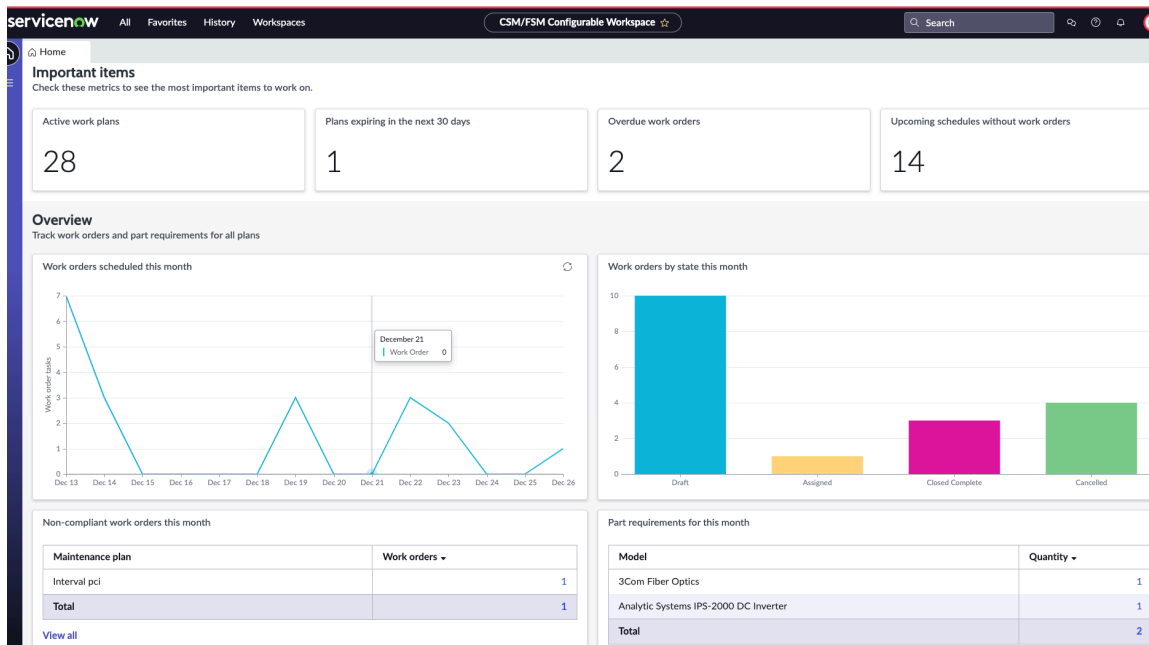
For more information, see [Create a work order for the planned work](#).

Result

The Hospital device maintenance plan schedules all assets for maintenance based on their installation date as mentioned in the [15 years Maintenance Plan](#) image.

Planned Work Management Home page

Planned Work Management Home page enables you to monitor your work plans, schedules, and work orders.



End user and roles

Planned Work Management end user roles and goals

End user and goal	Required role
<p>As a planned work admin, you can:</p> <ul style="list-style-type: none"> Analyze the work plans and work order the most important items to work on. Track work orders and part requirements for all plans 	sn_fsm_planned_wm.planned_work_admin

Access the Planned Work Management Home page

Planned Work Management Home page is part of the CSM/FSM Configurable Workspace, home page.

To open the Planned Work Management Home page, navigate to **All > Planned Work Management > Workspace**.





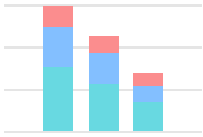
Use cases

Planned Work Management dashboard access by user role

User	Dashboard use
Planned work admin	Monitor the work plans, work schedules, and work orders. This helps to keep track of scheduled, upcoming, and overdue work orders for the work plan.

Data visualizations

Dashboard data visualization types

Title	Type	Source table	Description
Active plans	Single Score 		Number of work plans that are in active state.
Plans expiring in the next 30 days	Single Score 		Number of work plans that are going to expire in the coming 30 days.
Overdue work orders	Single Score 		Number of work orders that are overdue.
Upcoming schedules with no work orders	Single Score 		Number of schedules for which no work order is generated.
Scheduled work orders	Line and Stacked bar chart		Display the work orders that are scheduled for the given date.
Work orders by state	Stacked bar chart 		Display the number of work orders by their state, such as Draft, Closed Complete, and more.
Non-compliant work orders	List		Display the number of work orders that are not compliant with the corresponding maintenance plan.

Plan calendar

As a planned work administrator or planner, you can manage schedule occurrences and work orders for planned work directly from the calendar. You can review event occurrences, cancel any duplicate work orders, generate new work orders, or make modifications to the schedule occurrences as needed.

The CSM/FSM Configurable Workspace contains the Planning calendar. The calendar accommodates the schedule occurrences and work orders of a work plan. To access the calendar, navigate to **All > Field Service Management > Planned Work Management > Workspace**


The planning calendar facilitates the following tasks:

- Viewing schedule occurrence
- Canceling schedule occurrence
- Generating work orders
- Viewing work order details
- Canceling work orders

Viewing the planning calendar

The planning calendar displays work order or schedule occurrence events that are created for planned work entities, such as assets, configuration items (CIs), or locations, for a single day, week, or two-week period. The schedule reflects the user's time zone.

You can navigate forward or backward in time or switch between views using buttons in the calendar header.

The **Settings** pane, accessed through the gear icon () , enables you to control the display of the calendar.

Settings form

Field	Description
Group by	Criteria used to organize assets, install base, configuration items (CIs), and locations into groups. The available values are Plan, Product model, Location, or None.
Records per group	The number of events to display per group on the calendar display.
Calendar events to show	The type of event to be displayed on the calendar, either schedule occurrences or work orders.

The **Filter** pane, accessed through the filter icon () enables you to determine the information you want to view on the calendar.

Filter options

Filter	Description
Plans	Displays records of a specified plan
Plan types	Displays records of a specified plan type
Plan categories	Displays records of a specified plan category

Create and view events using the planning calendar

Create and view the schedule occurrences and work orders of associated work plans through the planning calendar.



Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin

About this task

The calendar displays either single events or stacked events when multiple events are scheduled simultaneously.

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Workspace**
 2. Select the **Planning calendar** icon ()
 3. **Optional:** Generate work orders for the schedule occurrence by right-clicking the event and selecting **Generate work orders**.
A list of work orders is automatically generated for the selected schedule occurrence, taking into account the number of work order templates associated with the schedule.
 4. **Optional:** View schedule occurrence event details.
 - a. Select the event that you want to view.
 - b. Review the event details in the **Details** section of the Schedule Occurrence contextual panel.
 5. **Optional:** View work orders for the schedule occurrence event in the contextual panel by right-clicking the event and selecting **View work orders**.
 6. **Optional:** Determine the information that you want to display on the calendar.
 - a. Select the Filter icon ().
 - To view records of a specific plan, select **Plans** and select a plan.
 - To view records based on the plan type, select **Plan types** and select a plan type.
 - To view records based on the plan category, select **Plan categories** and select a plan category.
 - b. Optionally, select **Save as default** to save the filters you've selected.
- Note:** (Optional) You have the option to choose multiple plans, plan types, or plan categories, either individually or in various combinations.
- c. Select **Apply**.

Cancel events using the planning calendar

Cancel a schedule occurrence and the work order events of its associated work plans through the planning calendar.

Before you begin

Role required: sn_fsm_planned_wm.planned_work_admin

Procedure

1. Navigate to **All > Field Service Management > Planned Work Management > Workspace**
2. Select the **Planning calendar** icon (📅).
3. On the calendar, select the **Show settings** icon (⚙️).
4. In the **Settings** pane, fill in the fields.

Settings form

Field	Description
Group by	Criteria used to organize assets, install base, configuration items (CIs), and locations into groups. The available values are Plan, Product model, Location, or None.
Records per group	The number of events to display per group on the calendar display
Calendar events to show	The type of event to be displayed on the calendar, either schedule occurrences or work orders.

5. Select **Apply**.
6. Cancel the event.

Qualify a work order

Work orders must be qualified to ensure that work order tasks are created and assigned. The qualifying process can be automatic or manual.

Depending on how the [Qualification is required for new requests](#) option is set in the Field Service Management configuration, the qualifying process is manual or automatic.

Manual qualification

When **Qualification is required for new requests** is enabled, the qualifying process is manual. Each work order must go through these states of the process:

Awaiting Qualification > Qualified

In the Awaiting Qualification state, all the work order tasks must be qualified by a user with the appropriate role.

Qualifiers, who are users with the `wm_qualifier` role, select the dispatch group, add work order tasks, and define part requirements. Qualifiers can also edit the affected CI, short description, and description for work orders.

After all the tasks are qualified, the work order is moved to the Qualified state.

Work orders tasks can be qualified individually or in bulk.

Automatic qualification

When **Qualification is required for new requests** is disabled, the qualifying process is automatic. The work order is automatically qualified and moved directly to the next state that is configured for Field Service Management.

A task is also automatically created for each qualified work order. These work order tasks are automatically qualified but must still be manually moved to the dispatch queue. Users with the `wm_initiator_qualifier` or `wm_admin` roles can move the work order tasks.

Filtering available dispatch groups

The following table describes the properties that control whether the choice-list of available dispatch groups is filtered by proximity to the task location.

Mechanism	Name	Purpose
SM Config setting	use_location	Master toggle in the local Service Management configuration that controls whether location/proximity is used in agent recommendations
Property	autodispatch.geolocation	Enables geolocation-based distance calculations for auto-dispatch
Property	travel.calculation.auto_assignment	Specifies map provider for manual/auto assignment (defaults to Google Maps API)
Property	travel.calculation.dynamic_scheduling	Specifies map provider for dynamic scheduling (defaults to straight-line estimate)
Property	work.spacing	Task spacing in hours, affects travel time calculations between tasks

Request additional information to qualify a work order

Transfer orders move necessary parts to the location where the agent can receive them. If there is not enough information to create a transfer order, the dispatcher can request more details from the qualifier.

Before you begin

Role required: `wm_dispatcher` or `wm_admin`

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatch Queue**.
2. Open a work order task in **Pending Dispatch** state.
3. In the **Work Notes** field, enter a reason for returning the work order.
4. Click **Request more information**.

The task state changes to **Draft** and the work order state changes to **Awaiting Qualification**. If Field Service Management is configured for **automatic qualification**, the work order state remains at **Qualified**.

Qualify a work order

When a work order is assigned to you for qualification, review and qualify its tasks to ensure that they contain enough information for the groups that are dispatched to work on them. Qualifying work order tasks is required only when Field Service Management is configured for manual qualification.

Before you begin

Role required: `wm_qualifier`

About this task

If Field Service Management is configured for automatic qualification, you do not need to complete this process. Work orders are automatically qualified and tasks are automatically created for them. For details on manual and automatic qualification, see [Qualify a work order](#).

On the Work Order form, you can qualify tasks from the Work Order Tasks related list. You can qualify a single task or multiple tasks at the same time. While you qualify a single task, you can also qualify any sibling tasks, which are different tasks that are related to the same order.

Note:

If Field Service Management is configured to automatically assign tasks, you must also select a dispatch group for each work order task. If you do not select a dispatch group, you are prompted to select one before you can qualify the task.

Procedure

1. Navigate to **All > Field Service > Work Order > Awaiting Qualification**, and click a work order.

Trouble?

If you do not see the **Awaiting Qualification** module, Field Service Management is configured for automatic qualification.

2. To qualify a single work order task and any of its sibling tasks:

a. In the Work Order Tasks related list, click the task.

b. On the Work Order Task form, click **Qualified**.

c. From the Sibling Tasks related list, qualify any sibling tasks.

You can either click a single sibling task to qualify, or select multiple sibling tasks from the list to qualify. After you select multiple tasks, select **Qualified** from the **Actions** choice list.

3. To qualify multiple work order tasks:

a. In the Work Order Tasks related list, select the check box next to each task.

b. From the **Actions** choice list, select **Qualified**.

Move a work order task to the dispatch queue

If Field Service Management is configured to automatically qualify work orders, tasks are also automatically created for the orders. When one of these automatically created tasks is assigned to you, select a dispatch group for it and move it to the dispatch queue.

Before you begin

Role required: `wm_initiator_qualifier`, `wm_admin`, or `admin`

Procedure

1. Navigate to **All > Field Service > Work Order > My Work Order Tasks**.

2. Click a task in the Draft state.

3. On the Work Order Task form, make sure that a **Dispatch group** is selected.

4. Click **Ready for Dispatch**.

Manage work order tasks

Use work order tasks to define separate activities that must be done to complete a work order.

A work order contains one or more work order tasks. These tasks allow qualifiers to define separate activities that must be done to complete a work order.

When a user with the `wm_qualifier` role or a qualifier combination role moves a work order from **Draft** to **Awaiting Qualification**, a work order task is automatically created and populated with information from the work order. This user can edit existing tasks or create new tasks at any time.

A key feature in Field Service Management is the ability to create multiple work order tasks under a single work order. Splitting a work order into separate tasks, when necessary, enables qualifiers to:

- Assign different aspects of a single work order to different agents.
- Assign work to agents with different skill sets.
- Assign work to agents in different locations.
- Schedule parts of the work at different times.
- Schedule tasks so they are done one after another.
- Schedule tasks so they are done at the same time by different agents.
- Schedule additional tasks, if necessary, to complete the work order.
- Coordinate the arrival and usage of the parts required to complete a work order.

Create a work order task

Create a work order task from a work order.

Before you begin

Role required: `wm_qualifier` or [qualifier combination role](#)

About this task

These users can edit schedule times, including task windows and planned durations. The **Estimated end** time is calculated from the expected start time and the work duration and is read-only.

Schedule task roles

Role	Edit capabilities
<code>wm_qualifier</code>	Tasks in the Draft state.
<code>wm_dispatcher</code>	Tasks in the Pending Dispatch state.
<code>wm_admin</code>	Tasks in Draft or Pending Dispatch state.
<code>wm_task_initiator</code>	Tasks in the Draft state.

Note:

You must enable the *Apply Work Order template in draft status* option and `wm_task_initiator` role to create tasks for the work order based on the applied template, without qualifying the work order when it is in the draft state. For more information about these configurations, see [Global domain configurations](#) and [Roles installed with Field Service Management](#).

Procedure

1. Open a work order.
2. Click the Work Order Tasks related list.
3. Click **New**.
4. On the form, fill in the fields.

Work Order Task form

Field	Description
Number	Auto-generated identification number for the task.
Parent	Work order this task is assigned to.
Cloned from	Record number of the work order task that this task was cloned from, if any.
Priority	Priority of this task.
Asset	Parts required to execute the task.
Install base item	The install base item that user has issue with.
Location	<p>Geographical area where the work needs to be done. The location is critical for determining the agent assigned to the task.</p> <p>If you do not want to use the auto-populated location, you can add an ad hoc location. For more information, see Setting ad-hoc locations in work orders and work order tasks.</p>
Template	Template for creating this work order task. Click the lookup icon and select a template.
Skills	<p>Abilities necessary to execute the task. This field is automatically set based on the values in the Affected CI field on the parent work order. If you change the affected CI on the work order, then any skills required by the new CI are added here.</p> <p>If you want to identify mandatory skills for agents executing the tasks, you must confirm the form to display the Task-Skill table.</p>
Under warranty	Indicator of an existing warranty for one or more configuration items that are associated with the task.
State	Current state of the task. The field is automatically set as users complete the work for each successive state.
Sub state	<p>Provides a more detailed status update within the broader State field.</p> <ul style="list-style-type: none"> ○ When an agent reaches the work location, the system automatically updates the sub state to Onsite Arrival. ○ When an agent initiates their journey, the sub state is set as On Route. These updates can be triggered by geofencing technology or other location-based tracking methods.
Territory	If the Territory Planning plugin is active and the territory model is enabled, the system automatically populates the best-matched territory based on the task's location. If there are multiple eligible territories, the system will populate

Field	Description
	<p>the lowest ranked one, taking into account capacity and reservations if the corresponding plugin is installed.</p>
<p>Dispatch Group</p>	<ul style="list-style-type: none"> ○ Group that can select an agent to complete the task. By default, you can only select groups that belong to the location of the task. If no dispatch groups exist for the location, all dispatch groups are listed for assignment of the tasks. ○ The best match dispatch group is automatically populated based on the territory mentioned in the task only if the <i>Field_Service_Territories</i> territory model is enabled. For more information, see Enable the Field Service territory model. <p>Note: If multiple dispatch groups are populated based on the territory, then you have to select the dispatch group manually from the list.</p>
<p>Assignment group</p>	<p>Group that has the individual agent or vendor who will complete the task. By default, this field shows the recommended assignment groups based on the location, asset, and skills for the task. If the field is empty, the system searches for the group covering the territory that includes the location of the task.</p> <p>Note: If there are multiple assignment groups that can be serviced for a work order task, then the potential assignment groups are calculated and automatically populated based on the location and assignment groups if there are more than one that can be serviced for a work order task. This is applicable only when:</p> <ul style="list-style-type: none"> ○ The <i>sn_fsm.update_potential_assignment_groups</i> system property is set to true. ○ More than one assignment group is found for the location. ○ Territory model is inactive.
<p>Assigned to</p>	<p>Individual agent, vendor, or crew to complete the task. This person is near to the task location and is part of the assignment group. By default, this field lists only the people who have the required skills, if defined. If no person has all the required skills, then the field lists all the members from the assignment group.</p> <p>If the assignment group is of type Vendor, then this field is automatically set the vendor manager of the vendor group. If there is no manager, then the field is empty.</p> <p>If the Needs crew option is selected, then this field name changes to Assigned crew.</p>
<p>Work Type</p>	<p>Type of work to be performed to complete the task. Choices are as follows:</p> <ul style="list-style-type: none"> ○ Break Fix ○ Install ○ Planned Maintenance

Field	Description
Agent efficiency criteria	<p>Choose an Agent Efficiency criteria from the list to apply for this work order task to accurately calculate the work duration for this task (manually). In case of automated scheduling methods like Dynamic Scheduling or Intelligent Task Recommendation, this field is automatically populated.</p> <p>This field appears only if Field Service Agent Efficiency plugin is activated and Agent Efficiency criteria is configured. For more info, see Create or modify Agent Efficiency criteria.</p>
Needs crew	<p>Option to indicate that a crew is required to complete the task. Selecting this option also changes the name of the Assigned to field to Assigned crew.</p> <p>This option appears only if the Field Service Crew Operations plugin is activated.</p>
Resource requirements	<p>Option to add resources with specific skills to work on the tasks.</p> <p>This option displays only when the Needs crew option is selected.</p>
Allow assignment override	<p>Option to show all the groups in the Assignment group field that belongs to the selected territory and dispatch group irrespective of the location, assets and skills for the task.</p>
Schedule lock	<p>Locks the task from getting scheduled by any scheduling mechanism. Tasks that are locked are excluded from automated scheduling mechanisms such as Schedule Optimization, Dynamic scheduling, Intelligent task recommendations. However, dispatchers can manually assign the task to agent.</p> <p>Schedule lock only honors valid tasks. If a task is missing required information, it will not be locked. To verify the status of your tasks and ensure they have all necessary details, check the Scheduling Health dashboard.</p> <p>Note: Work order tasks that are marked for Multi day, Needs crew, or Assigned/Accepted state in <code>sn_fsm.set_schedule_lock_by_state</code> property are locked automatically for all scheduling mechanisms.</p>
Potential territories for Schedule Optimization	<p>When selected, considers the task for Schedule Optimization. The Schedule Optimization engine determines and assigns the best territory for the task.</p> <p>Note: Appears only when the Schedule Optimization is activated.</p>
Assigned vendor	<p>Individual vendor who should complete the task, selected from the Assignment group. This field is available only when Vendor is selected from the Assignment group field.</p>
Vendor reference	<p>Reference number for tracking the selected vendor's work activities. This field is available only when Vendor is selected from the Assignment group field.</p>
Short Description	<p>Brief explanation of the task.</p>
Description	<p>Exact technical description of the work to be performed. Provide as much detail about the problem as possible to avoid extra communication with the customer in later stages of the work order life cycle.</p>

Field	Description
Work notes	Information about the task as it progresses through each state. Work notes are not visible to customers.
Additional comments (Customer visible)	Any additional information about the task as it progresses. Additional comments are visible to customers. Therefore update the details about the task as many times as necessary to correspond with the submitter of the task.
Check-In status	<p>When an agent clicks the Check-In button at their designated work location, the system will automatically populate the Check-In status as Geofence Validation Successful. This status confirms that the agent has successfully entered the specified geofenced area associated with their work location. However, if agents bypass the check-in option, an appropriate status populates in this field.</p> <p>Note: This option appears only when you add to the form.</p>
Planned	
Window start	Start of the time window that is established for this task.
Window end	End of the time window established for this task. The elapsed time of the window cannot exceed the value in the Estimated work duration field.
Scheduled travel start	Date and time when the agent expects to travel to the site. The travel start time is automatically set to one hour from the current time. If the task is in the Pending Dispatch state, you can edit this field.
Scheduled start	<p>Date and time when the work on the task is expected to begin.</p> <p>This field becomes mandatory from the Assigned state onwards.</p> <p>If you have enabled auto-assignment, the application auto-populates the Start scheduled field with the current date. Otherwise, you must enter the date manually.</p>
Estimated end	Date when the work on the task will end. The date is automatically calculated based on the Scheduled start and Estimated work duration .
Is fixed window	<p>Option to indicate that the service window is fixed. A fixed service window cannot be shortened, extended, or rescheduled to accommodate other tasks in an agent's daily schedule. If this option is not selected, the service window is considered flexible and it can be rescheduled.</p> <p>Note: A flexible task window can be rescheduled by optimizing task routes and auto-assignment, but a fixed window cannot. If a fixed window task does not fit into the agent's schedule, the task is not routed or dispatched.</p>
Assign across the schedule entries	<p>Option to schedule work order tasks spanning multiple schedule entries or days.</p> <p>This option appears only if the Field Service Multi-Day Task Scheduling plugin is activated.</p>
Access hours	Option to schedule work order tasks during the explicitly defined access hours.

Field	Description
	This option appears only if the Field Service Management Access Hours Management plugin is activated.
Acceptance duration	Task acceptance duration in number of days and time.
Acceptance due date	Due date for the acceptance. This field is calculated based on the task assigned time and Acceptance duration .
Estimated travel duration	Estimated travel time to the work site. The duration is updated when you assign the task to an agent, change the order in which the task is executed, or change the start date and time of the task. This field is automatically set to an hour. It is calculated based on the agent's location and schedule. The agent can also manually update it. If the task is in the Pending Dispatch state, you can edit this field.
Estimated onsite buffer duration	Dispatchers can project duration required for agents to reach the designated work site. Indicates the approximate amount of time it will take for agents to arrive at the work site from their current location.
Onsite arrival geofence radius	The radius of a virtual fence or perimeter around the work site location. Specifies the distance from the center of the work site location to the outer boundary of a virtual geofence. The geofence acts as a boundary within which agents are considered to have arrived at the work site. Once agents enter this radius, it indicates their physical presence at the designated location.
Onsite arrival geofence distance unit	The unit used to measure the distance between an agent's current location and the work site location within a geofence. Indicates the unit of measurement utilized to quantify the distance between an agent's current position and the work site location within the geofence. Units are measured in kilometers and miles. Note: The Onsite arrival geofence radius and Onsite arrival geofence distance unit fields in the work order task are automatically populated with default values based on the configuration set in the OnsiteGeofenceConfig extension point. For more information, see Extension points in Field Service Management .
Planned work duration	Expected amount of work time irrespective of the agent assigned to the work order task. The default duration is set to an hour. This field appears only if Field Service Agent Efficiency is activated. This field can be updated only if the work order task is not assigned.
Estimated work duration	Estimated amount of work time. The duration cannot exceed the total time of the window. This field is automatically set to an hour. If the task is in the Draft or Pending Dispatch states, you can edit this field. Note: If Field Service Agent Efficiency is activated, Estimated work duration is automatically calculated based on the Agent Efficiency.
Actual	

Field	Description
Actual travel start	Date and time when agent traveled to the site.
Actual travel duration	Amount of time spent traveling to the site.
Actual onsite arrival	The precise time at which an agent physically arrives at the designated work site.
Actual onsite arrival buffer duration	Automatically populates the duration of time an agent spends at the work site before commencing actual work. Represents the amount of time agents remains at the work site after their arrival but before they begin performing their assigned tasks.
Actual work start	Time when work began. This field is available only when the Actual travel start field is manually added, or when the Start Travel button is clicked.
Actual work end	Time when work on the task was completed.
Actual travel duration	Amount of time spent traveling to the site.
Actual duration	Total amount of time spent completing the task. This value is automatically calculated based on the Actual work start and Actual work end times.
Actual work duration	Total amount of time spent on the task after you start the work and before you close the work on the task. This amount excludes the time paused on the work.
Scheduling	
Scheduling preference	Preferred method by which work order tasks are prioritized during scheduling. The options available are: <ul style="list-style-type: none"> ○ Prioritize Rating ○ Prioritize ETA ○ Prioritize Nearest
Scheduling method	Scheduling method used to assign the work order task such as Schedule Optimization, intelligent task recommendation, dynamic scheduling, route optimization, or manual assignment.
Allow overtime	Authorizes additional work time that exceeds the regular working hours.
Optimization value	Value that is utilized to guide the Schedule Optimization engine in prioritizing a task for scheduling purposes. Higher numbers indicate higher priority.
Penalty due	Due date marking the commencement of penalties for Schedule Optimization on the engine. This date is automatically populated when there is an active Task SLA on the task. This date can be added or changed manually.
Penalty fixed cost	Total fixed penalty cost incurred after the penalty due date has passed.
Penalty per minute cost	Penalty cost incurred every minute after penalty due date has passed. The penalty due date must be entered. If the penalty due field is empty, the fixed cost will be used.

i Important: Value and penalty fields are used for Schedule Optimization

5. Click Submit.

The work order task is created.

Result

When a work order task is created, customers receive SMS and email notifications. If the task is in a territory and **sn_fsm.use_query_rules** is enabled, only linked agents, dispatchers, and qualifiers can see it. Access is based on entitlement, controlled by administrators through **sn_fsm.use_query_rules** system property.

Clone a work order task

Clone existing tasks to quickly create new tasks.

Before you begin

Role required: `wm_qualifier` or [qualifier combination role](#)

About this task

In the cloning process, the following information is copied from the source task:

- Parent work order reference
- Short description
- Description
- Dispatch group
- Assignment group
- Location
- Planned information (scheduled and estimated, no actuals)
- Required skills

Procedure

1. Open the task from the related list in a work order.
2. Select the **Clone Task** related

The screenshot shows the 'Work Order Task' record for WOT0008001. The 'Planned' tab is active, displaying scheduling information:

- Window start: 2023-08-06 12:49:00
- Window end: [empty]
- Scheduled travel start: [empty]
- Scheduled start: [empty]
- Estimated end: [empty]
- Is fixed window: [checkbox]
- Acceptance duration: Days 00 Hours 00 00 00
- Estimated travel duration: Days 00 Hours 00 00 00
- Estimated work duration: Days 0 Hours 04 00 00
- Estimated travel home time: Days 00 Hours 00 00 00

Below the scheduling fields are buttons for 'Update', 'Source', 'Qualified', and 'Cancel Task'. The 'Related Links' section includes a blue link for 'Clone Task' and a grey link for 'Suspend Parent'. A table of related records is visible at the bottom, with columns for Task SLA, Affected CIs, Part Requirements, Transfer Orders, Attached Knowledge, Asset Usages, Depends on, Dependents, Service Management Incidentals, and Service Order Task Contracts.

link.

This creates a new task in **Draft** state.

An entry in the **Work Notes** field contains the original task number and text stating that the task is a clone.

Delete a work order task

Work order tasks can be deleted by users with the `wm_admin` role.

Before you begin

Role required: `wm_admin`

About this task

A task cannot be deleted if it has a part requirement with a transfer order. To delete the task in this case, you must first delete the transfer order.

Procedure

1. Navigate to a work order.
2. In the **Work Order Tasks** related list, select the check box beside the task **Number**.
3. Select **Delete** from the **Actions** choice list.

Assign preferred agents to tasks

Identify the agents most preferred for working on a customer account and assign them to tasks.

Before you begin

Role required: `wm_dispatcher`, `wm_manager`, `wm_admin`

If you're using Technician Preferences for dynamic scheduling, then you must have the **Prioritize preferred and secondary technicians** criterion added to your task filter to add preferred technicians. For more information, see [Example - configure dynamic scheduling to assign preferred technicians to tasks](#).

If you're using Technician Preferences for Schedule Optimization then your administrator must [Configure the policy to assign preferred technicians to tasks](#).

About this task

The system copies account preferences from the 'wm_agent_assignment_preferences' table to the 'wm_task_tech_preference' table whenever the account field on a WOT is updated. If the task is already created and the account information is added later, the system also copies the data into the task preferences table from the account agent preferences if they are maintained.

Technician Preferences are used by dynamic scheduling, and Schedule Optimization. With dynamic scheduling, technician preferences are considered when you assign the task in Dispatcher Workspace, or when you auto-assign the task. With Schedule Optimization, the technician preferences are considered when the optimization engine auto-assigns tasks.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Order Tasks**.
2. Select the work order task that you want to add a preferred agent to.
3. Select the **Technician Preferences** tab.
4. Select **New**.
5. Add the agent details and set **Assignment Preference** to **Excluded Agent**.

Note:

Secondary indicates that the agent is the second option to assign a work order task to in case the preferred agent isn't available.

6. Select **Submit**.

7. Select **Update**.

Exclude Field Service agents from being assigned work order tasks

Exclude Field Service agents from being assigned work order tasks with dynamic scheduling, or Schedule Optimization.

Before you begin

Role required: wm_dispatcher, wm_manager, wm_admin

If you're using Technician Preferences for dynamic scheduling, then you must have the **Ignore Excluded Technician** criterion added to your task filter to add preferred technicians. For more information, see [Example - configure dynamic scheduling to ignore excluded technicians](#).

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Order Tasks**.
2. Select the work order task that you want to exclude an agent from being assigned to.
3. Select the **Technician Preferences** tab.
4. Select **New**.
5. Add the agent details and set **Assignment Preference** to **Excluded Agent**.
6. Select **Submit**.
7. Select **Update**.

Create dependencies between work order tasks

If a work order contains multiple tasks, you can create dependencies between the tasks that determine the order in which tasks are performed.

Before you begin

Role required: wm_qualifier or [qualifier combination role](#)

Activate the Field Service Task Dependency (com.snc.fsm_task_dependency) plugin to optionally define advanced task dependencies among work order tasks from different or same work order.

About this task

These dependencies set and enforce the order in which a single agent or multiple agents perform the tasks. For example, on a work order for a new server, one agent might install the server, the upstream task, and a different agent might configure the server after installation is complete, the downstream task.

You can specify multiple dependencies for a single task. The system prevents circular relationships where two tasks are dependent on each other by considering all upstream dependencies when deciding if a task can be auto-assigned.

This table explains the types of task relationships and dependencies that you can create.

Task dependency relationships

Dependency type	Description
Finish to start	<p>Indicates that the successor (downstream) task should be started after finishing its predecessor (upstream) task.</p> <p>This is the default dependency type between the tasks.</p>
Start after start	<p>Indicates that the successor (downstream) task must be started after starting its predecessor (upstream) task.</p> <p>Activate the Field Service Task Dependency (com.snc.fsm_task_dependency) plugin to define this relationship.</p>
Start together	<p>Indicates that the successor (downstream) and predecessor (downstream) tasks must be started together.</p> <p>Activate the Field Service Task Dependency (com.snc.fsm_task_dependency) plugin to define this relationship.</p>

Note:

Dependencies can be created only when the predecessor and successor tasks are not assigned.

Procedure

1. Navigate to a work order.
2. Open a work order task.
3. In the **Depends on** or Dependants related list, click **New**.
4. On the form, fill the fields.

Service Order Task Template Dependencies

Field	Description
Successor	Select a task whose start or end date is determined by its predecessor (upstream) task.
Dependency type	<p>Select a dependency relationship from the drop down list. The available options are:</p> <ul style="list-style-type: none"> <input type="radio"/> Finish to start <input type="radio"/> Start after start <input type="radio"/> Start together
Use max lag time	Select the check box to allow the maximum lag time between the tasks.

Field	Description
Predecessor	Select a task which determines the start or end time of its successor (downstream) task.
Maximum lag time	Enter the maximum delay or waiting time between tasks. Maximum lag time is the maximum delay allowed between the start of predecessor and its successor tasks.
Minimum lag time	Enter the minimum delay or waiting time between tasks. Minimum lag time is the minimum delay allowed between the start of predecessor and its successor task.

5. Click Submit.

Example: Server Installation and Configuration

Consider you have a work order for setting up a new server. There are three work order tasks involved: "Install Server", "Configure Server", and "Administer Server".

- **Install Server (Predecessor or Upstream Task):** This task involves physically installing the server hardware.
- **Configure Server (Successor or Downstream Task):** This task involves configuring the server software after the installation is complete.
- **Administer Server (Successor or Downstream Task):** This task involves monitoring the server after installation and configuration.

To set up dependencies:

- 1.** Open the work order.
- 2.** Navigate to the work order task related list.
- 3.** Select the "Configure Server" task.
- 4.** In the "Depends on" related list, click "New".
- 5.** Choose "Install Server" as the Predecessor task (upstream task).
- 6.** In the "Dependants" related list, click "New".
- 7.** Select "Administer Server" as the Successor task (downstream task).
- 8.** Select the dependency type.
- 9.** (Optional) Enter the maximum or minimum lag time.
- 10.** Click "Submit".

With this work order tasks dependency, the system requires the "Install Server" task to be completed before the "Configure Server" task can begin and start the "Administer Server" task after the configuration is complete.

Create task dependency using a work order template

In addition to creating work order task dependencies that are inherited from the associated work orders, you can also create work order templates that contain task dependencies.

Before you begin

Role required: `wm_qualifier` or [qualifier combination role](#)

About this task

Like work order tasks created from work orders, the dependencies inherited from the template enforce the order in which a single agent or multiple agents perform the tasks.

Procedure

1. Navigate to **All > Product Catalog > Templates > Work Order Template.**
2. Create a new work order template.
3. Create the work order tasks.
4. Open one of the tasks.
 - If other tasks are dependent on this task; that is, this task must be completed before other tasks can be completed, click **Dependents > New** and select the dependent tasks.
 - If this task is dependent on other tasks; that is, other tasks must be completed before this task can be completed, click **Depends on > New** and select the tasks to which this task is dependent.
5. Repeat this process for the remaining tasks.
6. When you have defined the dependencies for all tasks, click **Update.**

After the work order task dependencies are defined, you can select the template when [creating a new work order](#), and the tasks, along with the defined dependencies, will be inherited by the work order.

Create advanced task dependency using a work order template

You can create work order templates that contain advanced task dependencies.

Before you begin

Role required: `wm_qualifier` or [qualifier combination role](#)

Plugin required: Field Service Task Dependency (`com.snc.fsm_task_dependency`)

About this task

If a work order contains multiple tasks, you can create advanced dependencies that establish a relationship between the tasks to determine the order in which tasks are performed.

You can create dependencies among tasks of the same work order template.

This table explains the types of advanced task relationships and dependencies that you can create.

Advanced task dependency

Dependency type	Description
Finish to start	Indicates that the successor (downstream) task should be started after finishing its predecessor (upstream) task.

Advanced task dependency (continued)

Dependency type	Description
Start after start	Indicates that the successor (downstream) task must be started after starting its predecessor (upstream) task.
Start together	Indicates that the successor (downstream) and predecessor (downstream) tasks must be started together.

Procedure

1. Navigate to **All > Product Catalog > Templates > Work Order Template**.
2. Create a new work order template.
3. Navigate back to the list of work order templates.
4. Select the work order template you created.
5. In the **Service Order Task Template Dependencies** section, fill the form.

Service Order Task Template Dependencies

Field	Description
Successor	Select a task whose start or end date is determined by its predecessor (upstream) task.
Dependency type	Select a dependency relationship from the drop down list. The available options are: <ul style="list-style-type: none"> ○ Finish to start ○ Start after start ○ Start together
Use max lag time	Select the check box to allow the maximum lag time between the tasks.
Predecessor	Select a task which determines the start or end time of its successor (downstream) task.
Maximum lag time	Enter the maximum delay or waiting time between tasks. Maximum lag time is the maximum delay allowed between the start of predecessor and its successor tasks.
Minimum lag time	Enter the minimum delay or waiting time between tasks. Minimum lag time is the minimum delay allowed between the start of predecessor and its successor task.
Order model	This field displays the order model for the work order. This field can't be edited.

6. Repeat this process for the remaining tasks.
7. When you have defined the dependencies for all tasks, click **Submit**.

After the work order task dependencies are defined, you can select the template when [creating a new work order](#), and the tasks, along with the defined dependencies, will be inherited by the work order.


Create work order tasks in CSM Agent Workspace

Create work order tasks to track the work created for a work order.

Before you begin

Role required: `wm_qualifier` and `sn_customerservice_agent`, or `wm_qualifier` and `sn_customerservice.consumer_agent`

Procedure

1. Click the List icon ()
2. Navigate to **Work Orders > Created by me**
3. Select the work order for which you would like to create a work order task.
4. Do one of the following:
 - To create a work order task using a work order template, click the search icon in the **Template** field and select the template for this work order.
 - To create a work order task manually, click **New** and fill in the required fields.

For field descriptions, refer to [Create a work order task](#).

5. Click **Save**.

Related topics

[Qualify work order tasks in CSM Agent Workspace](#)

[Book work order appointment in the CSM Configurable Workspace](#)


Qualify work order tasks in CSM Agent Workspace

Qualify work order tasks associated with a work order to dispatch them to agents who can work on the task.

Before you begin

Role required: `wm_qualifier` and `sn_customerservice_agent`, or `wm_qualifier` and `sn_customerservice.consumer_agent`

Procedure

1. Click the List icon ()
2. Navigate to **Work Orders > Awaiting Qualification**
3. Select the work order that has the work order tasks you want to qualify.
4. To qualify a work order task:

- a. Select the work order task.
- b. In the **Dispatch group** field, click the search icon, and select a dispatch group.
- c. Click **Save**.
The work order task moves to **Pending Dispatch** state. When all work order tasks related a work order are qualified the work order moves to **Qualified** state. For more information on qualifying work order tasks, see [Qualify work order tasks](#)

Prioritize a work order task for Schedule Optimization

Add penalties and values to a work order task to define the importance of the task.

Before you begin

Role required: wm_dispatcher

An admin must [Configure the policy to enable dispatchers to prioritize work order tasks](#).

About this task

Optimization penalties and values are only used for Schedule Optimization.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Order Tasks**.
2. Select the work order task that you want to prioritize.
3. Select the **Scheduling** tab.
4. On the form, fill in the fields.
For a list of field descriptions on a work order task, see [Create a work order task](#).
5. Select **Update**.

Onsite arrival and check-in

The Onsite Arrival and Check-in process ensures accurate task location confirmation and effective time tracking.

Check-In purpose

Task Location and Prerequisites

- Informs when the agent arrives at the task location.
- Completion of prerequisites before initiating work.

Geofencing Validation

- Verifies agent location within the configured geofence radius.
- Check-In status stores the outcomes such as success, failure, or skipped scenarios. The following table outlines the outcomes based on different scenarios and geofence validations when an agent clicks the **Check-in** button. The status gets stored in the Check-in status field of the work order task table. For more information, see [Create a work order task](#)

Check-in scenario and status

Scenario	Check-In Status
Geofence validation successful after clicking check-in button on the mobile app	Geofence validation successful
Geofence validation failed after clicking check-in button on the mobile app	Geofence validation failed
Check-in skipped, geofence validation failed (agent starts work directly)	Check-in skipped. Geofence validation failed
Check-in skipped, geofence validation successful (agent starts work directly)	Check-in skipped. Geofence validation successful
Offline, geofence validation failed (agent clicks check-in button on the mobile app)	Offline. Geofence validation failed
Offline, check-in skipped, geofence validation failed (agent is offline and skips to click check-in button)	Offline. Check-in skipped, geofence validation failed
Check-in skipped on platform	Platform. Geofence validation skipped

Check-In procedure

Geofencing Process

- Triggered upon agent clicking the **Check-in** button.
- Captures latitude and longitude of an agent's current location.
- 'Check-In status' outcomes determine geofencing success or failure.

Time Tracking

- Captures time spent on the work site and task-related activities before starting work
- Duration saved in 'Actual Onsite Arrival Buffer Duration'.

Check-In button visibility

- Visible based on **Enable/Disable Onsite Arrival Check-in for Agents** property.

To enable the system property, navigate to **All > Field Service > Administration > Configuration**.

- Not mandatory; agents can skip and start work directly.

Example: Check-In and task execution during offline

1. Check-In process:

- Enable the system property **Enable/Disable Onsite Arrival Check-in for Agents** to use the Check-in process.
- Open the work order task record.
- Click **Start Travel** and then click the **Check-In** button when reached at the work location.
- Task state changes to **Onsite arrival**.
- System checks the agent's current latitude/longitude within the geofence boundary.

2. Offline mode:

- If the user is within the geofence but in offline mode, the system bypasses geofence check.
- Updates a flag with status: "Offline Mode. Geofence could not be validated" in the work order task table.
- Captures timestamp and updates the **Actual Onsite Arrival** field in the work order task.

3. Start work:

- After arriving at the job site, clicking **Start Work** under **Related Links**.
- The **Actual work start** field is automatically updated with the system time.
- Task state changes to **Work In Progress**.
- Automatic generation of the Task travel time card, stored under the **Time Worked** related list.

Example: Direct start work during offline

1. Direct Start Work: Open the work order task record and directly click **Start Work** under **Related Links**, skipping the **Check-In** action.

Enable the system property **Enable/Disable Onsite Arrival Check-in for Agents** to view the Check-in button although you choose to skip the check-in process.

2. Offline mode:

- If the user is within the geofence but in offline mode, the system bypasses geofence check.
- Updates the check-in status as "Offline Mode. Check-in skipped, and Geofence could not be validated" in the work order task table.
- Captures timestamp and updates the **Actual Onsite Arrival** field in the work order task. Applicable when the system property **Enable/Disable Onsite Arrival Check-in for Agents** is enabled.

3. Travel duration calculation: The **Actual travel duration** field is automatically populated with the time difference between "Actual travel start" and "Actual onsite arrival time," unless manually set.

4. Automatic generation of the Task travel time card, stored under the **Time Worked** related list.

Manage inventory in Field Service Management

Get the parts you need to complete the tasks.

If a field technician uses a part or performs a service while on the job, they can then enter the work into the Field Service Mobile app. Used products and performed services can be invoiced to customers based on the applicable price list or entitlement. Used products can be deducted from inventory levels either in the Field Service inventory management.

Qualifiers, dispatchers, and agents can create, source part requirements and requests. Dispatchers can create and manage transfer orders, and agents additionally can reserve, pick

and use parts. In addition to get the parts to complete the tasks, you can also perform the following actions:


- Transfer parts based on stock rules.
- Access the parts you have in your inventory
- Move parts to your inventory from available locations

Related topics

[Setting up inventory and asset management](#)

Part requirements

After all work order tasks are qualified and the parent work order state automatically changes to **Qualified**, you can request more information from the qualifier, if necessary, and source any parts required for the tasks.

If a work order was created from a [work order template](#), the part requirements are automatically added to the work order task. Part requirements can be used with any [Service Management application](#) .

To create part requirements and source parts, enable the **Part requirements are needed by agents** configuration option on the Field Service Configuration screen.

To automatically reserve the required parts in agent stockroom, enable the **Reserve parts in agent stockroom** configuration option on the Field Service Configuration screen.

Note:

The required parts must be available in the agent personal stockroom or group stockroom to reserve them for a work order task.

Create a part requirement

Create a part requirement for a work order task.

Before you begin

Role required: wm_admin, wm_agent, wm_dispatcher, wm_qualifier, or [qualifier combination role](#)

About this task

You can create a part requirement to request a part with or without the context of work order task.

Procedure

1. Access a list of work orders.
 - If you have the wm_admin role, navigate to **Field Service > Work Order > All Work Orders**.
 - If you have the wm_agent role, navigate to **Field Service > Agent > Assigned to Me**.
 - If you have the wm_dispatcher role, navigate to **Field Service > Dispatching > Dispatch Queue > .**
 - If you have the wm_qualifier role, navigate to **Field Service > Work Order > Awaiting Qualification > ..**
2. Open a work order.
3. Open a work order task that is in the **Awaiting Qualification, Qualified, Assigned, or Work in Progress** state.
4. Do one of the following.

Option	Description
Click Source.	All tasks and part requirements are listed on the left. Point to any task or part requirement icon to obtain more information. Right-click a work order task and select Create Part Requirement . This method is useful if you are sourcing multiple parts for a work order task.
In the Part Requirements related list, click New.	This method is useful if you are sourcing a single part for a work order task.

5. Fill in the fields, as appropriate.

Part Requirement form fields

Field	Description
Number	Auto-generated number for the part requirement.
Work order task	Number assigned to the work order task.
Model	Description of the part model <input checked="" type="checkbox"/> needed to complete the work order task.
Required by date	Date by which all parts should be delivered. The date is filled in automatically based on the task's expected travel start time. If necessary, change the date manually.
Required quantity	Total quantity necessary to complete the part requirement. This field becomes read-only when the full number of required parts has been sourced.
Reserved quantity	Total quantity that has been sourced already.
Sourced	Indicator for whether the required quantity for this part requirement has been reserved and transfer requested from one stockroom to another.
Delivered	Indicator for whether the transfer order lines under this part requirement have been delivered or not.
Short description	Contents of the Short description field from the parent work order. If the work order was created from an incident, problem, or change request, the short description of the part requirement is inherited from that record. If the work order was created automatically from a , the short description is from model template. This field is not visible by default.

6. Click **Submit**.

If the part is out of stock, a message appears at the top of the form naming the part.

7. If someone other than the qualifier will source the part requirement, [create transfer order lines](#), move the part from a stockroom to an agent, and click **Qualified**.

Note:

Part requirement record numbers start with an **SOPR** prefix and the records are stored in the [sm_part_requirement] table in the Service Order Management application. Part requirements created in prior releases start with an **WOPR** prefix.

Copy a part requirement

Copy a part requirement to quickly create another, similar part requirement.

Before you begin

Role required: `wm_agent`, `wm_qualifier`, `wm_dispatcher`, `wm_admin`, or [qualifier combination role](#)

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Orders**.
2. Open a work order.
3. Open a work order task that is not in **Closed** or **Cancelled** state.
4. Click **Source**.
5. In the Source Work Order list, right-click on a work order part number and select **Copy Part Requirement**.

This action copies the part requirement information to the clipboard.

6. In the Source Work Order list, right-click on a work order task number and select **Paste Part Requirement**.

Delete a part requirement

Delete a part requirement from a work order task.

Before you begin

Role required: `wm_qualifier` or [qualifier combination role](#)

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Orders**.
2. Open a work order.
3. Open a work order task that is not in **Closed** or **Cancelled** state.
4. Click **Source**.

The Source Work Order list appears, showing the part requirement records in a tree structure.

5. Right-click on a part requirement number and select **Delete Part Requirement** from the context menu.

The system deletes the part requirement without displaying a confirmation message.

Source parts

Sourcing a part is the process of reserving and obtaining an asset described in a part requirement record by transferring it from one stockroom to another.

Users who can create work orders can create part requirements by using [work order templates](#) or by manually using the procedures on this page. Agents, qualifiers, and dispatchers, including users with the combination roles, can create and source a part requirement.

- A qualifier determines if parts are necessary to execute work order tasks.
- A dispatcher sources the part requirements and creates transfer order lines.
- A dispatcher or agent moves the parts through the transfer process.
- An agent accepts delivery of the parts and records part usage.

Part requirements must be associated with a work order task. After parts are identified, a [transfer order](#) is created to move the parts from the stockroom where they are located to a different stockroom or directly to an agent. Agents can be selected based on skills and the availability of parts in their personal stockrooms. One work order task can have multiple part requirements and multiple transfer orders.

- In one work order task, multiple part requirements may require different items that can all be found in one stockroom. One transfer order can satisfy the part requirements. The transfer order will have multiple transfer order lines, each specifying a different item based on the part requirements.
- When one stockroom has all required items, a single transfer order line can fulfill the order when moving consumable assets. One or more transfer order lines may need to be created when moving non-consumable assets. (For more information about consumable and non-consumable assets, see [Asset and CI management](#) [↗](#).)
- If a single stockroom does not contain all the items needed for the part requirement, create an additional transfer order line to a different stockroom. Because the new transfer order line specifies a different stockroom, a separate transfer order is automatically created. One part requirement is then fulfilled by two separate transfer orders to two different stockrooms.

When a technician/agent is working on a task, and requires a part, they should be able to use the part from a personal stock room, when available, without going through the sourcing process.

With simplified part sourcing, when ever a task is assigned to an agent the part requests are automatically sourced from their preferred stockroom without going through the sourcing process. If any part is not available in the preferred stockroom then agents can manually source from the assignment groups or stockrooms.

Use assets

The technician can create a part requirement and use a part from their personal stockroom without going through the sourcing process. This is helpful for agents who are already working on tasks and have access to the necessary parts. To use this feature, click the [Use Asset](#) button on the Asset Usages related list on the Work Order Task form.

Advanced part sourcing

With advanced part sourcing, the technician can source multiple assets at once from a single or multiple stockrooms. For more information, see [Request multiple parts](#).

Related topics

[View asset usage](#)

Source a part and assign an agent

The work order sourcing option is useful when you want to assign a work order task to agents who already have the required parts in their stockroom or to a specific agent who needs you to obtain the parts for them.

Before you begin

Role required: `wm_agent`, `wm_qualifier`, `wm_dispatcher`, `wm_admin`, or [qualifier combination role](#)

About this task


The sourcing option shows the full list of tasks and part requirements to source for a work order or task. For each task, the agents and stockrooms that have the required parts are listed. Also, the skills and parts required for each task are displayed. Select an agent to see if the agent has the skills and parts required for the task. The time slots during which the agent is available within the work order window are shown to help you schedule task work efficiently.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Orders**.
2. Open a work order.
3. Open a work order task that is not in **Closed** or **Cancelled** state.
4. Click **Source**.
5. In the Source Work Order list, click a work order task.

The **Agent** field under **Agent info** is populated automatically based on information provided in the work order task.

6. To specify a different agent, click the Lookup using list icon ()

Only agents that meet the criteria in the work order task are available for selection. The system populates the **Skills** and **Parts** fields automatically, based on the agent specified. If a not available icon () appears next to a part, the specified agent either does not have the part or does not have enough units of the part to complete the task.

7. Point to the icon to obtain information about how many units of the part are needed and how many units the agent has in their stockroom.
8. To filter agents and reserve parts, click the arrow next to **Agent info** to expand the section.

- Select the skills and parts options to filter the agents.
- Select **Reserve parts in agent stockroom** to reserve parts located in the specified agent's stockroom. This automatically sources the parts already present.

9. In the **Date** field, select the date on which the work should take place.

If the agent is available on the date specified, the **Assign** button appears in the **Schedule** field.

10. If necessary, you can update the **Scheduled start** and **Scheduled end** fields in the **Task info** section.
 - If you change the **Scheduled start** and **Scheduled end** fields in the **Part Requirements** section at the top of the screen, the corresponding fields in **Task info** are also changed. If you make changes to the fields in the **Task info** section, the corresponding fields in the Part Requirements section are not changed.
 - Any edits to the **Estimated travel duration**, **Estimated work duration**, or **Scheduled start time** fields on the Task form appear automatically in **Task info**.

11. Click **Assign**.

12. To revert your changes to Agent Info, click **Refresh**.

You cannot use **Refresh** after you have saved the record.

13. Click **Save**.

The agent is not assigned until you save the record.

14. Source any parts the specified agent does not yet have reserved.
In the left pane, select a part from the list of part requirements under the task.

15. Click **Source Part** and complete the transfer order.

Source parts for work order tasks

Source parts from your preferred stockrooms or assignment groups to ensure work order tasks are completed promptly.

Before you begin

Role required: `wm_agent`, `wm_qualifier`, `wm_dispatcher`, `wm_admin`, or [qualifier combination role](#)

About this task

You can source parts for the work order task either manually or automatically.

- **Automatic process:** If the task is assigned to an agent who has the required parts in their preferred stockroom, the part requests are automatically sourced without any manual intervention.
- **Manual process:** In case any required part isn't available in the preferred stockroom, as an agent, you can manually source it from assignment groups or other stockrooms.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Orders Tasks**.
2. Open a work order task.

Note:

Open a work order task that is in **Assigned** state. When a task is assigned to an agent the part requests are automatically sourced from their preferred stockroom if it has the parts. If any part isn't available in the preferred stockroom, then agents can manually source from the assignment groups or stockrooms.

3. In the **Part Requirements** tab, you can view a list of required parts for the task.
4. To source parts manually, do the following:
 - a. Select the part requirement and select the parts that you want to source manually. The part requirement page displays all the relevant details.
 - b. Select **Source Part**.
 - c. Select the appropriate option based on the desired sourcing criteria.
 - d. Select **Submit**.
5. Select **Source Part** and complete the transfer order. The transfer order line is created.

What to do next

Complete the transfer orders: If the agent sources parts from other stockrooms or assignment groups, a transfer order line is created automatically. You can then complete the transfer order, ensuring the parts are moved to the designated location.

Pick up an asset

Agents can view a consolidated list, grouped by stockroom, of all their assets that are waiting to be picked up.

Before you begin

Role required: `wm_agent`

About this task

The agents can physically pick up the assets and then record them as delivered. The list contains transfer order lines in the Received or In Transit stage with a work order task that meets the following criteria:

- Assigned to the agent
- In the Accepted or Work in Progress state

Procedure

1. Navigate to **All > Field Service > Pick Up/Drop Off > My Pick Up List**.

The **Transfer Order Lines** list is displayed in **PickUpList** view.

2. **Optional:** Click text in any column to obtain more information about the transfer order, the transfer order line, or the asset.
3. After physically picking up the items, select a check box next to the transfer order column, then go to the **Actions** choice list and select **Deliver**.

Manage transfer orders

Use a transfer order to move necessary parts between company stockrooms or to a location where an agent can receive them.

The transfer order defines delivery dates, the stockrooms involved in the transfer, and the general status of the order. A transfer order contains one or more transfer order lines which allow the transfer of multiple parts or assets on one transfer order. A transfer order line describes the part, the quantity required, and the status of the part in the transfer process.

The system creates a transfer order automatically when you create a transfer order line. You can add additional transfer order lines to a transfer order as long as the transfer order is in the **Draft** stage. When any of the transfer order lines advance to the next stage, the transfer order stage also advances, and can no longer accept additional transfer order lines.

Consumable and non-consumable models

The transfer process is slightly different for consumables than it is for non-consumables.

Consumable assets, such as computer keyboards, are not tracked individually in transfer orders. Non-consumable assets, such as network routers, are configuration items that are tracked individually in transfer orders.

Consumable models

If the model being transferred is a consumable, the system can order all the items at once if you specify a **Requested quantity** on a single transfer order line. After the quantity is specified, the system determines whether the selected stockroom has enough quantity to fulfill the part requirement. If the stockroom cannot fill the entire part requirement, the system enters the quantity available in the stockroom automatically. For example, if the requirement is for 25 keyboards and the selected stockroom only contains 10, the available quantity of 10 is added. The user must create another transfer order line manually to order the remaining 15 keyboards from another stockroom.

Non-consumable models

If the model being transferred is a non-consumable asset, create one transfer order line per asset. The system creates as many transfer order lines as the required quantity. This approach is used so that each configuration item can change its status and stockroom location independently. For example, if the part requirement specifies two Canon i960 Photo printers, and printers are managed as configuration

items, then the system generates two transfer orders lines - one per configuration item. After the agent receives the part (item state changes to **In Stock** and substate changes to **Reserved**) and uses it, the asset is listed as **In Use** by the caller who originated the work order.

Create a transfer order

Create a transfer order that moves the necessary parts or assets to the correct stockroom or agent location.

Before you begin

Role required: `wm_agent`, `wm_qualifier`, `wm_dispatcher`, `wm_admin`, or [qualifier combination role](#)

Procedure



1. Navigate to **All > Field Service > Work Order > All Work Orders**.

2. Open a work order.

3. Open a work order task.

4. In the **Part Requirements** related list, click a **Number**.

5. Click **Source Part**.

The system completes the **Model** field automatically with information from the part requirement. You can select a different model, but it must be a [substitute](#)  for the requested model. If you click the reference lookup icon () beside the **Model** field, only the selected model and any substitute models that are in stock are listed.

6. Select a **From Stockroom**.

- Only stockrooms that have the model specified are included in the list. If no stockrooms are listed, the part is considered out of stock.
- The **From Stockroom** field is auto-populated with a default stockroom location, only if the part is available in the agent's personal stockroom or assignment group stockroom. You can specify a different stockroom location, if needed.

7. Select a **To stockroom**.

- The **To stockroom** field is auto-populated with a default stockroom location. You can specify a different stockroom location, if needed.
- To deliver the items to an agent directly and skip the **Received** stage, select a personal stockroom as the destination. If no agent is assigned to the work order task, the transfer order line waits in the **Received** stage until an agent has been assigned.
- To use a part without transferring it, select the same non-personal stockroom for both the source and destination stockroom. This action moves the transfer order directly to the **Received** stage and sets the asset state and substate to **In stock - Pending transfer**.

Note:

An error occurs if the same personal stockroom is selected for both the source and destination stockroom. In this case, the transfer order line automatically moves to the **Delivered** stage even if no agent is assigned to the work order task.

8. Specify the **Quantity requested**.

If the first stockroom you select does not contain sufficient quantity, then repeat steps 2-5 until the entire quantity required is ordered. As you order from stockrooms, the number in the **Reserved quantity** field is updated automatically. When the numbers in the **Reserved quantity** and **Requested quantity** fields on the Part Requirement form match, the system selects the

Sourced check box. After one transfer order line is requested from the part requirement, you cannot change the part requirement.

9. Select a **Delivery method**.

Qualifiers, dispatchers, agents and users with combined roles can specify a delivery method for parts while a transfer order is in the **Draft** stage. The possible delivery options are:

- **Standard**
- **Overnight**
- **Courier**
- **Agent Pickup**

10. Click **Submit**.

Move an asset through the transfer process


Use transfer order line tasks to move assets through the shipment or drop-off transfer process.

Before you begin

Role required: wm_agent, wm_qualifier, wm_dispatcher, wm_admin, or qualifier combination role

About this task

Transfer order line tasks are created to move transfer order lines from one stage to the other. A transfer order line initially has one transfer order line task for completing the fulfillment. When you fulfill a asset requirement and close the task, the system automatically creates two transfer order line tasks: one to prepare for shipment and another one to drop off the asset.

Closing a transfer order line completes the task, moves the transfer order line task to the next stage, and creates the next task in the process until you close all tasks required for completing the transfer order line. For more information on the stages of transfer, see [Transfer orders for Asset Management](#) .

Procedure

1. Navigate to **All > Field Service > Sourcing > Sourcing Transfer Orders**.
2. Select a transfer order to transfer the asset.
3. From the **Transfer Order Line** related list, select a transfer order line.
4. From the **Transfer Order Line Tasks** related list, select a transfer order line task that is ready for fulfillment.
Eligible tasks have the short description text "Ready for fulfillment" and the state Open.
5. Click **Close Task** to complete fulfillment and start the asset transfer process.
The transfer order line task that was ready for fulfillment moves to the Closed Complete state.

The system automatically creates two new transfer order line tasks:

- The short description text for the transfer order line task to prepare for shipment is "Prepare for shipment" and the state is Open.
- The short description text for the transfer order line task for drop off is "Receive" and the state is Open.

6. Drop off or prepare for shipment.


Merge transfer orders

After you submit a new transfer order, the system examines all existing transfer orders attached to the current work order task to determine if the new transfer order can be merged with any of the existing orders.

The system uses these criteria to merge transfer orders:

- Created from the Field Service Management application. (Configure the transfer order record to add the **Type** field.)
- In the **Draft** stage.
- Same **From Stockroom**.
- Same **Destination Stockroom**.

If an existing transfer order matches these criteria, the new transfer order line is placed under the existing transfer order. If no existing transfer order matches these criteria, a new transfer order is created and the transfer order line is added. It is good practice to view the transfer order and ensure that all information is correct. For example, check that the **Delivery by date** on the transfer order is appropriate for the **Required by date** on the part requirement. Transfer orders created in the Field Service Management application are not merged or combined with transfer orders created from any other application, such as Procurement.

When all the transfer order lines under a part requirement are delivered to the assigned agent's personal stockroom, the part requirement is marked **Delivered**. When both the consumable and non-consumable assets are delivered, the system changes their **State** to **In stock** and their **Substate** to **Reserved** (in [Asset Management](#) .

Review a task

As a reviewer, review the details of a work order task. If the details are sufficient, you can close the task. If more information is required, send the task back to the agent so they can add the requested details.

Before you begin

Role required: sn_fsm_quality.wm_quality_agent

Ensure that the Field Service Quality Management plugin is active. For more information, see [Activate Field Service Quality Management](#).

About this task

When an agent closes a task, the task will be sent to you for review. You can close the task if the details are sufficient, or you can send the task back to the agent requesting more details.

Procedure

1. Navigate to **All > Field Service > Reviewing > Quality reviews**.
2. Select a work order task.
3. Choose one of the following:
 - If the task details are sufficient, select **Close task**.
 - If more information is required, add what information is needed from the agent in the **Work notes** field. Then, select **Send back to agent**.

Result

If the task details are sufficient, the task is closed.

If more information was required, the task is sent back to the agent and the substate is set to Needs information. The agent will receive a notification that the selected work order task needs more information. In the Mobile Agent[®] application, the agent can update the work order task with the requested details and send the task back to the reviewer. For more information, see [Respond to a reviewed task](#).

Using rate types and labor rate cards

Use rate types and labor rate cards to define different cost rates for different activities recorded by field service agents.

Rate types

When multiple rate types are enabled for Field Service Management, agents can select active rate types when creating time worked entries. Active rate types can be selected in the **Rate Type** field on:

- Time worked records
- Time cards
- Labor rate cards
- The Worker Portal

The **Standard** rate type is the default value for the **Rate Type** field.

The time recording feature provides the following rate types:

- FSM Billable Overtime
- FSM Billable Standard

System administrators can create additional rate types by navigating to **Time Sheets > Administration > Rate Types** and clicking **New**.

Labor rate cards

The time recording feature provides the following labor rate cards:

- FSM Rate Card Task Work (Billable)
- FSM Rate Card Task Work OT (Billable)
- FSM Rate Card (Default)

System administrators can create additional labor rate cards using rate types. Navigate to **Cost > Costs > Labor Rate Cards** and click **New**.

Enable multiple rate types

To enable multiple rate types for Field Service Management:

1. Navigate to **Time Sheets > Administration > Time Sheet Policies**.
2. Click the desired time sheet policy. By default, the system uses the **Default time sheet policy**.
3. Enable the **Allow multiple rate types** field.
4. Select a **Default rate type**. The default value for this field is the **Standard** rate type.
5. Enable the **Auto create time card on planned task update** field.
6. Enable the **Auto fill time card with time worked entries** field.
7. Click **Update**.

Assign a knowledge article to a work order or work order task

Add additional information to complete tasks.

Before you begin

To enable the search and to attach articles on the form, the system administrator must do the following:

- Configure the work order and work order task forms to display the **Related Search Results** section on the forms.
- In the `glide.knowman.attach.fields` property, add `work_notes` to the **Value** field. This enables the attaching of articles to the work notes.

Role required: `wm_initiator`, `wm_qualifier`, `wm_agent`, `wm_manager`, `wm_dispatcher`, or `admin`

About this task

As you enter a short description for a work order or work order task, a list of relevant knowledge articles is displayed that you can associate with the work order or work order task.

Procedure

1. Navigate to a work order or a work order task form.
2. Click **Related Search Results**.
A list of articles that match the text entered in the **Short Description** field are displayed.
3. To preview, click the article.
4. To attach an article,
 - To attach the article you're previewing, click **Attach to Work Order**.
 - To attach an article without previewing it, click **Attach** next to it in the list of suggested articles.
5. Click **Update**.

Result

The articles are added and appear under the **Attached Articles** tab.

Related topics

[Knowledge properties](#) 

Review and approve time sheets

Managers can review time cards and time sheets for agents in their assignment groups.

Before you begin

Role required: `wm_manager`

Procedure

1. Navigate to **All > Field Service > Manager > Time Sheets - Pending Approval**.
2. Select a time sheet.
3. If necessary, review the time cards associated with this time sheet in the **Time Cards** related list.
4. Click one of the following.
If rate cards are applicable for the time worked, expense lines are generated as part of the time sheets. Users with the `financial_mgmt_user` role can view these expense lines.

Assign ad-hoc Service Locations

The Field Service with Service Locations feature enables you to add and verify service locations on demand.

Field Service with Service Locations simplifies the process of adding locations in a work order or work order task. It enables administrators to add locations on demand that are not included in provided predefined locations. Administrators must set one of the following validation configuration options as the default to create ad hoc service locations:

- Using map: Ability to add a location using the Google map interface.
- Without map: Ability to add location details without a map and have them validated using the *global.ServiceLocationAddressValidationExtPoint* API.
- No validation: Entered location details will not be validated.

For more information, see [Set the default validation option for service locations](#).

Related topics

[Configuring Field Service with Service Locations](#)

[Activate Field Service with Service Locations Support](#)

[Mapping a service location to a parent location](#)

[Set the default validation option for service locations](#)

[Add Service Locations functionality to a work order catalog item in the Customer Service Portal](#)

[Set the limit of maximum service locations added per day](#)

[Set the default location on a map](#)

[Setting ad-hoc locations in work orders and work order tasks](#)

Setting ad-hoc locations in work orders and work order tasks

The Field Service with Service Locations feature adds options to provide an ad-hoc location when creating a work order or work order task on ServiceNow AI Platform, Agent Workspace, or Customer Service Portal.

If you don't want to use the auto-populated location in the **Location** field when creating a work order or work order task, you can add an ad-hoc location. The default validation option for service locations determines whether you can use the Google map (Using map) or enter the address manually (Without map or No validation). For more information, see [Set the default validation option for service locations](#).

Methods to add ad-hoc location in work order or work order task

Method	Action
Google map	<p>The address information is entered in the text field or by dragging and dropping the marker. The fields auto-populate based on the address entered in the search field on a map.</p> <p>The Google Maps API key or client ID must be set to use the Google Maps API for Business. For more information, see Set up Google Maps API.</p>

Methods to add ad-hoc location in work order or work order task (continued)

Method	Action
Without Google map	<p>The address information is entered in the required fields. The Latitude and Longitude fields are grayed out and can't be edited when the default validation option has been set to Without map.</p> <p>Note: If the default service location validation option has been set to Without map, the address is validated using the <i>global.ServiceLocationAddressValidationE</i>. If the option has been set to No validation, the address won't be validated.</p>

Manage workforce

Oversee agent schedules, manage resources, optimize territory coverage, and handle crew tasks and assignments to ensure efficient and effective coverage.

Managing territories and agents from Territory Planning console

Use the Territory Planning Console to assign work orders or work order tasks to agents or crews in the territories that best match their location based on conditions that you set.

Territory Planning Console

The territory map in the Territory Planning Console provides a visual representation of a territory so you can easily see the location of the agents and crews assigned to the territory and also assign the work order tasks.

The personas with the role `sn_fsm_tp.fsm_territory_read` will only have the view access to Territory Planning console.

Note:

To identify the best matched territory for a work order task, you must enable the *Field_Service_Territories* territory model. For more information, see [Enable the Field Service territory model](#).

The following table describes the list of activities you can perform as a territory planner, territory manager, and resource manager in the territory Planning console.

Actions performed in Territory Planning Console

Action	Territory Planner	Territory Manager
View, manage, and analyze territories and their associated resources.	View territories under All Territories, My Territories, and My Selections categories.	View territories under My Territories and My Selections categories.

Actions performed in Territory Planning Console (continued)

Action	Territory Planner	Territory Manager
Add or customize data overlays to visualize more data points in the territory.	For all territories	Only for assigned territory
View detailed information such as the number of agents, crews, and child territories by clicking the territory geography.	For all territories	Only for assigned territory
Edit and stretch boundaries to include new data points.	For all territories	Only for assigned territory
Assign direct agent or crew memberships without assignment groups.	For all territories	Only for assigned territory
Hide all territory geographies in the map.	For all territories	Only for assigned territory
Specify the color code using color picker for a territory.	For all territories	Only for assigned territory
Add child territories i Note: The child territory icon appears only when the territory has child territories.	For all territories	Only for assigned territory
Add child territories to My Selection list.	For all territories	Only for assigned territory

Working with territories

Perform the following tasks to work with territories:

- [Create a work order task](#)
- [Assign work order tasks to agents or crews from the dispatch queue](#)
- [Auto-dispatch a work order task](#)
- [Assign work order tasks to agents](#)
- [Assign work order tasks to crews on Dispatcher Workspace](#)

Related topics

[Configuring Field Service Territory Planning](#)

View favorite territories on a map

View and manage territories and their associated resource details in the list view and on a map.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_read

About this task

Move a territory to the My Selection list to be able to view it on a map.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. In the All Territories list, select a territory that you want to mark as favorite.
3. Select the Favourite (☆) icon.

Result

The selected territory is moved to the My Selections list and displays on a map when selected.

View territory information in contextual side panel

The contextual side panel offers valuable insights and easy access to territory information, helping you make well-informed decisions and efficiently manage your territories.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager, sn_fsm_tp.fsm_territory_read

About this task

The contextual side panel provides comprehensive details about territories, markers, shapes, and heatmaps. Administrators can configure the displayed fields to show precisely the information needed. For more information, see [Configure territory fields to appear in Territory Planning console](#).

In the contextual side panel:

- Clicking on a map marker icon representing a single data item displays the specific details of that data item.
- Clicking on a co-located marker icon representing multiple data items, lists all the associated data items in the contextual side panel. To view specific details for each record, select the individual items.
- Use the condition builder to further filter the data items. For example, add a condition to display only active work order tasks.

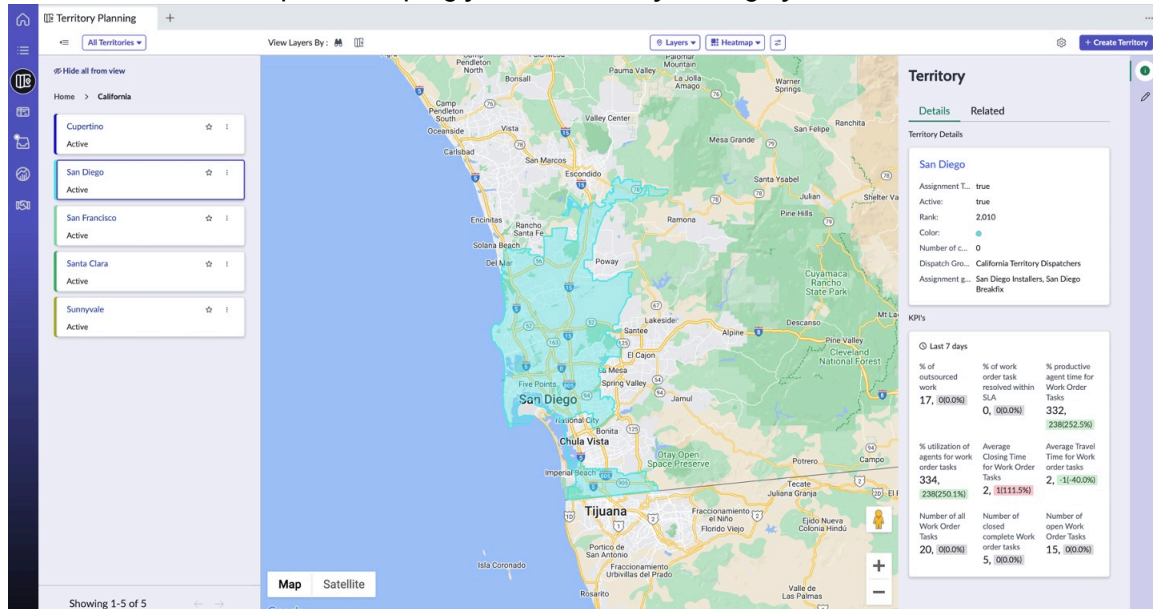
Territory Key Performance Indicators (KPIs) offer valuable insights into the performance of territories. The contextual side panel displays the KPIs for the territory. When your administrator activates the Performance Analytics - Content Pack - Field Service Management plugin. The KPIs configured in the `TerritoryIndicators (sn_fsm_tp.TerritoryIndicators)` extension point appear in the contextual side panel.

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. In the Territories panel, select the territory you want to view.
3. View details in the contextual side panel.

Result

The following snapshot illustrates how you can view relevant territory information and its KPIs in the contextual side panel, helping you to efficiently manage your territories and resources.



Change map marker location in the Territory Planning console

Update the location of your map markers for a dynamic and accurate visual representation of your data entities on the map.

Before you begin

Role required: `sn_fsm_tp.fsm_territory_planner`, `sn_fsm_tp.fsm_territory_manager`

About this task

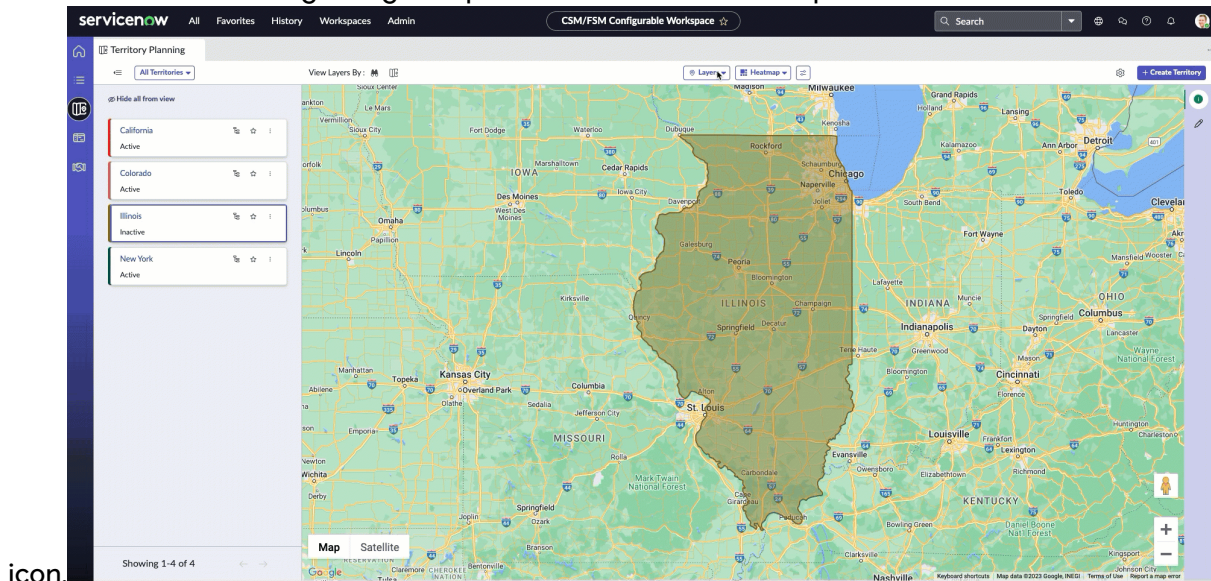
You can move the map marker icons from the current location to the new location only when the `Enable location change on map field` is selected and a valid `Script` is provided while creating the marker layer overlays. For more information, see [Create a marker layer overlay](#).

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. Edit location for marker overlay data items.
As you drag and drop the map markers to the new location, the system populates the address details automatically in the **New Location** field for the data items.
3. Select **Update**.

Result

The following snapshots illustrate the process of changing data item locations when selecting a single map marker or a co-located map marker



Change start and end locations for agents

Change the start-of-day and end-of-day locations for your agents, offering the flexibility needed for specific work order tasks.

Before you begin

Role required: sn_fsm_tp.fsm_territory_planner, sn_fsm_tp.fsm_territory_manager, wm_admin

About this task

Ensure the Territory Planning plugin is activated. For more information, see [Activate Field Service Territory Planning](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Agents**.
2. Select the user for whom you want to add or change the start and end locations.
3. Select the **Agent Schedule Attribute Plans** related list.

i Note:

You can switch the agent's user profile view to **FSM Profile** or add the **Agent Schedule Attribute Plans** related list to the form if it doesn't appear by default.

4. Select any existing field or select **New**.
The **Agent Schedule Attribute Plan** form shows.
5. In the **From** field, select the start date.
6. In the **To** field, select the end date.
7. In the **Start location** field, select the location where an agent starts work.
8. In the **End location** field, select the location where an agent ends work.
9. Select **Submit**.
The Agent Schedule Attribute Plans table is updated with agent's start and end locations.

Result

The scheduling mechanisms consider an agent's start and end locations from the `Agent Schedule Attribute Plans` table for the given day.

Move agents between territories in the Territory Planning console

Relocate agents between territories to add flexibility to their work.

Before you begin

Role required: `sn_fsm_tp.fsm_territory_planner`, `sn_fsm_tp.fsm_territory_manager`


About this task

- Using the agent relocation process, you can customize agent membership attributes and availability. This includes changing the start-of-day and end-of-day locations for your agents, offering the flexibility needed for specific work order tasks.
- By matching resource availability and addressing unscheduled work for agents, schedule planning is significantly improved.
- When agents are relocated to another territory, any tasks assigned to them in the source territory are unassigned by default. You can also choose to alter the behaviour using `UnassignTaskOnAgentRelocation` extension point.

This video shows the agent relocation process.

https://player.vimeo.com/video/985862042?h=cdd3151675&badge=0&autoplay=0&player_id=0&app_id=58479

Procedure

1. Navigate to **All > Field Service > Territory Planning > Territory Planning Console**.
2. Select the territory and open the record.
3. Select the Agent Relocation () icon.
The **Relocate agents** form appears in the contextual side panel.
4. Choose the start date and time for the agent relocation.
5. Choose the end date and time for the agent relocation.
6. In the **Available agents** field, select the agents you want to relocate.
If the agent has assigned tasks or is part of a crew, you see an inline message. You can then choose to proceed with the relocation or select other agents.
7. **Optional:** Customize agent membership and availability in the source territory during the relocation period.
 - a. Select the **Set as Inactive Agents** option to set agents as inactive.
 - b. Select the **Set as Secondary Agents** option to designate agents as secondary agents.
- Note:**
If not selected, agents remain active and retain primary membership.
8. In the **Destination territory** field, select the destination territory to which the selected agents are relocated.
9. **Optional:** Customize agent membership and availability in the destination territory during the relocation period.

- a. Select the **Set as Primary Agents** option to set agents as primary agents.

Note:

If not selected, agents default to secondary members.

- b. Select the **Set new agent location** option to define the new location for agents.

10. Optional: Set the new location in the destination territory for the agents.

- a. In the **Select start location** field, select the location where the agents start work in the destination territory.
- b. In the **Select end location** field, select the location where the agents end work in the destination territory.

11. Select Relocate.

A confirmation message appears to indicate the agents have been successfully relocated to the destination territory. Any existing assigned tasks for the agents in the source territory are unassigned and transitioned to **Pending Dispatch** state.

Result

- Agent memberships are updated for the specified source and destination territories based on the form selections.
- Agent schedule attribute plans related list in the agent's user profile is updated.

Agent availability and calendars

Agent availability and calendars help manage workforce schedules by tracking working hours, breaks, and time off. These tools ensure efficient task assignments and enhance productivity. Managers and agents can update availability, supporting better scheduling decisions.

Create a work schedule for agents

Users with the agent schedule administrator role can create one or more work schedules for a customer service agent or a field service technician.

Before you begin

Role required: agent_schedule_manager, agent_schedule_admin

About this task

A work schedule includes a date range and a schedule type, such as day shift or evening shift. Agents and technicians can have multiple work schedules.

Procedure

1. Navigate to **All > Agent Schedule > Work Schedule**.
2. Click **New**.
3. Fill in the fields on the Agent Work Schedule form, as necessary.

Agent Work Schedule form

Field	Description
From Date	The first day of the work schedule.
To Date	The last day of the work schedule.

Field	Description
User	The selected agent or technician.
Work Schedule	The selected schedule from the Schedules list.
Type	<p>The type of work that the agent or technician is performing during this schedule:</p> <ul style="list-style-type: none"> ○ Primary work ○ Other <p>An agent can have only one primary schedule for a specific range of dates. Primary schedules cannot overlap.</p>

4. Click **Submit.**

Create a schedule to use with the agent calendar

Users with the agent calendar administrator role can create a schedule to use with the agent calendar.

Before you begin

Role required: agent_schedule_admin

About this task

Creating a schedule for the agent calendar uses the schedule feature. For more information, see [Schedules](#).

Schedules are configured with two types of records.

- Schedule records specify a time zone and a type of schedule and use one or more schedule entries. Schedule records are saved in the Schedule [cmn_schedule] table.
- Schedule entry records specify the time periods that are included or excluded from a schedule. Schedule entries are saved in the Schedule Entry [cmn_schedule_span] table.

For more information on schedule fields, see [Schedule fields](#).

Procedure

1. Navigate to **All > Agent Schedule > Schedule**.
2. Click **New**.
3. Complete the fields on the Schedule form.

Schedule form fields and descriptions

Field	Description
Name	Enter a unique name for the schedule.
Time Zone	Select the time zone for the schedule. If you select Floating , the time zone will be relative to whatever is accessing the item at any given time.
Parent	Select a parent schedule to constrain the new schedule.
Type	Enter a label that describes the purpose of the schedule. You can also use one of these system terms to determine how to process certain schedules:

Field	Description
	<ul style="list-style-type: none"> ○ excluded: excludes time periods from SLA counts. ○ maintenance: specifies time periods where change management activities are allowed. A schedule containing maintenance schedule entries cannot also contain blackout schedule entries. ○ blackout: excludes time periods from change management schedules. A schedule containing blackout schedule entries cannot also contain maintenance schedule entries.
Description	[Optional] Describe the schedule.

Note:

The Schedule form displays a warning message if there are no active entries defined for the current schedule. If your schedule is a child schedule that only contains exclusions, ignore the message because exclusions are non-active entries.

4. Right-click the header bar and click **Save**.

Note:

If you create a schedule of type **maintenance** and save the record, a UI policy hides the **Type** field from the form. To view or change the value for the **Type** field, view the list of schedules rather than the schedule form and add the **Type** column if necessary. You can double-click the cell for the value in the **Type** column and modify from the list view.

5. Configure one or more schedule entries.

6. Click **Submit**.

Run the Populate Agents Daily Schedule Table

Trigger the Populate Agents Daily Schedule Table to run so dispatchers can see the changes that they made without having to wait for the nightly execution.

Before you begin

Role required: admin

About this task

By default the Populate Agents Daily Schedule Table runs once a day at midnight in the time zone the instance is set up in. If a dispatcher changes an agent’s schedule, it won’t reflect in the calendar in Dispatcher Workspace until the Populate Agents Daily Schedule Table runs. Administrators can trigger the table to run at any time.

Procedure

1. Navigate to **All > System definition > Scheduled jobs**.
2. Under Name, search for **Populate agents daily schedule**.
3. Select **Populate agents daily schedule**.
4. Select **Execute Now**.
The Populate agents daily schedule starts running and should be complete within 30 minutes.

Related topics

- [Change the number of days that dispatchers can hide off shift agents](#)
- [Show or hide off shift agents from the calendar in Dispatcher Workspace](#)

Use Emergency Exposure Management for Field Service agent monitoring and assignments

Monitor the spread of infectious diseases by using Emergency Exposure Management to identify affected agents. You can also find agents and customers who might have been potentially exposed. You can view the compliance reports of agents and tasks.

View an Emergency Exposure Management diagnostic report for an affected agent

View the diagnostic report to identify affected agents and potentially affected customers and agents.

Before you begin

Role required: wm_manager

About this task

As the Field Service manager of an affected agent, you can view the diagnostic report of the affected agent to identify potentially affected agents and customers.

Procedure

1. Navigate to **All > Field Service > Manager > Diagnostic Reports.**
2. In the Diagnostics Request form, click the number of the diagnostic request for which you want to view the report.
3. View a list of impacted customers or impacted field agents.
 - To view the list of impacted customers, click the **Impacted customers** tab.
 - To view the list of impacted agents who potentially came in contact with the affected agent or visited the same customer location within the selected time period, click the **Impacted field agents** tab.


Block the calendar of a field agent based on an Emergency Exposure Management diagnostic report

Block the calendar of affected and potentially affected agents based on an Emergency Exposure Management diagnostic report.

Before you begin

Role required: wm_manager

About this task

As the Field Service manager, you can view a diagnostic report and take appropriate action to mitigate the spread of infection. You can promote agent safety by blocking the availability of the affected and potentially exposed agents for future dates on the calendar. For more information about the agent calendar, see [Configure the agent calendar](#) .

Procedure

1. Navigate to **All > Field Service > Manager > Diagnostic Reports.**
2. In the Diagnostics Request form, click the number of the diagnostic request.
3. Click **Block Agent Calendar** to block the affected agent's calendar.
4. On the Schedule Entry new record form, fill in the fields.

Schedule Entry

Field	Description
User	Name of the agent.

Field	Description
Name	Descriptive name for the event.
Type	<p>Type of event scheduled for the agent.</p> <p>Note: The event type configurations are inactive by default. For information about activating them, see Create an event configuration for the agent calendar.</p> <p>The event types are:</p> <ul style="list-style-type: none"> ○ Time off: Personal or work-related event ○ Appointment: Appointment for a service ○ Meeting: Work-related meeting ○ Phone call: Work-related phone call ○ Excluded: User is not available for task assignments ○ On call: Event created while on call with user ○ Time off- in approval: Approved personal or work-related event ○ Time off- rejected: Rejected personal or work-related event
When	Start date and time of the personal event.
To	End date and time of the personal event.
All day	Option for indicating that the event lasts all day.
Notes	Enter notes for the event, if any.

5. Click **Submit**.

6. If there are potentially affected agents, block their calendars by doing the following:

- a. Click the **Impacted field agents** tab.
- b. In the Field Service Impacted Users list, click the diagnostic request number.
- c. Repeat steps 3 through 5 to block the calendar of a potentially affected agent for future dates.

Managing agent skills, schedules and tasks in Field Service Agent Management

Field Service managers can view and manage the skills, schedules, and work order tasks of agents in their assignment group.

The **Field Service > Manager** module provides the following capabilities for users with the `wm_manager` role.

Module	Description
My Team	Provides a list of agents in the manager's assignment groups.

Module	Description
Manage Skills	<p>Provides a list of the current skills and the agents in the manager's assignment groups. Managers can create or edit skills, assign skills to agents, and view agents with a specific skill.</p> <p>Note: In the Customer Service Management application, users with the sn_customerservice_manager role can also access the Manage Skills module.</p>
Work Order Task	Lists work order tasks that are open and assigned to the manager's agents and groups.
Recent Work Order Tasks	Lists work order tasks that were created for the manager's agents and groups within the last 30 days. This list includes open and closed work order tasks.
Time Sheets - Pending Approval	Lists the time sheets for the agents in the manager's assignment group that need manager approval.

Use the agent calendar

Users with the agent calendar user role can add events to their personal calendar and configure the calendar to show or hide different types of events.

Related topics

[Configuring an agent calendar](#)

[Managing agent calendar](#)

Add an event to the agent calendar

Users with the agent schedule user role can add events to their personal calendar.

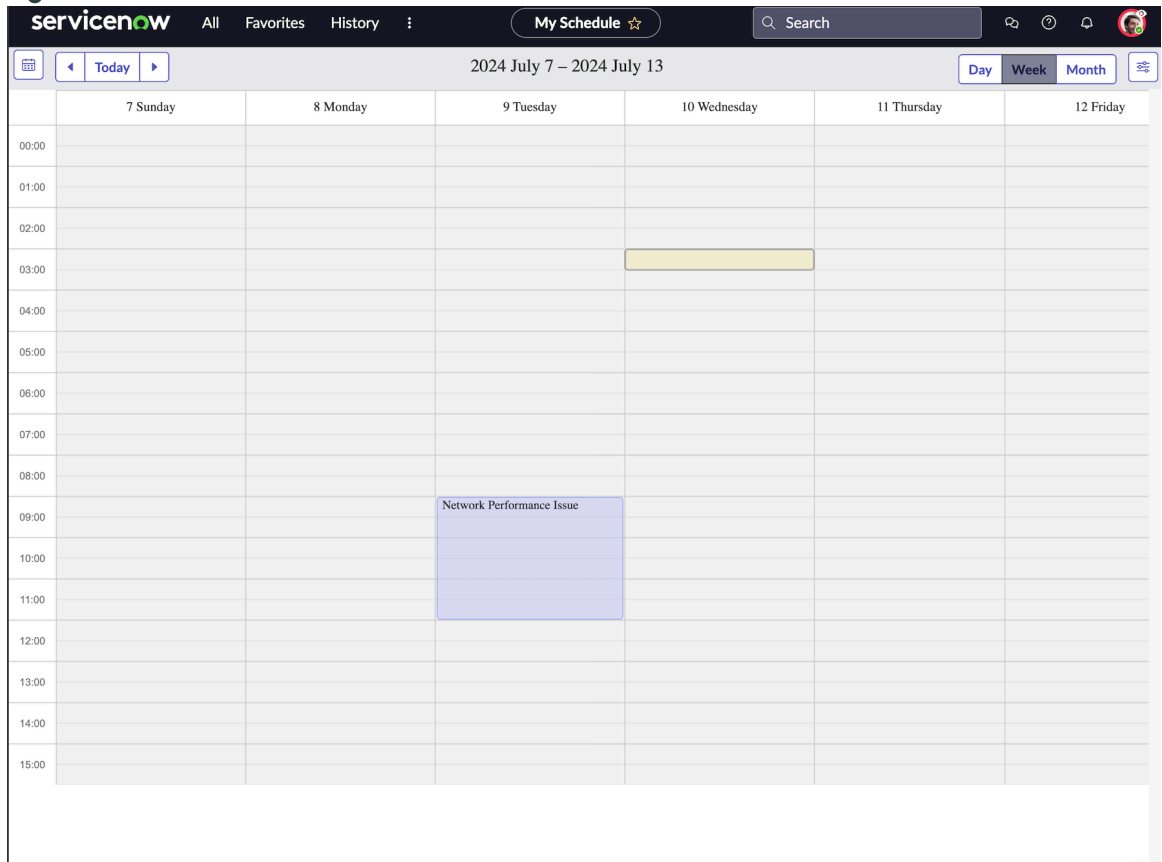
Before you begin

Role required: agent_schedule_user

Procedure

- Navigate to your calendar.
 - Customer Service > My Schedule**
 - Field Service > Agent > My Schedule**
- Double-click a timeslot or click and drag over a timeslot on the calendar to open the New Event form.

Agent schedule



3. Fill in the fields on the New Event form, as necessary.

New Event form fields and descriptions

Field	Description
Name	The name of the event.
Type	The type of event: <ul style="list-style-type: none"> <input type="radio"/> Time off <input type="radio"/> Appointment <input type="radio"/> Meeting <input type="radio"/> Phone call <input type="radio"/> Excluded <input type="radio"/> On call <input type="radio"/> Time off - in approval <input type="radio"/> Time off - rejected
Show as	Show this event on the agent's personal calendar as one of the following: <ul style="list-style-type: none"> <input type="radio"/> Busy <input type="radio"/> Free <input type="radio"/> Tentative <input type="radio"/> On call

Field	Description
	Select Busy to exclude the block of time from agent availability calculations for the auto assignment and the case assignment workbench.
When	The start date and time of the personal event.
To	The end date and time of the personal event.
All day	Enable this check box if the event lasts all day.
Time zone	[Read only] If an agent has selected a specific time zone in their user profile, that time zone is displayed here and is used as the time zone for this event. Subsequent changes to the Time zone field in the user profile do not change the time zone designation for this event.
Repeats	Create a repeating event by selecting the frequency. Depending on the selection, other fields are required to complete the frequency information. <ul style="list-style-type: none"> ○ Does not repeat ○ Daily ○ Every Weekday (Mon-Fri) ○ Every Weekend (Sat, Sun) ○ Every Mon, Wed, Fri ○ Every Tue, Thu ○ Weekly ○ Monthly ○ Yearly
Repeat every	Enter a number for the frequency of the repeated event.
Repeat on	For weekly events, select a day of the week.
Monthly type	For monthly events, select one of the following. These selections use the day and date in the When field as the basis for repetition. <ul style="list-style-type: none"> ○ Day of the month ○ Day of the week ○ Last day of the month ○ Last week of the month
Yearly type	For monthly events, select one of the following: <ul style="list-style-type: none"> ○ Day of the year: this selection uses the day and date in the When field as the basis for repetition. ○ Floating: for this selection, complete the Float week, Float day, and Float month fields.
Repeat until	Select a date for the end of the repeated event.
Float week	For a floating yearly repeating event, select the week.

Field	Description
Float day	For a floating yearly repeating event, select the day.
Float month	For a floating yearly repeating event, select the month.

4. Click **Submit.**

The new event appears on the agent calendar and also in the **Schedule Entries** related list on the Agent Personal Schedule form.

Move an event on the agent calendar

Users with the agent schedule user role can move events on their personal calendar.

Before you begin

Role required: agent_schedule_user

Procedure

- Navigate to your calendar.
 - Customer Service > My Schedule**
 - Field Service > Agent > My Schedule**
- Use one of the following methods to move an event.

Option	Description
Click an event and drag it to a new day or time	The When and To fields in the event record are updated with the new information.
Double-click an event to open the event record	Change the date and time information in the When and To fields and click Submit . The event appears on the calendar in the new location.


Show or hide event types on the agent calendar

Users with the agent schedule user role can personalize their calendar and show or hide different types of events.


Before you begin

Role required: agent_schedule_user

Procedure

- Navigate to your calendar.
 - Customer Service > My Schedule**
 - Field Service > Agent > My Schedule**
- Click the configuration icon () in the calendar header to display the Schedule Configuration menu.
- Enable or disable the switches for the different types of events.

An option is enabled when the switch is moved to the right and appears with a green background.

4. Click the configuration icon () again to hide the Schedule Configuration menu. The calendar displays the enabled task types.


Managing agent calendar

Customer service agents and field service technicians can use the agent calendar to see work schedules and assignments and also add personal events such as meetings or appointments.

The agent calendar provides a tool for maintaining different work schedules or shifts and assigning agents and technicians to shifts for specific time periods. The calendar has the flexibility to accommodate work schedules that are fixed or varied and shifts that rotate by week, month, or other patterns. The agent calendar administrator creates the calendar configuration, including a schedule configuration for each calendar user and the types of tasks to display on the calendar.

The schedule information stored in the agent calendar is used by other ServiceNow applications and features, such as the assignment workbench, central dispatch, and auto assignment. The assignment workbench uses agent availability, based on upcoming work schedules and personal time off, when evaluating predefined criteria and recommending agents for case assignment. Auto assignment in Service Management core applications, such as Field Service Management and Facilities Service Management, evaluate agent work schedules before assigning tasks.

The agent calendar administrator has access to the Agent Schedule menu in the application navigator. This menu includes the following modules:

- **Event Configuration:** create a configuration for each type of event or task displayed on the agent calendar.
- **Work Schedule:** create one or more work schedules for each calendar user.
- **Agent Personal Events:** create personal schedules for each agent and add events to those schedules.
- **Schedule:** create or modify schedules. For more information, see [Schedules](#) .

Viewing the calendar

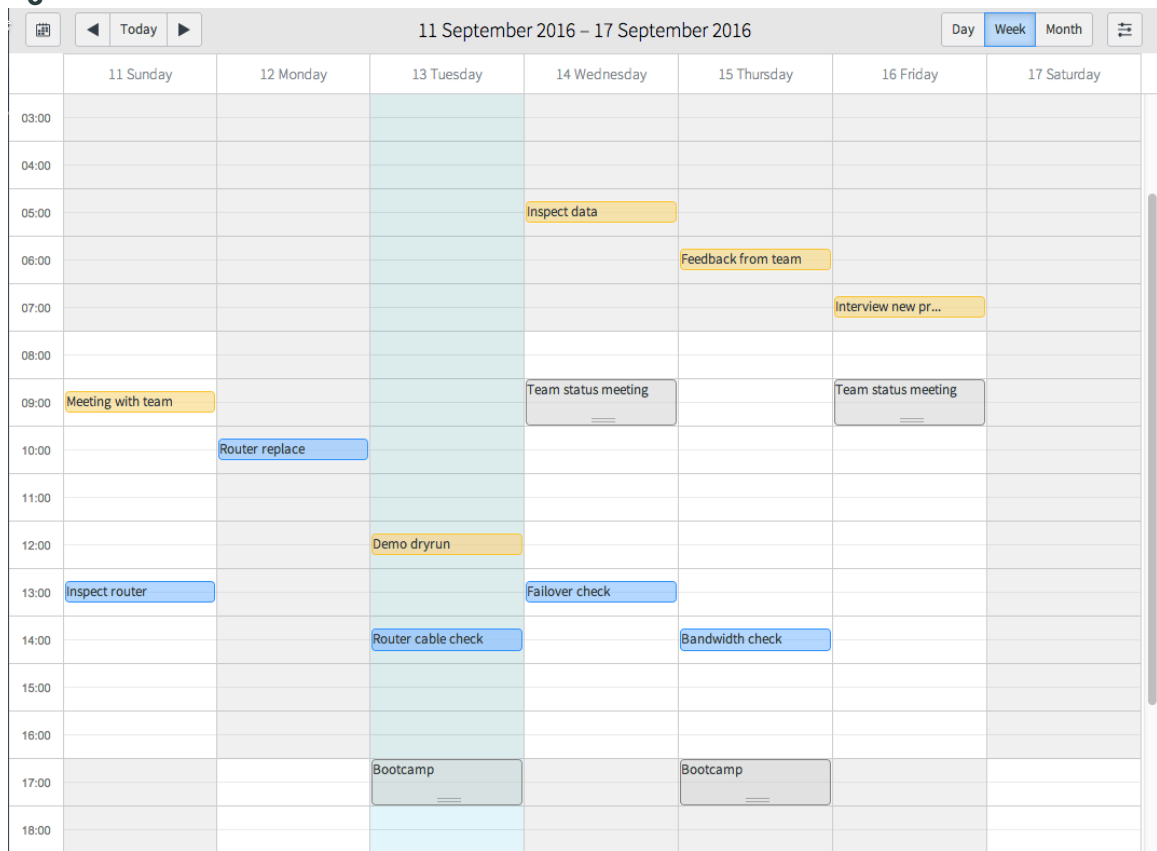
Customer service agents and field service technicians with the agent_schedule_user role can access their personal calendars in the following ways:

- **Customer Service > My Schedule**
- **Field Service > Agent > My Schedule**

Note:

The agent calendar is supported in the mobile application and the mobile web.

Agent Calendar



The calendar can display a single day, a week, or a month. Buttons in the calendar header allow you to switch views as well as go backward or forward in time. An agent's scheduled work hours are highlighted in gray and the current day is highlighted in blue. The agent calendar displays work or tasks assigned to the agent as well as personal events. Each type of event is displayed on the calendar using a different color.

Agents can add events to their calendars by double-clicking a specific time slot and entering the details in the New Event popup window or by clicking and dragging. Agents can also move events by dragging and dropping. Click an event to display a popup with event details and double-click an event to open the event record.

Plugins

The Agent Schedule plugin (com.snc.agent_schedule) is activated as part of the Customer Service Management and Field Service Management plugins.

Tables

The Agent Schedule plugin adds the following tables.

Tables installed with the Agent Schedule plugin

Table	Description
Agent Work Schedule [agent_work_schedule]	Stores one or more work schedules for each agent, including the date range for the schedule and the schedule type.

Tables installed with the Agent Schedule plugin (continued)

Table	Description
Agent Personal Schedule [agent_events]	Stores personal calendar events for each agent, such as training, personal time off, or meetings.
Event Configuration [agent_schedule_task_config]	Stores a configuration for each type of task displayed on the agent calendar, such as case tasks or work order tasks.
Agent Schedule User Config [agent_schedule_user_pref]	Stores the agent’s personalization data for the calendar. A user configuration is created automatically when a user with the agent_schedule_user role accesses their personal calendar.
Agent Schedule Relationship [agent_schedule_task_config_rel_user_pref]	Stores the relationships between agent configurations and event configurations. Relationship entries are created automatically based on a user's read access to the task tables selected in the event configurations.
Agent Schedule Definition Theme [agent_schedule_definition_theme]	Stores the colors used to display different types of tasks on the agent calendar.

User Roles

The following user roles are included with the Agent Schedule (com.snc.agent_schedule) plugin.

Roles included with Agent Schedule plugin

Role	Description
Agent schedule administrator [agent_schedule_admin]	Sets up the Agent Calendar configuration. Contains roles: <ul style="list-style-type: none"> • agent_schedule_user • schedule_admin
Agent schedule user [agent_schedule_user]	Allows customer service agents and field service technicians to access and update their personal calendars.

Related topics

[Creating and using schedules](#) 

[Configuring an agent calendar](#)

Allow agents to start traveling before their scheduled work hours

Support flexible work types by allowing agents to start traveling before their scheduled work hours. For example, you may want to add travel time outside of an agent's scheduled work hours in case bad weather suddenly increases travel time.

Before you begin

If you are an administrator, you can run a script and add travel time outside of work hours for all users.

Role required: wm_dispatcher, wm_manager, wm_admin, or admin

Procedure

1. Navigate to **All > Field Service**.
2. Do one of the following actions:
 - If you are a dispatcher, go to **Dispatching > My Agents**.
 - If you are a manager, go to **Manager > My Team**.
3. Select a user profile.
4. To add or update user records, do one of the following.
5. To add travel time as work hours for all users, do the following:
 - a. Navigate to **System Definition > Scripts - Background**
 - b. In the **Run Script** window, add the script to include travel time as work hours for all users.

Options to include travel time as work hours for users

Option	Description
Add travel time as work hours for all users	<p>i. Add this script:</p> <pre data-bbox="874 1094 1385 1957"> createWorkParamsForAllAgents("yes"); function createWorkParamsForAllAgents(travelOutsideWorkHours) { var now_GR = new GlideRecord("sys_user_has_role"); gr.addEncodedQuery("role=26c324ba1b32200096f9fbcd2c0713c2"); // fetching users having wm_agent role gr.query(); gs.info("total work agents found: "+gr.getRowCount()); var agentWorkParameter = {}; while (gr.next()) { var userId = gr.getValue("user"); if (!</pre>

Option	Description
	<pre> agentWorkParameter[userId] { var wp = new GlideRecord("wm_agent_work _configuration"); wp.initialize(); wp.setValue("user",userI d); wp.setValue("travel_outsid e_of_work_hours", travelOutsideWorkHours) ; // setting default value for travel_outside_of_work_ho urs wp.insert(); agentWorkParameter[userId] = true; } } } </pre> <p>ii. Click Run Script.</p>
<p>Update travel time as work hours for all users</p>	<p>i. Add this script:</p> <pre> updateWorkParamsForAgents(" yes"); // param1: default travel outside work hours value function updateWorkParamsForAgents(travelOutsideWorkHours) { var now_GR = new GlideRecord("wm_agent_work _configuration"); gr.query(); gs.info("total agent work parameters found: "+gr.getRowCount()); var updateCount = 0; while (gr.next()) { var canTravelOutside = gr.getValue("travel_outsid e_of_work_hours"); if (canTravelOutside != travelOutsideWorkHours) { gr.setValue("travel_outsid </pre>

Option	Description
	<pre data-bbox="874 159 1385 485"> e_of_work_hours", travelOutsideWorkHours); if (gr.update()) updateCount ++; } } gs.info("total agent work parameters updated: "+updateCount); } </pre> <p data-bbox="826 520 1070 552">ii. Click Run Script.</p>

Capacity

View, monitor, and manage the total available resources, such as time and workforce, that are used and allocated to tasks and projects.

View Capacity Usages information

View Capacity Usages information to track the capacity used by groups and agents.

Before you begin

Role required: wm_admin, wm_manager, and wm_internal_contractor_manager

Procedure

1. Navigate to **All > Field Service > Capacity Management > Capacity Usages**.
2. The Capacity Usages page provides information about capacity usage.

Capacity Usage Information Table

Field	Description
Capacity Assignment	The assignment table for which the usage is created.
Reservation rule	The reservation rules used when assigning the capacity.
Agent	The name of the agent. This field is applicable only if Agent Schedule is selected in the Capacity By field while defining the work load capacity for work order tasks.
Capacity used	Total amount of capacity used.
Start date	Date from which the capacity definition and reservations should be applied.
End date	Date until which the capacity definition and reservations should applied.

Related topics

[Configuring Field Service Capacity and Reservations Management](#)

Using the Capacity Console

The Capacity Console is a tool designed for monitoring, managing, and optimizing resource capacities across territories and demand channels.

It provides an intuitive, visual representation of capacity utilization, empowering capacity planners to make data-driven decisions and improve operational efficiency.

Note:

To use Capacity Console, you must activate the Field Service Advanced Capacity and Reservations management (com.snc.fsm_advanced_capacity_management) plugin. For more information, see [Activate Field Service Capacity console](#).

Comprehensive capacity view

The Capacity Console offers a detailed and visual overview of capacity utilization. Key views include:

- Territory view:
 - Displays resource capacity data for specific territories, with impacted demand channels listed underneath. For more information, see [Create a Field Service territory](#).
 - Provides insights into planned, allocated, and forecasted capacities.
- Demand channel view:
 - Highlights demand channels at the top, with impacted territories listed underneath. For more information, see [Create a demand channel](#).
 - Offers visibility into demand channels and their associated capacities.

Customizing the Capacity Console

Tailor the Capacity Console to align with your organization's needs.

- Set thresholds: Define thresholds for capacity utilization quickly to identify areas needing attention. The following are the example thresholds. However, you can customize them as your business terminology and needs.
 - Underutilized: Below capacity limits.
 - Optimalutilized: Efficiently using resources.
 - Overutilized: Exceeding capacity limits.

Note:

You can also customize color codes and legend labels to match your business terminology and clear categorization.

- Save filter preferences: Save your chosen filter settings for quick and easy access in future sessions.
- Customize calendar capacity data parameters: Update the calendar to prioritize specific metrics:
 - Replace existing metrics (for example, "Used Capacity" with "Unused Capacity").
 - Add new fields using the **Application Field Set**: Capacity Console events fields. For more information, see [Activate Field Service Capacity console](#).

Refining data with the filters

Customizable filters at the top of the console enable for tailored data views.

- **Default Filters:** Preselected filters display the most relevant data for quick insights.
- **Custom Preferences:** Adjust and save filters to suit specific business needs.
 - **Territory filter:** Focus on specific territories to understand their capacity and demand.
 - **Demand channel filter:** Refine data by additional parameters like demand channels.
 - **Group By filter:** Group data by demand channel or territory.
 - **Unit filter:** View capacity in terms of hours or tasks (for example, focusing on underperforming territories for a given week).
 - **Advanced filter:** Use thresholds to analyze data. Example, selecting **UnderUtilized** displays capacities below 25%.

Calendar features

The calendar in the Capacity Console provides flexible options to view and analyze data over time:

- **Flexible Date Ranges:** Adjust calendar settings to view data for specific timeframes, enabling better planning and trend analysis.
- **Default Views:**
 - Week view
 - Two-Week view
- **Manual refresh required:** Actions that impact calendar data, such as changes made in the Capacity Console or platform, require a manual refresh to display the latest data.

Use cases

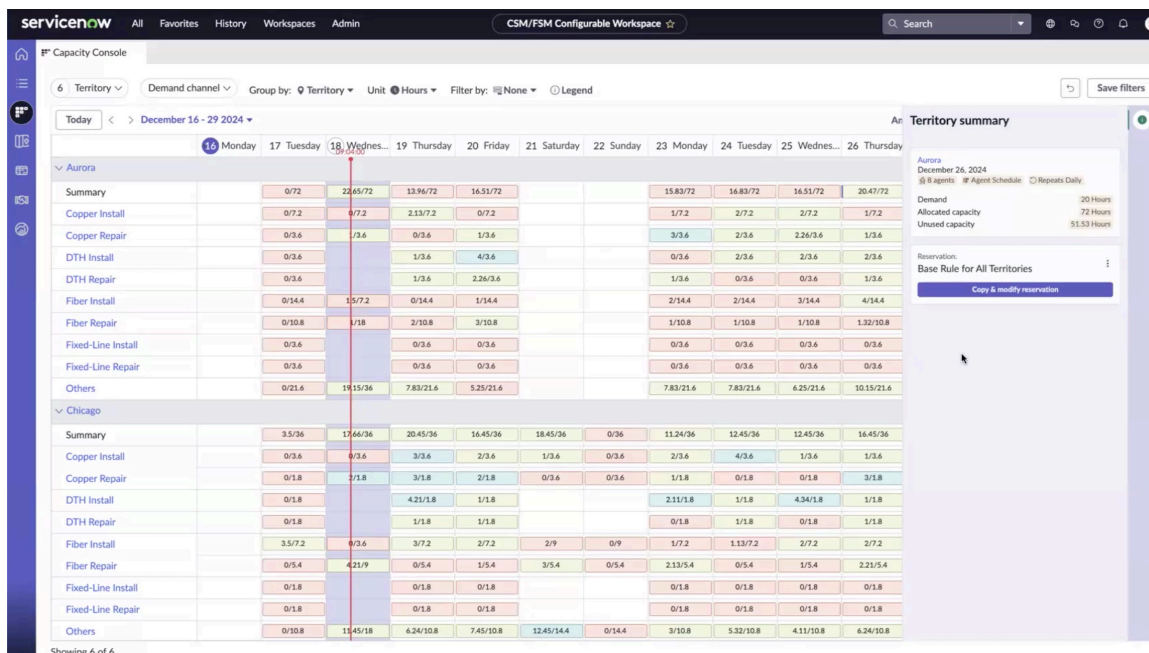
The following are a few use cases for the Capacity Console

- **Resource allocation:** Identify underutilized territories using filters and reassign agents from low-demand territories to nearby high-demand territories.
- **Demand analysis:** Use the Two-Week View to forecast future demand and make proactive resource adjustments to meet anticipated needs.
- **Advanced filtering:** Focus on overutilized territories to resolve bottlenecks and Analyze optimally used territories to maintain efficiency.
- **Demand channel insights:** Analyze capacity and demand metrics from a demand channel perspective and provide tailored data views for specific customer needs.

Visual overview of the Capacity Console

The following snapshot illustrates the Capacity Console, showcasing:

- Territories (for example, Aurora and Chicago).
- Demand channels (for example, Copper Install and Copper Repair).
- Weekly capacity metrics, including demand, allocated capacity, and unused capacity.



Related topics

[Capacity Console](#)

[View data in capacity console](#)

[View territory and demand channel summary in the contextual side panel](#)

[Update capacity value and reservation for a territory in capacity console](#)

View data in capacity console

The Capacity Console is a visualization tool designed to address common organizational challenges related to resource availability and capacity utilization. It enables real-time visibility into capacity, identifies bottlenecks, and enables quick adjustments to meet changing demands, helping organizations optimize their operations effectively.

Before you begin

Role required: fsm_adv_cap_mgmt.wm_capacity_planner, sn_fsm_capacity_mgmt.wm_capacity_write, sn_fsm_capacity_mgmt.wm_capacity_read

About this task

When you open the Capacity Console, the calendar appears to present the capacity of various territories and data from multiple demand channels. The other benefits are:

- **Real-time Insights:** Gain immediate visibility into resource utilization and capacity allocation for each territory.
- **Informed decision-making:** Identify underutilized or overutilized resources to optimize task assignments.
- **Selectable filters:** Use filters and preferences to tailor the data view to your specific needs.

Procedure

1. Navigate to **All > CSM/FSM configurable workspace > Capacity console**.
2. In the **Territory** filter, select the territories.
3. In the **Demand Channel** filter, select the demand channels.
4. Select the **Group by** filter and choose either territory or demand channel.

The data view can be grouped either by territory or demand channel, enabling the capacity planner to switch perspectives easily. For example, grouping by territory shows capacity for each territory, broken down by demand channels, while grouping by demand channel shows data for each channel and its territories.

5. Use the unit filter to choose between **Hours** for hour-based capacity assignments (for example, agent schedules and hour-type definitions) or **Tasks** for task-based capacity assignments, focusing on task distribution.
6. Use the advanced filter to view data specific to territories and demand channels based on performance.
Choose either of the following.
 - Underutilized (Orange): Displays days and demand channels with significant underutilization, enabling users to make targeted decisions. Less than 25% of capacity is used.
 - Optimally used (Green): Highlights areas with optimal usage, helping users maintain efficiency. Optimal utilization falls between 25% and 75%.
 - Overutilized (Blue): Identifies days and channels where capacity is exceeded, aiding in resource reallocation. More than 75% of capacity is over used.
 - No Capacity (Blank): No capacity is defined for the selected criteria.
7. **Optional:** Select **Save filters**.
Selections remain intact when you log in again or refresh the session.
8. Select the week using the calendar.
9. Choose the week view or two-week view for a broader perspective for capacity planning.
The default view is week-view.

Result

The capacity data appears in the calendar based on the applied filters.

Related topics

[Using the Capacity Console](#)

[View territory and demand channel summary in the contextual side panel](#)

[Update capacity value and reservation for a territory in capacity console](#)

[Activate Field Service Capacity console](#)

View territory and demand channel summary in the contextual side panel

The Capacity Console provides a comprehensive summary of territories and demand channels, enabling capacity planners and managers to make informed decisions about resource allocation and management.

Before you begin

Role required: fsm_adv_cap_mgmt.wm_capacity_planner,
sn_fsm_capacity_mgmt.wm_capacity_write, sn_fsm_capacity_mgmt.wm_capacity_read

About this task

When you select an event in the calendar or a specific data row, the contextual side panel (CSP) automatically appears on the right side of the screen. This panel provides a dynamic, context-specific interface, displaying relevant information and actionable options tailored to the selected event or capacity data row. It streamlines workflows by offering quick access to key details and actions without requiring navigation to other screens.

Procedure

1. Navigate to **All > CSM/FSM configurable workspace > Capacity console**.
2. View territory or demand channel summary.

Result

The contextual side panel opens to display summaries tailored to the selected context, providing key information and enabling actionable insights for users. Depending on the selection, the CSP may display:

- **Territory summary:** Provides detailed information about the selected territory, including metrics such as the number of assigned agents, capacity assignment type, or available hours in the specified period based on the capacity definition type of that capacity assignment. This summary supports capacity planners in making informed decisions.
- **Demand channel summary:** Displays an overview of demand channel details, including reservation and calculated capacity value for the selected period.

What to do next

You can change the capacity value and reservation in the contextual side panel.

Update capacity value and reservation for a territory in capacity console

The Capacity Console provides flexibility for capacity planners and managers to modify capacity value and reservation rule for better allocation of resources. Reservations determine the demand channels applicable and the percentage allocation of capacity for each channel on a given day.

Before you begin

Role required: fsm_adv_cap_mgmt.wm_capacity_planner,
sn_fsm_capacity_mgmt.wm_capacity_write

About this task

Use contextual side panel (CSP) to:



- **Update capacity value:** Capacity values can be modified for hours and tasks but not for agent schedules. Agent schedule values are dynamically calculated and cannot be adjusted manually.
- **Create or modify reservation:** The CSP allows two types of reservation updates:
 - **Create a new reservation:** Use this option to define a new reservation and apply it to the selected context.
 - **Override reservation:** Replace the current reservation with another from the existing list.

Note:

The **Copy & Modify Reservation** option is available only in the Territory Summary section.

Procedure

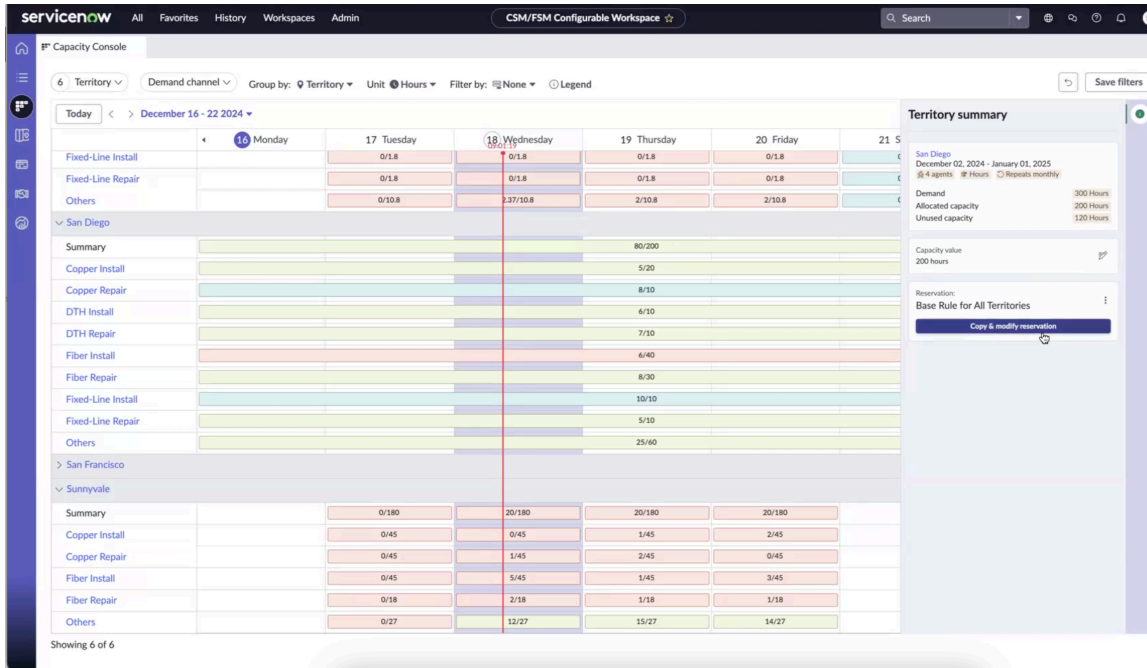
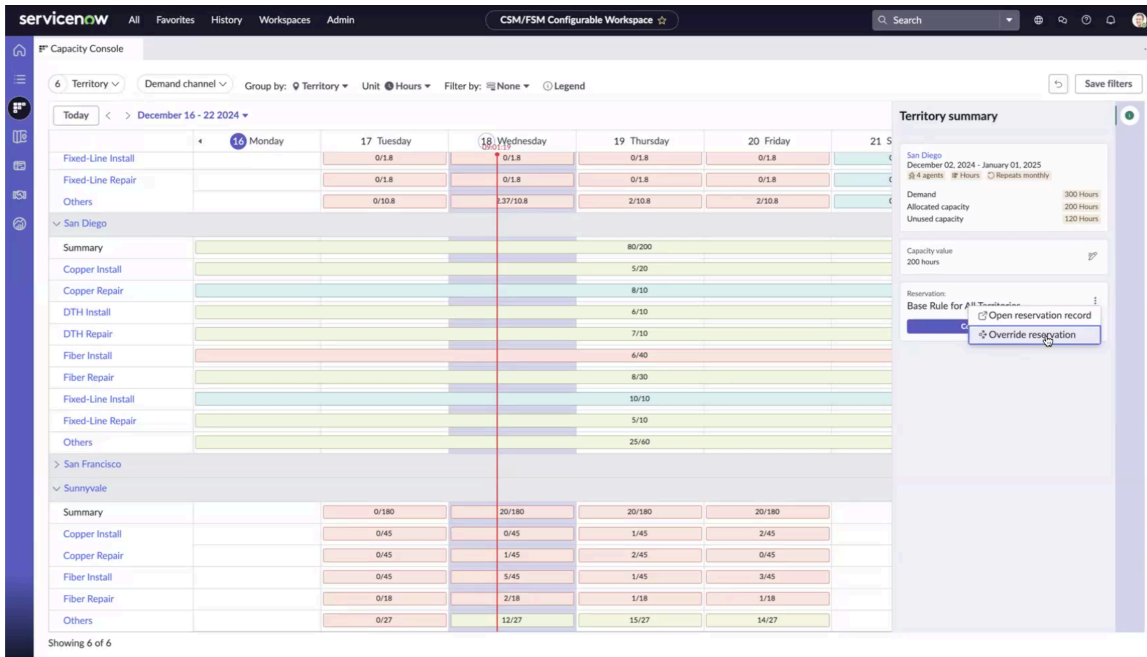
1. Navigate to **All > CSM/FSM configurable workspace > Capacity console**.
2. Select the **Group by** filter and choose **Territory**.
3. Locate the **Summary** row or an event for a specific duration within the territory.
4. Click on an event or data row in the calendar.
The Territory summary page appears in the contextual side panel.

5. To update the capacity value, select the Edit  icon and change the value in terms of hours or tasks in whichever way the capacity definition is defined.
6. To change the applied reservation, select the Actions  icon and click **Override Reservation**.
 - a. In the **Reservation** field, select an existing reservation from the drop-down menu.
Example: Base Rule for All Territories.
 - b. Click **Apply Override** to enforce the selected rule.
7. To create a new reservation by making a copy of current reservation, select **Copy & Modify Reservation**.
 - a. In the **New reservation name** field, enter the reservation name.
 - b. Change the values of the reservation as needed or add and remove demand channels.
Example: Fiber Repair: 25% with a maximum overflow of 100%.
 - c. Click **Apply modified reservation**.

Example: Reservation Modifications

1. Capacity assignment of type agent schedule - Scenario: Aurora (Daily assignment)
 - Adjust the reservation to allocate 10% capacity for Copper Repair and 30% for Fiber Repair.
 - Save the modified reservation to apply changes for the selected day.
2. Capacity assignment of type hours - Scenario: San Diego (Monthly assignment)
 - Modify the fixed capacity value (e.g., reduce from 200 hours to 180 hours).
 - Change the reservation to better align with the long-term capacity plan.
3. Capacity assignment of type tasks - Scenario: Chicago (Daily assignment)
 - a. Modify the fixed capacity value (e.g., reduce from 20 tasks to 10 tasks).
 - b. Change the reservation to better align with the long-term capacity plan.

The following snapshots showcases the actions performed in the contextual side panel of the capacity console.



Using Field Service Crew operations

Use Field Service Crew Operations to assign the same set of resources repeatedly to the tasks that requires a crew to work on them.

Related topics

[Using Dispatcher Workspace for crew operations](#)

[Managing crew tasks using the Now Mobile Agent application](#)

Assign work order tasks to crews

Assign crews to work order tasks that require a group of agents to work on them.

Before you begin

If you are scheduling a task across multiple schedule entries or days, a work schedule must have been assigned to the crew. For more information, see [Create a work schedule for agents](#).

Note:

If the crew schedule has not been defined and you are auto-assigning a task, the system uses the default schedule.

Role required: wm_admin, wm_dispatcher, and wm_manager

About this task

Key factors for task assignment:

- **Crew availability:** Confirms the crew's availability (effective dates) aligns with task deadlines (window start and end dates).
- **Agent skills:** Aligns specific skills needed for the task with those possessed by crew members.
- **Task requirements:** Matches crew capabilities with task demands.
- **Territory Membership:** Agent eligibility for task assignment is determined by their membership in the associated territory.

Note:

Territory Membership is available when the Territory Planning plugin is active and Territory Model is enabled.

Task assignment methods:

1. **Manual Assignment:** The dispatcher selects the best crew for the task, ensuring their effective dates align with the task window start and end dates. The dispatcher also checks agent availability within the crew based on their territory membership dates.
2. **Dynamic Assignment:** Dynamic Scheduling automatically assigns tasks to crews based on factors like crew availability, agent skills, and task requirements. If a suitable crew exists, it is assigned the task; otherwise, a new crew is created. When the dynamically created crew is assigned for a work order task within a territory, the crew membership is updated and appears in the Crew Membership related list of the territory.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Order Tasks**.
2. Open the work order task for assignment.
3. Select the **Needs Crew** check box if it is not already selected.
4. If you need to schedule work order tasks spanning multiple schedule entries or days, select the **Assign across the schedule entries** check box if it isn't already selected.
5. Assign the task either manually or through auto-assignment.

Result

The task is assigned to the crew. All crew members receive a push notification that the work order task is assigned. The Task Assignees table is added to the work order task for more information see, [Task assignees table for crew members or equipment](#).

Managing crew tasks using the Now Mobile Agent application

After the dispatcher dispatches work order tasks to a crew, tasks are sent to the assigned members of the crew, which includes the crew leader.

The crew leader and agents can access the work order task using the Now Mobile Agent application. Only the leader can accept or reject the work order task and other management actions. If the leader accepts the task, the task state automatically changes to Accepted. Other crew members can view the task details.

Crew members can use the Now Mobile Agent application to view the list of work order tasks assigned to them individually or to the crew they belong to. Agents cannot self-assign any tasks to themselves that require a crew.

Crew leaders can perform the following actions on the work order task:

- Accept or reject the task.
- Manage the task by setting the times for starting travel or starting work, pausing work, resuming work, and setting the state to Close Complete.
- View and access knowledge articles related to the task.
- Record the time the crew worked on a work order task as well as time spent on other activities for the crew members who worked on the task, including themselves.

Note:

The work and travel times recorded by the crew leader on the task are for all crew members.

- Add comments in the work order task.

Crew members can perform the following actions on the work order task:

- View work order task details.
- View and access knowledge articles related to the task.
- Add comments in the work order task.

Related topics

[Accept or reject a work order task](#)

[Start work on a work order task](#)

[Record time worked for a task or activity manually](#)

[Knowledge articles on Mobile Agent](#)

Add a resource to a crew task

Add resources that aren't part of a crew, like agents or pieces of equipment, if you realize they're required after the task has been created.

Before you begin

Role required: wm_dispatcher, wm_manager

Procedure

1. Navigate to **All > Field Service > All Work Order Tasks**.
2. Select the work order crew task for which you want to add a resource to.
3. In the **Task Assignees** tab, select **Add**.
4. On the form, fill in the fields.

Task Assignee Form

Field	Input
Requirement	Name the requirement.
Resource type	Set to Agent or Equipment .
Assignee	Search for and add the agent that you want to add to the crew task.

5. Select **Submit.**

The resource is added to the crew.

Add resource requirements for a work order task

Add the resources needed to complete a crew work order task, such as necessary agent skills or equipment items, to avoid delays after the task is assigned.

Before you begin

- The Equipment Scheduling plugin (com.snc.fsm_resource_scheduling) must be installed for you to be able to add any equipment-related requirement.

Role required: wm_admin, wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Work Order Tasks**.
2. Open the work order task.
The task must be in the Draft or Pending Dispatch state.
3. Select the **Needs crew** and **Resource requirements** options if they aren't already selected.
4. In the Resource Requirements related list, select **New**.
5. On the form, fill in the fields.

Crew Requirement

Fields	Description
Name	Name of the type of resource category. For example, electrician.
Resource type	Type of resource required for the task, either agent or equipment.
Minimum quantity	Minimum number of resources required to work on the task.
Recommended quantity	Recommended number of resources required to work on the task.
Mandatory skills	Skills required to complete a task. For example, wiring and soldering.
Skill level	If a single skill is entered in the Mandatory skills field, define a level for the selected skill.

Fields	Description
	<p>Note: You can't select a skill level for multiple skills.</p>
Optional skills	Skills that are optional to complete a task.
Mandatory	Option to indicate whether the resource requirement is mandatory in order to complete a task.
Leader	Option to indicate that the resource requirement should be matched with available agents to determine the leader.

6. Select Submit.

Change the time that an agent worked on a crew task

Update the time that an agent spent on a crew task if they spent more or less time on the task than the rest of the crew.

Before you begin

Role required: wm_admin, wm_manager, wm_dispatcher, wm_crew_moderator.

About this task

When you edit the Actual work start or Actual work end values, the Work duration and Actual work duration update for the agent.

Procedure

1. Navigate to **All > Field Service > Manager > Work Order Tasks**.
2. Select the complete work order task for which you want to change an agents time.
3. In the **Task Assignees** tab, select the **Resource type** on the name of the agent you want to edit the time worked for.
4. Update the **Actual work start** or **Actual work end**.
5. Select **Update**.

Workforce Optimization

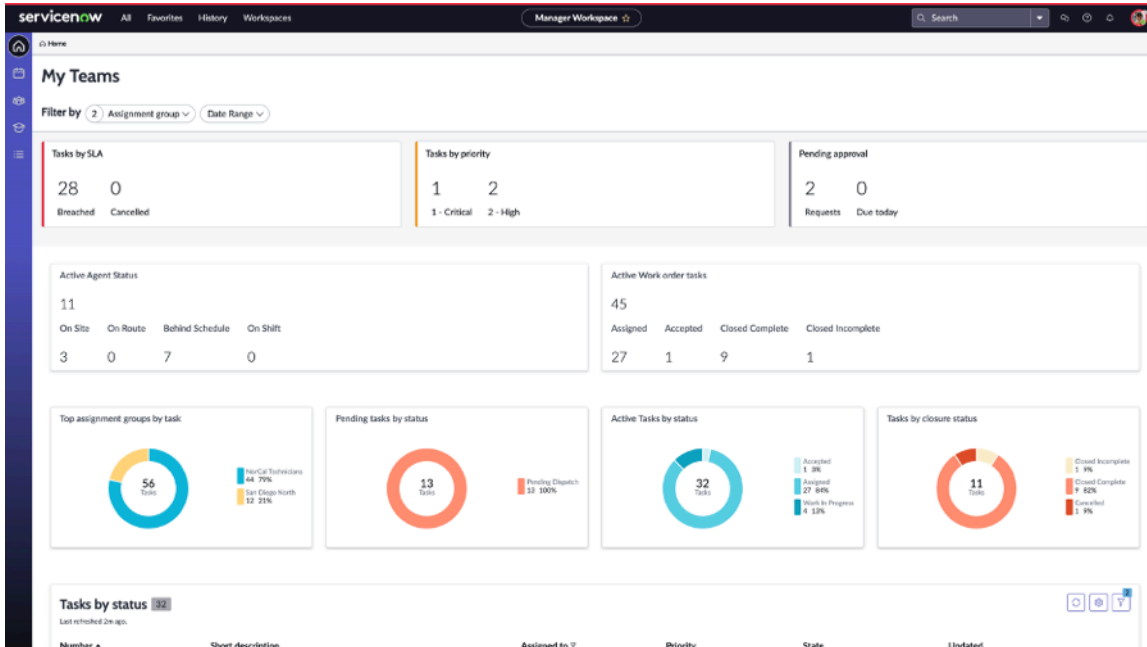
Enhance the quality and efficiency of your teams using smart scheduling, team structure, and real-time refreshing single scores. Assess the quality of tasks completed, recommend skills for agents, and train them to address skill gaps.

Related topics

[Configuring Workforce Optimization for Field Service](#)

Workforce Optimization for Field Service Manager Workspace dashboard

Monitor your teams' work and organizational performance using Workforce Optimization for Field Service. Stay on top of the status of the tasks your teams are working on at a given time.



End user and roles

End user and goal	Required role
<p>As a workspace manager, you can do the following:</p> <ul style="list-style-type: none"> Analyze the work order tasks your team is currently working on or tasks that have not yet been assigned. Monitor tasks with SLAs that have been breached, escalated, or not been open for 30 days. Track a team's work, chats, and work assignments to analyze the performance of your whole organization. 	<p>sn_wfo_fsm.manager</p>

Access the Manager Workspace dashboard

To open the dashboard, navigate to **All > Workspaces > Manager Workspace**.

Use cases

User	Dashboard use
<p>Manager</p>	<p>Monitor the work of your agents when you start your day, view reports that need your attention, and navigate to the tasks on which you want to take action. Analyze the performance of a specific team for a desired time period.</p>

Indicators

Manager Workspace offers the following indicators:

Open work orders

Displays the number of open work orders.

Mean time to resolve work orders

Displays the average number of days required to resolve work orders

% Productive time for tasks

Displays the percentage of productive time and how much it has increased or decreased for a specified period.

% Agent utilization for tasks

Displays the percentage of agent utilization and displays how much it has increased or decreased for a specified period.




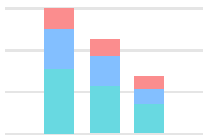
Breakdowns

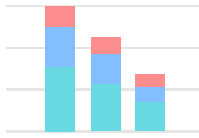






Manager Workspace includes the following breakdowns:

- Assignment Group
- Date Range

Data visualizations

Manager Workspace provides the following visualizations.

Title	Type	Description
Tasks by SLA	Single Score 	Number of breached and cancelled tasks.
Tasks by priority	Single Score 	Number of critical and high priority tasks.
Pending approval	Single Score 	Number of approval requests and requests that are due today.
Closed work orders	Stacked bar chart 	Displays the work orders that were closed by agents.
Weekly new vs. closed work orders	Line and Stacked bar chart	Displays the new and closed work orders that were

Title	Type	Description
		assigned to the assignment group by week.
Planned vs actual task duration	Stacked bar chart 	Displays the planned duration for the job and the duration taken to finish.
Weekly variance from total planned duration	Line and Stacked bar chart	Displays the weekly variance from the total planned duration.
Active Agent Status	Single Score 	Displays the number of agents and their statuses.
Active Work order tasks	Single Score 	Displays the number of active tasks and their statuses.
Top assignment groups	Donut 	Displays the number of active work order tasks and how many tasks each assignment group has.
Pending tasks by status	Donut 	Displays the number of pending tasks and a breakdown of pending tasks according to status, such as Draft and Pending Dispatch.
Active Tasks by status	Donut 	Displays the number of active tasks and a break down of active tasks according to status, such as Accepted, Assigned, and Work in Progress.
Tasks by closure status	Donut 	Displays the number of closed tasks and a breakdown of closed tasks according to status, such as Closed Incomplete, Closed Complete, and Cancelled.
Tasks by status	List	Displays the list of active tasks by status.

Scheduling in Workforce Optimization for Field Service


Scheduling in Workforce Optimization for Field Service enables you to manage your workforce resources efficiently by planning and managing schedules, staffing, and shifts across your

teams all from one location. You can also integrate with on-call scheduling and create shifts and schedule for on-call rotations.


Key features

With Scheduling, you can do the following:

- Add meetings, training, time-off requests, or ad hoc work shifts by using the team calendar.
- Filter agents in the team calendar based on their location, region, assignment groups, or any field in the agent's record.
- Create shift and schedule plans for agents.
- Approve or reject agent time off and shift-swap requests.
- Track and manage the team's schedule on the team calendar by viewing the planned shifts versus the actual clock-in and clock-out times for the selected day or week.
- Analyze whether your team members are following the schedules. If you see a potential issue, you can easily alert your team so that they can take immediate action.
- Use historical adherence reports to analyze and recommend coaching opportunities for your agents.

For more information about key performance indicators and sidebars, see [Exploring indicators with KPI Details](#) .

Schedule adherence

- Adherence is a metric to analyze how closely agents follow their schedule in completing the work assignments. Conformance measures the work completed regardless of when it was completed.
- A high adherence rate indicates that agents are sticking to their schedules and offering field service when expected. A low adherence rate suggests changing the processes or decisions to manage the team efficiently. The numbers are highlighted in red for non-adherent agents.
- Schedule adherence and conformance calculations are based on the formulas, agents' actual and planned work timings. The following are the default formulas that are used to calculate adherence and conformance for agents. However, your administrator can change the [formulas](#) , as required.

The following components and formulas are used to calculate adherence and conformance:

- The *shift_planning_clock-in* and *shift_planning_clock-out* scripts generate the agents' clock-in and clock-out events from the login and logout sessions. The business rule *Agent Time Work Event Trigger* generates clock-in and clock-out events whenever there is a change in agent's presence state.
- **Schedule Adherence**= (Minutes worked in shift/Scheduled shift time in minutes + Overtime)
- **Conformance**= (Minutes worked in shift + Overtime)/Scheduled shift time in minutes
- The ideal adherence percentage by default is above 70, and conformance is between 80 to 120. However, your administrator can change the threshold values. For more information, see [Scheduling in Workforce Optimization for Field Service](#). The agents who do not qualify to the defined threshold values are considered as non-adherent and are highlighted in red.

Create a work shift plan in Workforce Optimization for Field Service

Schedule shifts for your team so that you can make sure that you are covering all work assignments and breaks. You can also specify the days of the week that you might need to override scheduled shifts.

Before you begin

Role required: sn_shift_planning.admin

About this task

Create a work shift plan in Workforce Optimization for Field Service Management

In the **Shifts** tab, the shifts are grouped by active and inactive shifts. The contextual side panel displays the active and inactive shifts in the order displayed in the **Shifts** tab.


Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.

2. Click the Schedule icon ()

3. Click the **Shifts** tab.

4. In the contextual side panel, click the Show Shift Plans icon () to display the schedules.

5. Click the Create Work shift plans or On-call shifts () icon.

6. Click **Work shift**.

7. In the **Name** field, enter a name for the shift.

8. Set the time window for the shift.

a. In the **Time zone** field, select the time zone of the users that you want to allocate to the shift.

Note:

To add a shift for agents working in their local time zones, select the **Use agent time zone** option. The system uses the time zone that is specified in the agent's user record.

b. In the **Start time** field, enter the time of day when you want to start the shift.

c. In the **End time** field, enter the time of day when you want to end the shift.

d. Select the Active check box to make the work shift active.

e. Select the days of the week for which you want to add this shift.

f. Select **Save**.

9. Add schedule breaks to the shift.

a. Select the shift.

b. Click **Add break**.

c. In the **Name** field, enter a name for the break.

d. Set a duration for the break.

e. In the **Duration** field, enter the length of time for the break.

f. In the **Earliest Start time** field, enter the earliest time to start the break.

- g. In the **Latest End time** field, enter the latest time to end the break.

For example, you can set the earliest start time as 11:00, the latest end time as 15:00, and the duration of the break as one hour. If you add four agents to that work shift, the Scheduling application automatically staggers the break duration for each agent. Stagger breaks to ensure that your four agents can cover the entire shift span.

- h. Click **Save**.

- 10. **Optional:** View the number of agents for each hour or day on the shift span window.




Create an on-call shift plan in Workforce Optimization for Field Service

Schedule shifts for your team so that you can make sure that you are covering all work assignments and breaks. You can also specify the days of the week that you might need to override scheduled shifts.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Click the Schedule () icon.
3. Click the **Shifts** tab.
4. In the contextual side panel, click the Show Shifts Plans () icon to display the schedules.
5. Click the Create Work shift plans or On-call shifts () icon.
6. Create the on-call shift.
 - a. Click **On-call shift**.
 - b. In the **Name** field, enter a name for the shift.
 - c. From the **Group** field, select a group that you want to assign for the shift.
 - d. Select the time window for the shift by entering values in the **Start time** and **End time** fields, and selecting the time zone in the **Time zone** field.
 - e. Select the days of the week for which you want to apply the shift.
 - f. In the **Rotation start date** field, click the calendar icon, select the on-call rotation start date for the shift and click **OK**.
 - g. Click **Save**.
7. Create the on-call rotation.
 - a. Select the shift that you created.
 - b. Click **Create Rotation**.
 - c. From the **Agents** field, select the names of the agents you would like to be part of the shift from the list of all agents that belong to the group that the on-call shift is being created for.
 - d. From the **Rotate interval** field, select whether you want the rotation to be daily or weekly.
 - e. Click **Save**.

Note:

The **Escalation Type** field is auto-populated with the **Rotate through rosters** field value if multiple rosters have been created for the rotation. Otherwise, it is populated with **Rotate through members** field value.

8. Click **Publish** to make the shift active and publish it on the schedule.
To make an active on-call shift inactive and remove it from the schedule, you can click **Unpublish**.
9. **Optional:** View all on-call shifts that have been published on the schedule in the agent and team calendar.
When you add new agents to the on-call rotation, it might take some time to refresh the data on the team calendar.

Create a schedule plan

Manage your team's schedule by creating a schedule plan that covers a span of time and includes your team's work shifts. You can also assign agents to shifts based on their skills and availability to ensure you are using your resources efficiently.

Before you begin

Role required: sn_shift_planning.admin

About this task

You can set the number of days to cache agent schedules using the *sn_shift_planning.number_of_days_to_cache* system property.

The **Total coverage/demand** row displays the number of agents covering each shift in a day.

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.

2. Click the Schedule icon (.

3. Create a schedule plan.

- a. Click the **Team Calendar** tab.

Note:

You can analyze the staff alignment for a day or for the week.

- b. In the contextual side panel, click the Show Schedules () icon.

- c. In the Schedules panel, click the Create new  icon.

- d. In the **Name** field, enter a name for the schedule plan.

- e. From the **Start date** field, select a date to start the schedule plan and click **OK**.

- f. From the **End date** field, select a date to end the schedule plan and click **OK**.

- g. Click **Save**.

You can view the schedule of all agents in the assignment group that you directly or additionally manage.

4. Add a work shift to the schedule plan.

Note:

To add more shifts to a newly created schedule plan, select the schedule plan and then add the work shift.

- a. In the contextual side panel, click **Add Shift**.
 - b. In the **Shift** field, select the work shift that you want to add to the schedule plan.
5. Add agents to the work shift.
- a. In the **Agents** field, search for agents and add one or more agents to the shift.
 - b. Click **Save**.

Note:

It might take a few minutes for the screen to refresh.

Add schedule breaks to a shift

After creating a work shift, you can add schedule breaks to the shift.

Before you begin



You must create shift plan and a work shift before adding a break to the shift.

Role required: sn_shift_planning.admin

About this task

You can set the break period within a work shift by ensuring that all of your agents can cover the entire shift span. For example, you set the earliest start time as 11:00, the latest end time as 15:00, and the duration of the break as one hour. If you add four agents to the work shift, the Scheduling application automatically staggers the break duration for each agent. Stagger breaks to ensure that four of your agents can cover the entire shift span.

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Click the Schedule icon ().
3. Click the Show Shifts Plans icon () and select the shift for which you want to add the break.
4. Click **Add break**.
5. On the form, fill in the fields.

Break

Field	Description
Name	Name for the break
Duration	Length of time for the break.
Earliest Start time	Earliest time to start the break.
Latest End time	Latest time to end the break.

6. Click **Save**.

Publish a schedule plan for visibility into team coverage

Generate a preview of your schedule plan and publish it so that your agents can see their shifts and schedules ahead of time. You can unpublish a schedule to make changes and then publish it again.

Before you begin

Role required: sn_shift_planning.admin

About this task

You can make a copy of a schedule and update it to create a new schedule. Updates could include modifying the schedule start and end dates as well as adding or removing shifts or agents.

When you make a copy of the schedule, the following updates are automatically made to the schedule copy:

- The start date is set to the current date and the end date to 30 days from the current date.
- The schedule state changes to Draft. You can make the necessary changes to the shift and click **Save**.
- The schedule only displays agents in the assignment group of the current logged in user.

You can also unpublish a schedule make updates, and then publish it again.

- If the start date is the either the current date or had occurred in the past, the schedule state remains as Published and the end date changes to tomorrow.
- If the start date is in the future, the scheduler changes the schedule state and agent schedules to Draft.

Note:

If you no longer need a schedule in Draft state, you can click **Delete** to delete it.


Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.

2. Click the Schedule icon (.

3. Generate a schedule preview.

a. Click the **Team Calendar** tab.

b. Click the Show Schedules icon ( in the contextual side panel.

The team calendar refreshes and generates the preview when you save a work shift.

4. Publish a schedule.

a. Select a schedule and edit it if necessary.

b. Edit the schedule if necessary and click **Save**.

c. Click **Save**.

d. Click **Publish**.

Result

All the schedules that are in Draft state move to the Published state. You can view the published schedule in the team calendar.

Track and manage your team's schedule

Create, update, or monitor your team's schedule from one location. You can approve or reject requests for swapping shifts or time off for agents within your assignment group.

Before you begin

Role required: sn_shift_planning.admin

About this task

Using the calendar, you can do the following:

- View all of your agents by assignment group.
- Get insights into team compliance with published schedules.
- View agent's work schedule that is actual shift time vs clock-in and clock-out times.
- Filter the team calendar based on the values in the **Assignment Group, Location, Skills, Shift Plan, and Events** fields for a customized view.
- Modify agent's shift, clock-in, and clock-out times, if required

Note:

The "sn_shift_planning.agent" role is required for an agent's schedule to be visible in the Team calendar in Manager Workspace.

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.


2. Click the Schedule icon ()

3. Modify an agent's shift times.

The schedule that includes this shift must be in the Preview or Published state.

a. In the **Team Calendar** tab, navigate and point to the shift for the agent that you want to modify the schedule for.

Note:

Note: To avoid delays in loading events, as well as other processes that utilize a caching mechanism through an event queue, see [Custom queues to process events](#) .

b. In the shift pop-up window, click the Edit icon ()

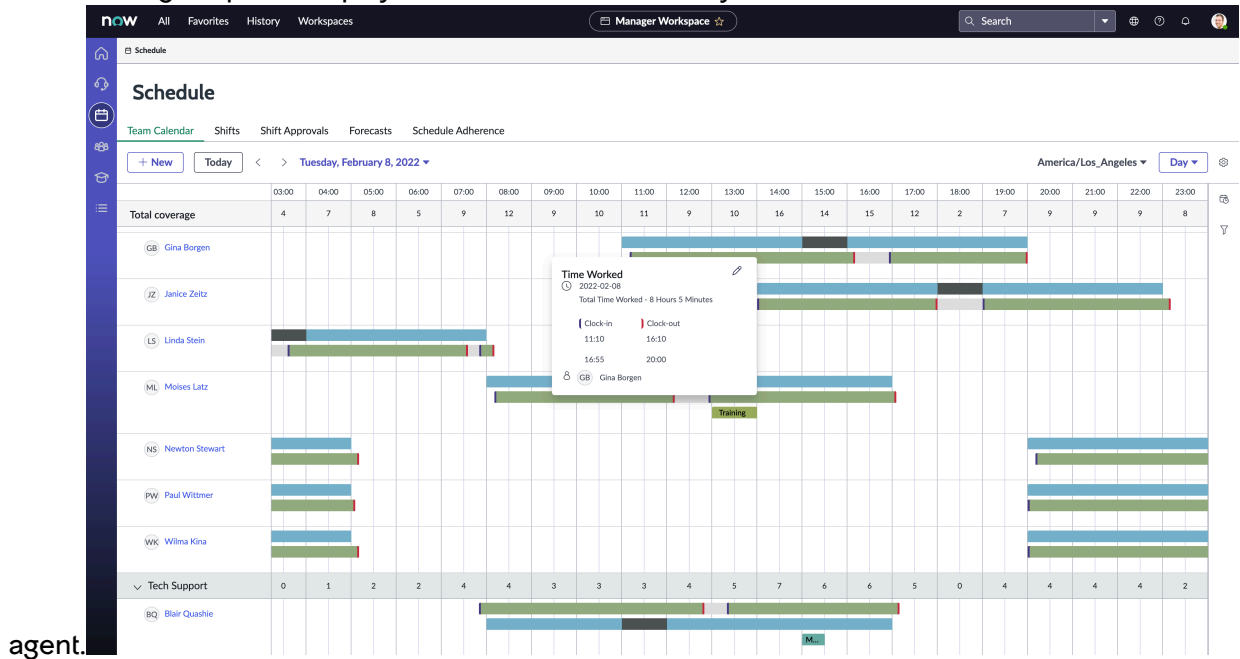
c. Modify the agent's shift time.

Note:

If the existing shift has a break, you can add more breaks to the shift.

d. Click **Save**.

The following snapshot displays the time worked summary for a selected



4. Approve or reject an agent's time off or shift-swap with another agent.

Note:

You must approve a request two days before the time-off or shift-swap start date. Outside that time period, the approval will be auto-rejected. For more information, see the descriptions of **Setting the due date for time-off and shift-swap request approvals** in [Components installed with Workforce Optimization for Customer Service](#).

Overlapping time-off requests by an agent will be rejected.

- a. Click **Approvals**.
- b. Select the request.
- c. Accept or reject the request.

You can view all agent requests in your queue and the details for each request.

- To approve a request, click **Approve**.

If you approve the request, the schedule gets updated in the team calendar based on the approvals.

- To reject a request, click **Reject**.

Monitor schedule adherence of your agents

Use schedule adherence to evaluate whether your agents are adhering to their assigned schedules. You can look for areas where low-value activity can be eliminated or reduced and further analyze staffing levels throughout the day.


Before you begin

Role required: sn_shift_planning.admin

About this task

For information on schedule adherence, see the "Schedule adherence" section in [Scheduling in Workforce Optimization for Field Service](#).

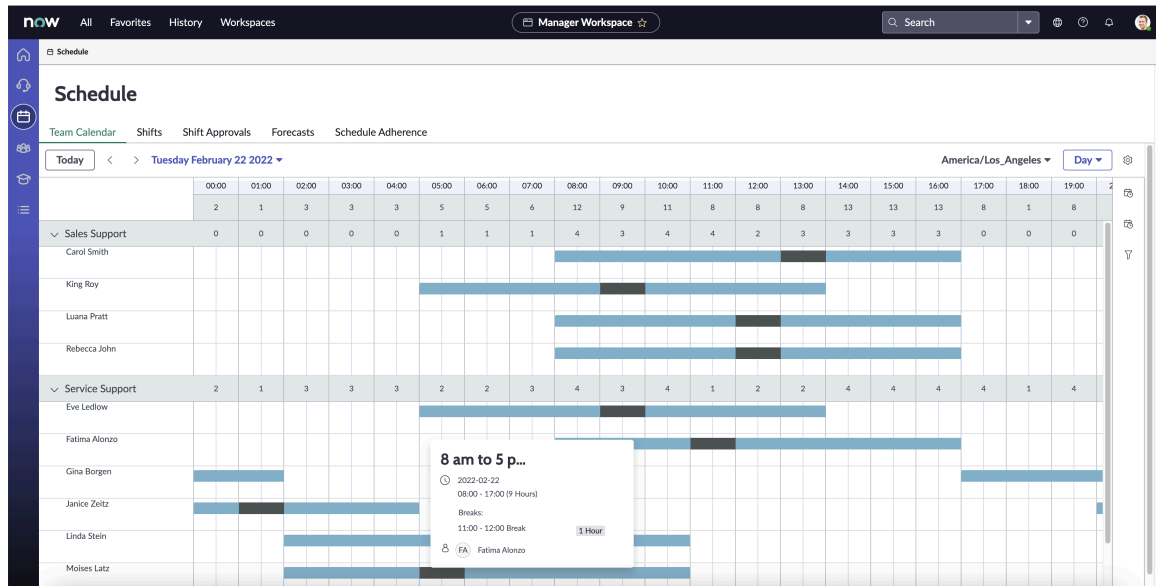
Procedure

1. Navigate to **Workspaces > Manager Workspace**.
2. Click the Schedule icon (.
3. Monitor the schedule adherence of your agents.

To	Do this
View schedule adherence at the organization or team level	<p>a. Click the Schedule Adherence tab.</p> <p>The bar chart appears with the schedule adherence percentage and conformance percentage of your teams.</p> <p>b. View the graph and drill down further to view the analytics of your team members by clicking on the bar.</p>
Analyze planned vs. actual scheduling for your team members	<p>a. Click the Team Calendar tab.</p> <p>b. Select the date.</p> <p>c. View the Time Worked summary by clicking on the bar representing the agent's actual time worked.</p> <p>i Note: The clock-in and clock-out timings are the actual work timings of your agents. The events are generated based on the agent's login, logout actions, and presence state. If an agent forgets to clock out, the system automatically generates the clock-out event after 60 minutes by default. However, your administrator can change it using <i>Default threshold time for clock-out event generation (in Minutes)</i> system property.</p> <p>Example: A clock-in event gets generated when an agent logs in or changes the presence status to Available. Similarly, a clock-out event gets generated when an agent logs out of the system or changes the presence status to either Offline or Break. If an agent fails to clock-out past 60 minutes of the shift end time, the system automatically generates the clock-out event.</p>

The following team calendar snapshot illustrates how to measure how well your team members are adhering to their work schedules. The blue bar indicates the planned work shift time and next to that is the actual worked time. The default representations are purple for clock-in

time, green for agent's available duration, red for the clock-out time, and grey for agent's non-available time.



Analyze adherence and conformance from the time worked summary

View the time worked summary of your team members to determine whether your teams are adhering to planned schedules. You can also use historical adherence, a reporting view of real-time adherence, to see how well your agents have followed their schedules in the past.

Before you begin

Role required: sn_shift_planning.admin

About this task

Adherence and conformance calculations are based on a defined configuration and your agents' actual and planned work schedules. For more information, see [Setting up scheduling in Workforce Optimization for Field Service](#).

i Note:

Your administrator can disable schedule adherence or change the configuration for adherence and conformance. For more information, see [Configure properties for schedule adherence and conformance](#).

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Drill down to view the time attendance and time worked summary of your agents.

To	Do this
Analyze time worked summary of your team	<p>a. Click the Lists icon (☰).</p> <p>b. Under Schedule Adherence, click Time Worked Summary.</p> <p>Note: The Available Non Planned time captures the time the agent was available and clocked in outside of the agent's scheduled work events. For example, if an agent is scheduled to attend a training from 13:00 to 14:00 but forgets to clock out that attendance, that time is considered the clocked-in time. The training time from 13:00 to 14:00 is captured as the available non-planned time.</p>
View your agents' time attendance	<p>a. Click the Lists icon (☰).</p> <p>b. Under Schedule Adherence, click Time Attendance.</p>

The following schedule adherence example shows how to measure how well your team is adhering and conforming with their work schedules.

User	Start Time	End Time	Planned Time	Time Worked	Time Not Worked	Adherence %	Conformance %
Newton Stewart	2022-03-03 00:00:00	2022-03-03 23:59:59	3 Hours 59 Minutes	1 Hour 28 Minutes	3 Hours 1 Minute	21.4%	37.0%
Valeria Weiss	2022-03-04 00:00:00	2022-03-04 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Wilma Kina	2022-03-05 00:00:00	2022-03-05 23:59:59	4 Hours	0 Seconds	4 Hours	0.0%	0.0%
Moises Latz	2022-03-04 00:00:00	2022-03-04 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Fatima Alonzo	2022-03-04 00:00:00	2022-03-04 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Moises Latz	2022-03-03 00:00:00	2022-03-03 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Rebecca John	2022-03-03 00:00:00	2022-03-03 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Carol Smith	2022-03-04 00:00:00	2022-03-04 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Carol Smith	2022-03-03 00:00:00	2022-03-03 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Camie Arrant	2022-03-04 00:00:00	2022-03-04 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Celia Tiggs	2022-03-03 00:00:00	2022-03-03 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Melia Kuhn	2022-03-03 00:00:00	2022-03-03 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Wilma Kina	2022-03-04 00:00:00	2022-03-04 23:59:59	7 Hours 59 Minutes	0 Seconds	7 Hours 59 Minutes	0.0%	0.0%
Eve Ledlow	2022-03-03 00:00:00	2022-03-03 23:59:59	7 Hours 59 Minutes	0 Seconds	7 Hours 59 Minutes	0.0%	0.0%
Blair Quashie	2022-03-03 00:00:00	2022-03-03 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Eve Ledlow	2022-03-06 00:00:00	2022-03-06 23:59:59	59 Minutes	0 Seconds	59 Minutes	0.0%	0.0%
Debora Feder	2022-03-04 00:00:00	2022-03-04 23:59:59	8 Hours	0 Seconds	8 Hours	0.0%	0.0%
Janice Zeitz	2022-03-02 00:00:00	2022-03-02 23:59:59	4 Hours	0 Seconds	4 Hours	0.0%	0.0%

Example:

To understand the computations of the fields in a time worked summary, consider Fatima Alonzo's work day:

- Shift time begins at 8 a.m. and goes to 4 p.m. = 8 hours
- Planned time = 8 hours = 480 minutes
- Clocks in 8 a.m. and clocks out at 12 p.m. for a break. Back from the break, clocks in at 12:30 p.m. and clocks out at 4 p.m.
- Minutes worked in shift = 480 - 30 = 450 minutes

- Schedule adherence= (minutes worked in shift/scheduled shift time in minutes + overtime) = 450/(480+65) = 82.57%
- Conformance= (minutes worked in shift + overtime)/scheduled shift time in minutes = (450 + 65) / 480 = 107.29 percent.

Note:

Fatima Alonzo is adherent because the schedule adherence and conformance are within the threshold. To see which agents are non-adherent, look for the numbers highlighted in red.

Add events to the team calendar

Create a meeting, training, time-off request, personal, or an ad hoc work event from the team calendar.


Before you begin

Role required: sn_shift_planning.admin

About this task

You can create custom event types and add or remove fields. For more information, see [Create event types to display on the team calendar with Workforce Optimization for Field Service](#).

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Click the Schedule icon (.
3. Click the **Team Calendar** tab.
4. Click **+New**.
5. Create an event.
6. Click **Save**.

Teams in Workforce Optimization

Use Teams to track and analyze performance trends for your teams from a single location. You can monitor the trends for each agent within your team and compare your agents or team members with one another.

With Teams, you can do the following:

- Identify skill gaps so that you can recommend which skills are needed to coach your agents.
- Organize your teams into assignment groups. You can add a set of key performance indicators (KPIs) to help you measure team performance consistently across the groups. For example, the Customer Service Desk unit contains multiple teams, such as Hardware and Network Support. You can create a KPI group for the Customer Service Desk unit and then add Hardware and Network Support as assignment groups to this KPI group. Next, you could add a set of KPIs to the KPI group. With this data, you can measure the performance trends across the Hardware and Network Support teams.
- Compare KPIs between multiple teams belonging to the same KPI group.
- View the KPIs between the selected date range.
- Drill down into a Team level KPI to view the split of KPIs across all individual team members.

- View the KPI trend to analyze the future forecasts for each of the KPIs, if the date range has the latest values.
- Drill down to the individual agent level to view a 360-degree view of the current work, historical KPIs, presence history, channel capacity utilization, skills, and upcoming agent time-offs.


Analyze the performance trends for your teams

Analyze trends to monitor your team's performance and adherence within a KPI group. Analyze the data by drilling down into the data for a team, a specific team member, an indicator, or a case.

Before you begin

Role required: sn_wfo_fsm.manager

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Click the Teams icon .
3. Select a date range to view your teams' performance for that time period.
You can set the default date range using the `sn_team_perf.default_date_range` property. For more information, see [Workforce Optimization for Field Service components](#).
4. Analyze team performance.
 - a. Select a team.
 - b. In the **Performance** tab, track and analyze the overall indicator performance for all members in the team.
 - c. Drill down into the data for the team.

Option	Do this
Analyze indicator performance	<ul style="list-style-type: none"> ▪ To analyze the indicator performance for the team, select an indicator value for the team in the header row. ▪ To analyze indicator performance for a team member, select an indicator value for the team member.
Track cases	<p>Select the Tasks tab and analyze all cases related to the team.</p> <ul style="list-style-type: none"> ▪ To view the case details, select a case. ▪ To view a team member's details, select the team member.


You can also review cases, details of assignment groups, additional managers, and information relevant to the team.

Coaching in Workforce Optimization for Field Service

By using Coaching in Workforce Optimization for Field Service, you can assess your team's abilities to efficiently resolve tasks by reviewing their work at critical moments of providing field services.

Key features

With Coaching, you can do the following:

- Recommend training for your agents to address skill gaps.
- Use the coaching opportunities that are available by default to coach your agents. You can also create a coaching opportunity using the Coaching application specific to your agent's needs. For more information, see [Workforce Optimization for Field Service components](#) and [Define trigger conditions for a coaching opportunity](#) 
- Use assessments and surveys to apply consistent, measurable scores across teams.
- Use Predictive Intelligence to recommend skills for your agents and provide training to address those skill gaps.

Coaching Overview in Workforce Optimization for Field Service

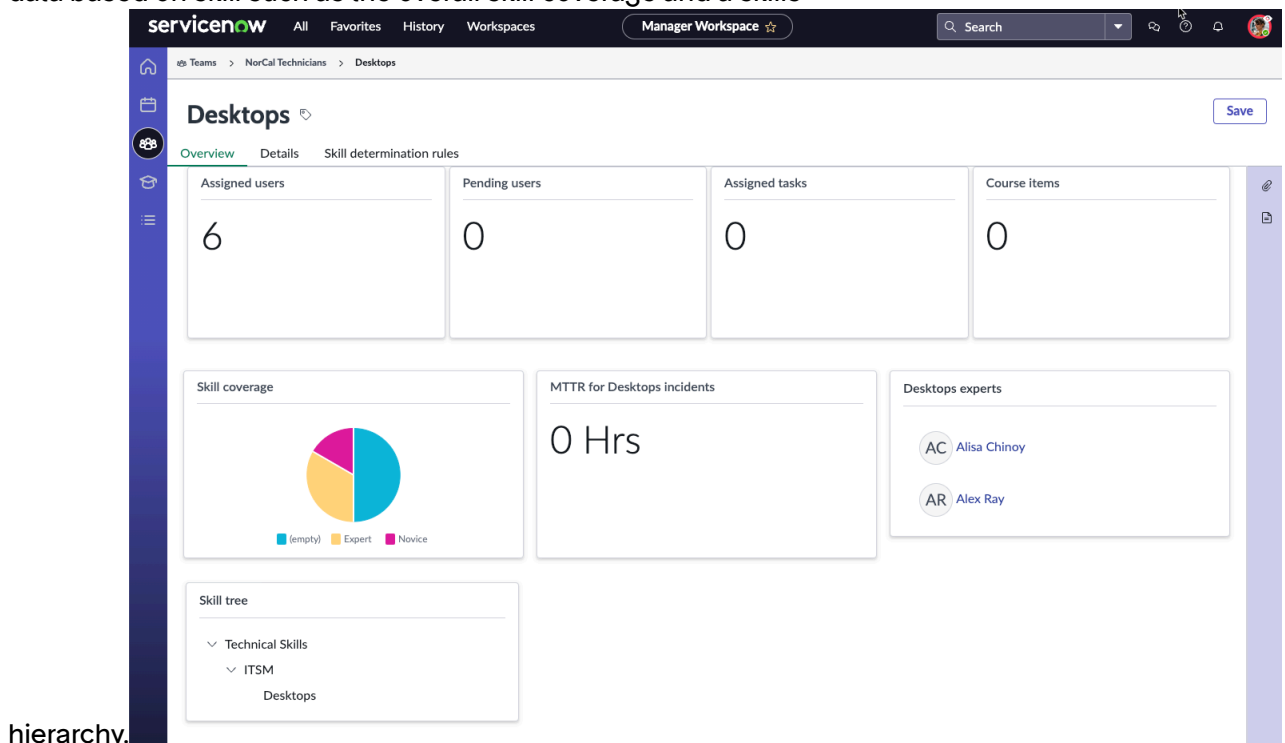
The Coaching Overview screen displays the average quality of the tasks that were completed in the past 30 days for your assignment groups.

- The donut chart displays the number of assessments in various states of completion. You can point to one of the states and click to open all assessments in that state.
- The bar chart displays assessments created by coaching opportunities. You can click on any of the data in the graph to access the assessments.
- You can click on the graph that displays the indicator data and access detailed information on the indicator.

Skills Overview in Workforce Optimization for Field Service

Use Skills Overview to analyze skill data, such as how many skills are assigned to users and tasks. You can also see how many experts you have for a particular skill and the overall skill coverage by your teams.

The following image illustrates the information displayed on the Skills Overview main page, which includes different types of data based on skill such as the overall skill coverage and a skills



Use cases

User	Landing page use
Skill Admin [skill_admin]	<ul style="list-style-type: none"> Analyze all experts available for each skill. Drill down into the skill hierarchy. Number of skills assigned to users and tasks. Mean time taken to resolve incidents for that skill. Visualize how many users you have at different skill levels.

Indicators

MTTR of incidents of skill - Mean time taken to resolve incidents with this skill.





Breakdowns

The data displayed in the MTTR of incidents of skill indicator is calculated based on the skill used to resolve the incident.

Reports

Important:

The Pending Users and Assigned Tasks reports display when you enable the Coaching with Learning application from the ServiceNow® Store. To enable this application, see [Activate Workforce Optimization for Field Service](#).

Title	Type	Source table	Description
Assigned Users		User Skill [sys_user_has_skill]	The number of users who have the selected skill assigned to them.
Assigned Tasks		Task Skill [task_m2m_skill]	The number of tasks for which this skill has been assigned.
Pending Users		Pending Users [sn_lc_learning_task]	The number of users who are yet to be assigned the selected skill from the learning task.
Course Items		Learning Course Item [sn_lc_course_item]	The number of internal and external courses that have the skill associated with the course item.
Skill Overview Container	Visualization components	None	Contains the following components:

Title	Type	Source table	Description
			<ul style="list-style-type: none"> • Reports • Mean Time to Resolution (MTTR) indicator • Skill Coverage pie chart • Content tree • Skill Experts components
Skill Tree Connected	Tree	None	The skills hierarchy. If the selected skill does not have a skill hierarchy then the component will not display on the Skill Overview page.
Skill Experts	List	None	All users who are at the expert level for the skill.
Skill Coverage	Pie chart	None	The percentage as well as the number of users with different levels of expertise for the skill.

Access Skills Overview from Manager workspace

Access Skills Overview from Manager Workspace using either the Scheduling application or the Teams application to analyze skill data.

Before you begin

Role required: skill_admin

About this task

You can access Skills Overview from Manager Workspace using the Teams or Shift Scheduling application.

Note:

You must enable the Coaching with Learning application to view the reports from the application. For information about enabling this application, see [Activate Workforce Optimization for Field Service](#).

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Access Skills Overview from either the Teams application or the Shift Scheduling application.

Result

Skills Overview displays the skill data, such as how many skills are assigned to users and tasks along with the data providing the number of experts for a particular skill and the overall skill coverage by your teams.

Assess the quality of completed tasks

Assess the ability of your agents to resolve tasks or the quality of their completed tasks.

Before you begin

Role required: sn_coaching.coach

About this task

You can create an assessment from an interaction or any task type.

When you manually create an assessment, you can add a survey to it. Coaching assessments also get created and assigned to the coach based on the trigger conditions that are defined in coaching opportunities.

If the coaching opportunity includes a survey, you can opt to take the survey and the assessment. When you use a survey to assess a trainee, the score for the survey is automatically calculated when you complete the survey. The assessment rating is then updated based on that score. For more information, see [Assess a trainee](#).

The Coaching Overview screen displays the average quality of the tasks that were completed in the past 30 days for your assignment groups.

- The donut chart displays the number of assessments in various states of completion. You can point to one of the states and click to open all assessments in that state.
- The bar chart displays assessments created by coaching opportunities. You can click on any of the data in the graph to access the assessments.
- You can click on the graph that displays the indicator data and access detailed information on the indicator.

Procedure

1. Navigate to **Workspaces > Manager Workspace**.
2. Click the Coaching (🎓) icon.
3. Perform assessments.
4. On the form, fill in the fields to assess the agent.

Assessment form

Field	Description
Opportunity	Coaching opportunity associated with the coaching assessment.
State	State of the assessment. <ul style="list-style-type: none"> ○ Open: New coaching opportunity ○ Work in progress: Trainee is being coached ○ Resolved: Trainee is assigned coaching programs and training modules.

Field	Description
	<ul style="list-style-type: none"> ○ Closed Complete: Assessment has been resolved and closed. ○ Closed Incomplete: Assessment that has been closed but not completed, typically because the coaching assessment due date has expired.
Assessment Rating	How well the agent resolved the incident. The Coaching application automatically populates this field when a coach completes a survey for the trainee.
Follow up	Whether the coach must take further action to improve the trainee performance.
Comments	Optional notes to add about the assessment.
Survey taken by coach	<p>Survey for the trainee taken by the coach.</p> <p>You can add a survey for an assessment when you create the assessment manually or when the coaching opportunity triggers an assessment that does not have a survey.</p> <p>When a coaching opportunity triggers an assessment and contains a survey, the survey is automatically added to the assessment and cannot be changed by the coach.</p>
Survey taken by trainee	Survey for the coach taken by the trainee.
Add skills	Skills to add to the trainee profile when the assessment is complete. Selecting this field displays all the skills and the skill levels that are not in the trainee's profile.
Add training	<p>Training to assign to the trainee.</p> <p>You can also assign learning tasks from course items.</p>

5. Save the assessment.

- To complete the ad hoc assessment, click **Save**.
- To complete assessments creating using coaching opportunities, click **Complete assessment**.

Manage skills using Workforce Optimization for Field Service

Add or update skills for an agent. You can approve predicted skills if the skill is necessary for the agent to complete assigned tasks. You can also reject a skill if it doesn't apply to the agent.

Before you begin

Role required: admin

About this task

The Predictive Intelligence application for skills displays the recommended skills on each agent's profile. The application uses sample cases that the agent has worked on to recommend skills for an agent.


You can view skills for all users grouped by assignment group and the overall skill coverage for each group.

Procedure

1. Navigate to **Workspaces > Manager Workspace**.

2. Click the Coaching (🎓) icon.

3. Click the **Skills** tab.

You can view the list of all assigned skills and the skill level for each agent on your team. For more information on skills and skills levels, see [Skills Management](#) .

You can also filter the skill matrix based on users, groups, skill type, skill level, or skill category. Reset the filter if you want to view the skills for all users.

4. Add a skill or skill level.

5. Approve or reject a skill that is recommended by Predictive Intelligence.

a. In the skill matrix, click **Recommended** to approve and recommend a skill for the user.

b. In the **Details** tab, review the request for skill approval, the sample case resolutions that were used to predict the skill, and the activity stream.

- To approve a skill, click **Approve**. The skill is added to the agent and the lowest level for the skill is automatically associated with the added skill. The state for the request changes to **Approved** and the skill is added to the agent.

- To reject a skill, click **Reject**. The state for the request changes to **Rejected**. Predictive Intelligence does not recommend the skill for the user again and the field changes to **Add**.

- Click the More Options (***) icon and select **Save**.

The application assigns the skill to the user. If the assigned skill does not have a skill level, the application adds the basic skill level to the user.

Coaching with Learning

Use Coaching with Learning to train your agents with internal and external learning content. Organize similar content in catalogs. Assign learning tasks and track completion.

Important:

Coaching with Learning is available when you enable the Coaching with Learning application from the ServiceNow® Store. To enable this application, see [Activate Workforce Optimization for Field Service](#).

Create a learning library

Create a catalog to organize related content into categories.

Before you begin

Role required: sn_lc.catalog_manager

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.

2. Click the Coaching (🎓) icon.

3. Click the **Learning** tab.

4. Click **Learning libraries** and select **My learning libraries**.

5. Create a learning library.

- a. Click **New**.
- b. In the **Title** field, enter a unique name for the catalog.
- c. In the **Description** field, enter a description for the catalog.
- d. Click **Save**.

Note:

The catalog is visible to all groups that you directly or additionally manage.

6. Add course items to the library.

- a. Click the **Content** tab.
- b. Click **Add**.
- c. In the **Add Learning Courses** pop-up window, select all course items you want to add to the catalog.
- d. Click **Add**.
The course items are added to the catalog.

Note:

To remove any course item you have added, select the course item and click Remove.

7. Add a group to a library.

- a. Click the **Applicable Groups** tab.
- b. Click **New**.
- c. In the **Group** field, select a group that you want to associate with the catalog.
- d. Click **Save**.

Create a learning task

Create learning tasks for agents to keep track of their learning activities.


Before you begin

Role required: sn_lc.task_creator

About this task

Set learning task completion due dates to include or exclude weekends using the *exclude_weekends_on_learning_task_due_date* system property. For more information, see [Workforce Optimization for Field Service components](#).

Procedure

1. Navigate to **Workspaces > Manager Workspace**.
2. Click the Coaching icon (.
3. Click **Learning Tasks** and select **All Tasks**.
4. Create a learning task.
 - a. Click **New**.
 - b. Fill in the following fields.

Name	Description
Assigned to	Name of the agent to whom you want to assign the learning task.
Course item	The course that needs to be completed by the agent.
Due date	Date when the agent must complete the course. Default is 5 days after the creation of the learning task. This value is calculated from the Days to Complete field for the course item. The due date field is highlighted as follows: <ul style="list-style-type: none"> ▪ Green—if the task is due before the current day. ▪ Yellow—if the task is due on the current day. ▪ Red—if the task is due after the current day.
Catalog	The catalog that contains the course item for the learning task.

5. Click **Save**.


Create internal learning content

Add internal courses so that agents can learn new content and enhance their skill set.

Before you begin

Role required: sn_lc.content_creator

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Click the Coaching icon (.
3. Click **Learning Courses** and select **Internal Courses**.
4. Create an internal learning course.
 - a. Click **Create new course**.
 - b. On the form, fill in the fields.

Learning Internal Content

Name	Description
Title	Name of the course.
Internal source	Type of content for the course. Here are the available types of courses: <ul style="list-style-type: none"> ▪ URL—YouTube, Vimeo, or any link for a video ▪ Knowledge article ▪ Free form
Days to complete	The number of days required to complete the course. Default value is set to 5.
Course catalog	The catalog associated with the course.
Knowledge article	If the internal source is a knowledge article, select the article.

Name	Description
Estimated duration	Length of time when the course has to be completed. For example, for a video, it is the duration of the video. For a KB article, the duration is estimated based on the length of the article.
Description	Description of the course.

5. Click **Save**.

6. Add a skill to the internal content.

- a. Click the **Associated skills** tab.
- b. Click **New**.
- c. In the **Skill** field, select a skill you want to associate with the internal content.
- d. In the **Skill level** field, select a skill level for the selected skill.
- e. Click **Save**.

7. Add a learning task to the internal content.

- a. Click the **Learning Tasks** tab.
- b. Click **New**.
- c. In the **Assigned to** field, select a trainee to whom you want to assign the learning task.
- d. In the **Catalog** field, select the catalog to associate with the learning task.
- e. In the **Due date** field, click the calendar icon and select the date and time when you want to trainee to complete the learning task.
- f. Click **Save**.


Add external courses to coaching with learning

Add courses from external sources such as Udemy, Pluralsight, or Cornerstone to enable your users to gain skills from external content.

Before you begin

Role required: sn_lc.learning_admin

Procedure

1. Navigate to **All > Workspaces > Manager Workspace**.
2. Click the Coaching icon (.
3. Click the **Learning** tab.
4. Click **Learning Courses** and select **External Courses**.
5. Select a course.
6. Click **Go to course**.

Result

You can review and learn the external course.

Mobile experience for Workforce Optimization for Field Service

Manage work order tasks from your mobile device with the Now Mobile Agent application. You can stay connected and access information in real time so that you can complete your tasks quickly.

If you're an agent (sn_fieldservice_agent) or a manager (sn_wfo_fsm.manager), you both can use real-time notifications from the application to take action on an issue. Before you can do so, you must activate the Field Service Mobile plugin (com.sn_fsm_mobile). For more information, see [Mobile experience for Field Service Management](#).

- To get started with this application, follow the instructions in [Connect to your Field Service data](#).
- Field Service agents can receive their scheduled task updates and access their schedules when in offline mode. For more information, see [Scheduled offline caching](#).
- For information about the agent and manager tasks that you can perform, see [Complete work orders on Mobile Agent](#). Additionally, you can also perform the tasks in the following table through Workforce Optimization for Field Service.

Agent tasks

Agent tasks	Action	Description
Approve or reject shift-swap request	<ul style="list-style-type: none"> • Tap the notification. • Approve or reject the shift-swap request. 	Agent receives a notification that the shift-swap request has been either approved or rejected.

Manager tasks

Manager tasks	Action	Description
Approve or reject time-off request	<ul style="list-style-type: none"> • Tap the notification. • Approve or reject the time-off request. 	Agent receives a notification that the time-off request has been either approved or rejected.
View critical and high priority tasks that breached SLA	Tap the notification. The task record appears.	Review the task record and take appropriate action.

Scheduling and dispatching work order tasks to agents

Send agents to work on the tasks.

You can:

- Assign tasks to agents
- Use dispatch map to monitor agent and task status
- Dispatch tasks to agents

Related topics

[Setting up a Field Service scheduling method](#)

Assigning work order tasks to agents manually

When all of the work order tasks associated with a work order are qualified, you can dispatch the work order tasks. You can dispatch them from either the task form, the task map, or Dispatcher Workspace.

When all of the associated work order tasks are qualified, the state of the parent work order changes to Qualified. If you have already [sourced parts](#) and created [transfer order lines](#), then you are ready to begin dispatching the work order tasks to agents.

Users with the following roles can dispatch work order tasks: `wm_dispatcher`, `wm_initiator_qualifier_dispatcher`, or `wm_admin`.

You can dispatch work order tasks to qualified work agents from these locations:

- [Dispatch queue](#): Dispatch tasks to agents from task records.
- [Task map](#): Dispatch tasks to agents using a Google map with geolocation.
- Dispatcher Workspace: Dispatch tasks to agents using the drag-and-drop and auto-assign capabilities.

i Note:

When dynamic scheduling is enabled, dispatchers can manually double-book an agent for more than one work order task with overlapping time. You can enable double booking using `work.management.allow.doublebooking.dynamicscheduling` [system property](#).

Assign work order tasks to agents or crews from the dispatch queue

Dispatch a work order task from the dispatch queue. You can also reassign the task from the queue.

Before you begin

Role required: `wm_dispatcher`, `wm_initiator_qualifier_dispatcher`, or `wm_admin`

Procedure

1. Navigate to **All > Field Service > Dispatching > My Dispatch Queue**.
2. Open a work order task.
3. Assign task to an agent or a crew.
4. Click **Update**.

Result

The work order task is assigned to the selected agent or a crew.

If the agent rejects the task, you can view the task rejection details in the Task Rejections related list of the work order task. If the agent does not accept in a specific time period, the work order task is automatically rejected. You can reassign the task to another available agents.

Dispatch a work order task from the task map

Dispatch a work order task from the task map. You can also reassign the task from the map.


Before you begin

Role required: `wm_dispatcher`, `wm_initiator_qualifier_dispatcher`, or `wm_admin`

About this task

You can use the dispatch map if you urgently need to dispatch a task or to reassign a task to an alternative agent. The task must have a location with a defined latitude and longitude.

Procedure

1. Navigate to **All > Field Service > Dispatching > My Dispatch Queue**.
2. Open the work order task that you want to dispatch or reassign.
3. Click **View Task on Map**.
This button is available only if the task contains a location with a defined latitude and longitude. The map displays a red task icon with a black spot for the task, and shows icons for all nearby agents.
4. To apply filters on the agents, do the following:
 - a. Click **View Filter**.
 - b. Select a skill level for the agents to display in the map.
Possible filters for skills are as follows:
 - **Match all needed skills**
 - **Match some needed skills**
 - **Match none of skills**
 - c. Click **Apply Filter**.
The list shows the agents on the map who match the skills selection.
5. Click an agent icon to show the agent's name, skills, and schedule.
6. Click the icon  beside the agent's name to assign the task to that agent.

Result

If the task can fit within the agent's schedule, the task is assigned to the agent and a confirmation message is displayed.

If the agent's schedule cannot accommodate the task, the system displays a failure message and enables you to select a different agent.

Auto-dispatch a work order task

Automatically match a task to a nearby agent who has the necessary skills and a schedule that can accommodate the task.

Before you begin

Role required: `wm_dispatcher`, `wm_initiator_qualifier_dispatcher`, or `wm_admin`

About this task

Auto-dispatch evaluates an agent's dispatch group, assignment group, location, or skills before assigning a task. If the Territory Planning feature is enabled, then auto-dispatch identifies the list of dispatch groups to select from based on the selected territory before assigning the task to an agent or a crew.

Procedure

1. Navigate to **All > Field Service > Dispatching > My Dispatch Queue**.
2. Open a task.
3. If you need to assign the task to a crew, select the **Needs Crew** check box if it is not already selected.
4. If Field Service Territory Planning is enabled, perform the following steps.

a. Select a Territory.

The list of best matched territories are filtered based on the location of the work order task.

b. Select a Dispatch group.

The list displays the dispatch groups that are associated with the selected territory.

5. Click Auto-Dispatch.

Result

The system assigns the work order task to an agent or a crew who is close to the task location. Closeness is measured based on either the **Distance from task with radius exclusion** task filter or the **Radius exclusion** task filter.

If the system cannot find an appropriate agent, a failure message is displayed. The task stays in the Pending Dispatch state.

If the agent does not accept in a specific time period, the work order task is automatically rejected. The dispatcher can reassign the task to other available agents.

Request additional information from a work order task

Request more details from the qualifier if there is not enough information in the task record to dispatch a work order task.

Before you begin

Role required: `wm_dispatcher`, `wm_initiator_qualifier_dispatcher`, or `wm_admin`

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatch Queue**.
2. Open a work order task in Pending Dispatch state.
3. In the **Work Notes** field, enter a reason for returning the work order task.
4. Click **Request more information**.

Result

The work order task is moved to the Draft state.

The work order is moved to the Awaiting Qualification state. If Field Service Management is configured for automatic qualification, the work order state remains at **Qualified**.

Assigning work order tasks to agents using dynamic scheduling

Dynamic scheduling increases the efficiency of Field Service Management by automatically assigning tasks to the agents.

Dynamic scheduling can run in one of two modes: manually or automatically. For manual operation, dispatchers select a set of tasks and then click Auto Assign to prioritize and assign the tasks. For automatic operation, dispatchers can choose to run dynamic scheduling immediately upon task creation or at a specified interval. Using task filters you can identify some tasks to be assigned manually while others can be set up for auto assignment.

Select and assign multiple tasks

Dispatchers can select multiple tasks on which to run dynamic scheduling.

Before you begin

Role required: wm_dispatcher or wm_admin

About this task

If there has been an update to any of the selected tasks, an informational message notifies the dispatcher to run the recommendations again.

Procedure

1. Navigate to a list of work order tasks.
2. Select the tasks that are pending for dispatch.
3. From the **Actions on selected rows...** menu at the top of the list, select **Auto Assign**.

Note:

If more tasks are selected than dynamic scheduling can handle, a pop-up window displays a message to reduce the number of tasks.

4. Select **Confirm**.

Result

The system considers the time mentioned in the following fields before assigning a task to an agent.

- **Scheduled travel start** and **Scheduled start** when Ignore calculation of travel time for agents to task location based on schedule is enabled.
- **Estimated onsite arrival buffer duration** when Enable/Disable Onsite Arrival Check-in for Agents property is enabled. For more information, see [Global domain configurations](#).
- Agent's start and end locations from the **Agent Schedule Attribute Plans** table for the given day if the Territory Planning plugin is activated. For more information, see [Change start and end locations for agents](#).

The work order tasks are automatically assigned to an agent. If the agent does not accept the tasks in a specific time period, the work order tasks get auto rejected. The dispatcher can reassign the tasks to other available agents.

Confirm Assignment pop-up window

When using the dynamic scheduling feature, the Confirm Assignment pop-up window displays the task assignment recommendations.

When a dispatcher selects multiple tasks for assignment and clicks **Auto Assign**, the results of the task assignment process are displayed in the Confirm Assignment pop-up window. Information about the selected tasks, including the **Short Description**, **Scheduled Start**, and **Estimated End**, is displayed in the following categories.

Dynamic scheduling task states

Category	Definition
Assigned	Dynamic scheduling is able to find a suitable agent and recommends the task for assignment.

Dynamic scheduling task states (continued)

Category	Definition
Unassigned	Dynamic scheduling is not able to find a suitable agent and the task remains unassigned.
Reassigned	Tasks that were previously assigned and have been reassigned to a different agent or time slot to allow for the assignment of the selected tasks.
Not Assigned	Tasks that were previously assigned, have been unassigned to allow for the assignment of the selected tasks, and have not yet been reassigned. Selected tasks that do not match the task filter also appear in the Not Assigned category.

The information icon next to each task displays additional information about the task in a tool tip, such as required skills and parts. For unassigned and reassigned tasks, this information also includes the previous agent and schedule start time.

If more tasks are selected than dynamic scheduling can handle, the pop-up window displays a message to reduce the number of tasks.

If there has been an update to any of the selected tasks, an informational message notifies the dispatcher to run the recommendations again.

Clicking **Save** confirms the task assignment recommendations listed in the Confirm Assignment pop-up window.

Task assignment debug log

System administrators can also view task assignment debug logs in the Confirm Assignment pop-up window by enabling the **com.snc.dynamic.scheduling.showlogs** system property. This information is displayed below each task in the pop-up window. Collapse or expand the debug log by clicking on the task.

Add a default agent work schedule

Add a default agent schedule so that agents have a schedule assigned to them if their work schedule expires.


Before you begin

Role required: `wm_dispatcher`

The `Allow Dynamic Scheduling to only use work schedule/WFO` system property must be set to `false` before adding a default agent work schedule. Contact your administrator to update this system property. For more information, see [Dynamic scheduling system properties](#).

Procedure

1. Navigate to **All > Field Service > Dynamic Scheduling Administration > Configuration**.
2. The **Work Order Task Dynamic Scheduling Config** form opens.

3. Select the Lookup using list icon ().
4. Select a schedule.
5. Select **Update**.

Assigning preferred agents to work on tasks

Preferred agents are agents who are most familiar with the context of tasks they've been assigned and are preferred by customers. For example, they could be agents who work on-site at a customer premise or are associated with the customer contracts or entitlements.

You can assign preferred agents to tasks using dynamic scheduling when you assign tasks using any of the following methods:

- Auto-assign using agent recommendation
- Book an appointment using Appointment Booking

Here are a few scenarios on how tasks can get assigned to preferred agents.

 Note:

The preferred technicians must be added to the respective customer accounts and the preferred technician matching criteria must be added to the dynamic scheduling configuration.

In this example, let's define the roles as follows:

Preferred users and their roles

Role	Name
Customer of Acme Corporation	George Warren
Dispatcher	Lisa Ray
<ul style="list-style-type: none"> • Mona Lisa • Alex Ray • Lynda Caraway 	Preferred technicians for Acme Corporation account

Scenario 1: Auto-assign using agent recommendation

This example shows how tasks that are high priority can get assigned to preferred agents.

 Note:

Lisa Ray is logged in as a dispatcher.

1. Navigate to **Field Service > Dispatching > Dispatcher Workspace**
2. Locate a task for Acme Corporation that must be assigned to a preferred technician. Let's say Mona Lisa is the preferred technician available to work on this task.
3. Drag the task and drop it to Mona Lisa's schedule in the calendar. The task has now been scheduled.

4. Now, a high-priority task from Acme Corporation enters the task queue. This task must be assigned to the same preferred agent Mona Lisa and has to be scheduled at the same time when the previous task was scheduled.
5. Drag the task to Mona Lisa's schedule in the calendar. This task automatically takes the time slot of the previously scheduled task and that task moves to the next available schedule that is available for Mona Lisa.

Scenario 2: Book an appointment using Appointment Booking

This example shows how when a customer books an appointment, it's automatically assigned to the preferred agent.

Note:

George Warren is logged in as a customer of Acme Corporation.

1. Navigate to the customer service portal.
2. Select a service that requires an appointment.
3. Select the desired time slot and select **Select**.
4. Select **Submit**.

Navigate to **Field Service > Dispatching > Dispatcher Workspace** and see that the task has been assigned to the preferred agent Mona Lisa.

For more information on adding a preferred agent to a work order task see, [Assign preferred agents to tasks](#).

Display the task assignment debug log

Display information from the task assignment debug log in the Confirm Assignment pop-up window.

Before you begin

Role required: admin

About this task

System administrators can enable the **com.snc.dynamic.scheduling.showlogs** system property to display debug logs in the Confirm Assignment pop-up window. This information is displayed below each task. Collapse or expand the debug log by clicking on the task.

The task assignment debug log information is stored in the Log [syslog] table.

Procedure

1. Navigate to **All > System Properties > All Properties**.
2. Go to the **com.snc.dynamic.scheduling.showlogs** property.
3. Set the **Value** to **true**.
4. Click **Update**.
The Confirm Assignment pop-up window displays the debug logs for each of the selected tasks. Click the task to collapse or expand this information.

Set agent status from the mobile UI

Field service agents can indicate their status from the mobile UI and let dispatchers know if they are ahead of schedule, behind schedule, or on time.

Before you begin

Role required: wm_agent

Procedure

1. In the mobile UI, navigate to **Field Service > Schedule Status**.
2. Select the desired status in the **On schedule** field.
 - On time
 - Behind schedule, less than 30 minutes
 - Behind schedule, between 30 to 60 minutes
 - Behind schedule, more than an hour
 - Ahead of schedule
3. Click **Save**.

The status is updated on the agent's form. The dispatcher can see this status update in Dispatcher Workspace.

Set agent status from the desktop

Field service agents can indicate their status from the desktop and let dispatchers know if they are ahead of schedule, behind schedule, or on time.

Before you begin

Role required: wm_agent

About this task

The system administrator must enable the FSM Profile view before field service agents can update their schedule status from the desktop.

Procedure

1. Click your user name in the banner frame and then click **Profile**.
2. Select the desired status in the **On schedule** field.
 - On time
 - Behind schedule, less than 30 minutes
 - Behind schedule, between 30 to 60 minutes
 - Behind schedule, more than an hour
 - Ahead of schedule
3. Click **Update**.

The status is updated on the agent's User form. The dispatcher can see this status update in Dispatcher Workspace.

Work order task start and end dates

Dynamic scheduling uses work order task **Window start** and **Window end** dates to schedule tasks.

If both the **Window start** and **Window end** dates are present in the work order tasks, dynamic scheduling uses these dates.

If the task has a **Window start** date but the date has passed, dynamic scheduling uses the current date and time for this value.

If the task has a **Window start** date but no **Window end** date, dynamic scheduling uses the **com.snc.wm.wo.task_window_day** property to determine this value.

If the task has no **Window start** date but has a **Window end** date, dynamic scheduling uses the current time for this value.

If the task has neither a **Window start** nor a **Window end** date, dynamic scheduling uses the current time and date for the **Window start** and the **com.snc.wm.wo.task_window_day** property for the **Window end**.

If a task is created, the **Window end** date gets automatically populated based on the latest SLA breach date from its parent work order. The business rules **Populate Window End Based On SLA** for both Task SLA [task_sla] and Work Order Task [wm_task] tables, and the client script **Calculate Window End** has to be set to **True**.

If a task is created and **Fixed window** is enabled, the business rules and client scripts doesn't execute and **Window end** time is not updated. If a work order is created based on an appointment and there is an SLA associated with the work order, the **Window end** time is populated based on the appointment and not on the SLA.

Window start date gets updated for the work order tasks based on the delivery date of the transfer order only for work orders that are not assigned. The business rule *Sync up Delivery Time with WOT* business rule has to be set to **True**. Multiple transfer orders that has mandatory part requirements, the **Window start** is set to the latest delivery time of the transfer order. **Window start** date is only updated based on transfer orders only when the part requirement associated with the transfer order is mandatory. However, you can manually edit the window start time and override the existing date that is populated based on the transfer order.

Note:

The **Window start** date is not updated if the work order task is:

- Associated with an appointment
- Fixed Window
- Window end is populated and is before the delivery by date

Ignoring travel time of field service agents


You can choose to assign work order tasks to the highest ranked agents without taking into account travel time.

Enabling ignore travel

The Ignore travel option in the work order task enables dynamic scheduling to assign work order tasks automatically to the highest ranked agents. If the highest ranked agent is not available due to time off, the task is assigned to the next highest ranked agent.

Enabling the

com.snc.dynamic.scheduling.ignoreAgentTravelTimeDuringScheduling property displays the Ignore Travel option in work order tasks. For more information about enabling a dynamic scheduling property, see [Properties installed with Field Service Management](#).

The Ignore Travel option does not appear in the work order task form by default so you have to add it manually. For more information, see [Configuring the form layout](#) .

Note the following parameters related to dynamic scheduling when Ignore travel is enabled:

- Double booking must be enabled for the system to assign tasks to the agent automatically.
- If access hours are defined in a work order task, the system ignores the defined access hours limit when auto-assigning that task to agents.

Field Service Management Access Hours Management

With Field Service Management Access Hours Management, you can schedule work order tasks only during the explicitly defined access hours.

Field Service Management Access Hours Management enables you to schedule work order tasks based on the access hours defined in the task. For example, if the access hours mentioned for a work order task are 8 a.m. to 12 p.m., the system takes into account those times while assigning an agent to work on the task. The Access hour feature is enabled for dynamic scheduling. However, administrators or dispatchers can also manually assign work order tasks.

Related topics

[Configuring the auto-population of access hours in a work order task](#)

[Assigning work order task with defined access hours](#)

Assigning work order task with defined access hours

Assign work order tasks either automatically within defined access hours through dynamic scheduling or manually outside those hours.

Dynamic scheduling uses the following filter criteria to schedule the tasks with defined access hours:

- Matching agent availability
- Estimated work duration
- Window start and window end dates
- Access hours

Assigning work order tasks to agents from Dispatcher Workspace

Assigning work order tasks to agents from Dispatcher Workspace.

- [Using Dispatcher Workspace](#)

Dispatcher Workspace is the command center for dispatchers to schedule tasks, view schedules, check on technicians' locations and much more.

- [Bundling work order tasks](#)

Logically group similar tasks into a bundle enables agents to track, start, and complete related tasks at once instead of individually.

Using Dispatcher Workspace

Dispatcher Workspace is a configurable scheduling application that enables you to efficiently route work to field service agents and monitor their performance.

The CSM/FSM Configurable Workspace contains the Dispatcher Dashboard and Dispatcher Workspace.

- The Dispatcher Dashboard is the home page and displays the real-time data of the operations and performance of field service agents across their assignments in your organization such as.
 - Statistics on critical pending dispatch tasks and SLAs breached.
 - Field service agents who are behind the schedule.
 - Instant visibility into the agents' presence status such as On site, Off shift, On Route etc.
 - Dispatch map with the visual indicators for location of the field service agents and work order tasks.
- The Dispatcher Workspace facilitates the following tasks:
 - Schedule and dispatch work order tasks.
 - Apply filters to manage task visibility.
 - Personalize task cards with customized information.
 - View schedules and availability of technicians.
 - Monitor performance metrics of technicians.
 - View the locations of tasks and agents on the dispatch map.

The following table provides an overview of the dispatcher's tasks in the Dispatcher Workspace.

Dispatcher tasks

Task	Description
Customize information on task cards and agent cards	Customize the fields to appear on the task and agent cards in the Dispatcher Workspace.
Flag a work order task	Flag tasks that you want to work on at a later time.
Search work order tasks	Search the tasks in the Dispatcher Workspace task panel.
Manage work order tasks	Manage work order tasks from Dispatcher Workspace, Dispatch map, and Task map. Track and monitor the real-time state of work order tasks. You can auto-assign tasks, record time, request more information, and cancel the work order task.
Managing agent calendar	Customer service agents and field service technicians can view and manage work schedules, assignments, and personal events in the agent calendar.
Viewing agents and tasks in the Dispatcher Workspace map	View tasks and agents in the field using geolocation data in the dispatch map.
Viewing an agent's calendar	View an agent's schedule, availability, personal events, and assigned or in-progress tasks
Viewing an agent's calendar	View SLA record for all the work order tasks that are associated with work orders that have SLAs.
Show and optimize the agent task	View an agent's scheduled task route on the dispatch map and optimizing task routes for efficient schedule and task management

Dispatcher tasks (continued)

Task	Description
route in Dispatcher Workspace	
Use Workforce Optimization for Field Service	View the agent's schedule and events from the Workforce Optimization for Field Service application and assign work order tasks accordingly.
Manage appointments	Manage customer appointments from work order task forms
Manage crew operations	Create and manage crews, assign crews to work order tasks, and adding ad hoc agents to a crew
Intelligent Task Recommendation	Improve agent utilization through intelligent task recommendations

Related topics

[Configuring Dispatcher Workspace](#)

[Dispatcher Workspace](#)

Customize information on task cards and agent cards

Customize the fields that appear on the task cards and agent cards to display certain information in Dispatcher Workspace.



Before you begin

Role required: wm_dispatcher

About this task

On the task cards and agent cards, the administrator has to configure what fields are available for you to customize.

Procedure

1. Navigate to **Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. Customize the information to be presented on the card.
 - For task cards, click Settings icon () and then select the **Tasks** tab.
 - For agent cards, click Settings icon () and then select the **Resources** tab.
4. Enable or disable the fields in the Settings dialog box.
For more information, see [Enable Dispatcher Workspace settings](#).
5. Click **Save**.

Result

The card reflects the selected fields.

Enable Dispatcher Workspace settings

Determine what is displayed in the Dispatcher Workspace so you only see the information most relevant to your work.


Before you begin

Role required: wm_dispatcher

About this task

Quick settings in Dispatcher Workspace provide access to certain capabilities of Field Service Management while assigning the work order tasks.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace.**
2. Select the Dispatcher Workspace.
3. Click the Settings icon ().
The options on the Settings dialog box are arranged in a multiple-tabbed layout.
 - The **General** tab contains options for setting up the general Field Service Management configurations.
 - The **Tasks** tab contains options for enabling the fields or information to show in the task card.
 - The **Calendar** tab contains options for enabling the fields or information to show in the calendar.
 - The **Resources** tab contains options for enabling the fields or information to show in the agent card or calendar view.
 - The **Events** tab contains options for enabling the fields to show in a calendar event.
 - The **Metrics** tab contains options for enabling group or agent metrics. Group metrics are displayed in the schedule. Agent metrics are displayed in the contextual side panel.
4. Fill in the fields on the **General** tab.

General tab

Field	Description
Enable tasks in the task panel, schedule, and map to filter at the same time when an assignment group is selected	Option to synchronize the resource filter with the task panel, tasks, and map for selected assignment groups.
Select the type of group you want to show	Option to choose if you want to see Assignment groups or Dispatch groups when you search in the task panel.
Enable Auto-refresh	Automatically refreshes the agent's calendar when a work order task is updated, or an event such as a meeting, training, time-off request, personal, or an ad hoc work event is created. Note: This option appears only when the Enable Auto-refresh system property is enabled. For more information, see Configure settings for Dispatcher Workspace.
Enable map dark mode	Option to enable dark mode on the Dispatcher Workspace map.

Field	Description
Enable single-select groups / territories	Allows only one assignment group, dispatch group, or territory to load when selecting them in the task panel.
Groups	<p>Enter the default groups to you want selected when you open the</p> <p>Note: If you have the Territory Planning plugin installed, then the Groups tab becomes the Territories tab. Enter the default territories to you want selected when you open the Dispatcher Workspace.</p>

5. Click the **Tasks** tab and fill in the fields.

Tasks tab

Field	Description
Scheduled start	Option to display the scheduled start date and start time of the task.
Territory	<p>Option to display the assigned territory.</p> <p>Note: This field appears when the Territory Planning plugin is activated. For more information, see Activate Field Service Territory Planning and Enable the Field Service territory model.</p>
Assignment group	Option to display the assignment group of the task.
Default Location	<p>Option to display the default location of the field service agent.</p> <p>Note: This field appears when the Territory Planning plugin is activated.</p>
Timezone	Shows the time zones tasks are located in on the task card.
Select where you want new tasks to be loaded	<p>Important: You must enable Notify me of new tasks before adding them to the list in order for this setting to work.</p> <p>Option to select where new tasks should be added to the task list. You must have Enable auto-refresh turned on to use this setting.</p>

Field	Description
Notify me of new tasks before adding them to the list	<p>i Important: You must enable this setting before you can Select where you want new tasks to be loaded.</p> <p>Option to show a notification at the top of the task list when a new task is added to the task list. You must have Enable auto-refresh turned on to use this setting.</p>

6. Click the **Calendar** tab and fill in the fields.

Calendar tab

Field	Description
Default calendar view	Default view of Dispatcher Workspace calendar in days, work day, or week.
Default start day of the week	Option to change the calendar start day of the week when in week view.
Default calendar display days	Option to update the number of days per week that show on the Dispatcher Workspace calendar. i Note: When this is enabled, a Flexible days option is available to choose when you select Day, Work day, or Week .
Start of day time	Option to choose the hour that the work day starts on.
End of day time	Option to choose the hour that the work day ends on.
Intervals of time to show	The amount of time that each column in the Dispatcher Workspace calendar represents.
Drag and drop unassigned tasks on top of already scheduled tasks on the calendar	Determine how overlapping tasks are assigned. You can also adjust how often the overlapping tasks pop-up window appears.
Show task Window-start on task selection	Option to display the assignment window expiration date and time when a task is selected.
Automatically load resources	Option to load more agents or crews while scrolling down Dispatcher Workspace.
Schedule based on travel start time	Enables tasks assigned from the task panel to start based on an agent's travel time.
Automatically adjust overlapping tasks	Option to reschedule an existing task after a new task is assigned where an existing task is scheduled. When dragging a new task over

Field	Description
	<p>an existing tasks, this shifts existing task to the right of the new task.</p> <p>Note: If Field Service Task Bundling plugin is installed, dragging bundles will also shift existing tasks, and existing bundles will shift when overlapped.</p>
Select time zones for calendar	Entry to choose what time zones are available from the time zone drop-down on the Schedule and Hybrid views of dispatcher workspace. You can choose one or more.

7. Click the **Resources** tab and fill in the fields.

Note:
Disable Available Parts, Matching skills, and Distance to Task to prevent Dispatcher Workspace from reloading each time a new task is selected.

Resources tab

Field	Description
Territory	Option to display the assigned territory. For more information, see Activate Field Service Territory Planning and Enable the Field Service territory model .
Groups	Option to display the dispatch group or assignment group of an agent in the agent card.
Location	Option to display the location of an agent in the agent card.
Available Parts	Option to determine if the parts are available with the agent.
Matching Skills	Option to determine if agent has the matching skills.
Agent Status	Option to determine the status of the agent, such as on site, off shift, and so on.
Schedule Status	Option to determine the schedule status of the agent, such as on time, behind, and so on.
Distance to Task	Option to determine the distance to task locations based on the route taken by the agent.
Timezone	Shows the time zones agents are located in on the agent card.

Field	Description
Distance to Unit	Unit of measurement used when calculating the distance to task locations, either miles or kilometers.
Crew size	The number of members in the crew. Note: Crews must be enabled to see this setting.
View crew membership by schedule	When enabled, a yellow line shows on the calendar indicating the agent is working with a crew at that time. Note: Crews must be enabled to see this setting.
Operational status	Current status of the equipment. For example, a bucket truck is Unavailable because there is maintenance being completed on it. The available values are: <ul style="list-style-type: none"> ○ Available ○ In Use ○ Unavailable Note: Equipment must be enabled to see this setting.
Category	Name of the category for the equipment. Note: Equipment must be enabled to see this setting.

8. Click the **Events** tab and fill in the fields.

Events tab

Field	Description
Short description	Option to display the short description of work order task in the task card.
Number	Option to display the work order task number in the calendar event card.

Field	Description
Show SLA	Option to display the SLA for the tasks that are already assigned and appear on the calendar view.
Show travel time indicator	Option to display the time taken by the agent to reach the task location.
Show travel home time indicator	Option to display the time taken by the agent to return home from the last task of the day.

9. Select the **Metrics** tab and enable the fields.



Note:

Metrics show N/A if there are no tasks assigned to the agent or assignment group. Assign tasks to agents to see metrics.

Metrics tab

Field	Description
Tasks	The number of tasks the agent or group has to complete.
Work time	The total work time of the agent or group.
Travel time	The total travel time of the agent or group.
Utilization	<p>The percentage of work hours that the agent or group has scheduled tasks for. The utilization value is calculated by adding the work time to the travel time and dividing that by the shift time.</p> <p>Note: This Utilization field appears only when the agent has a set schedule.</p>
Productivity	<p>The percentage of work tasks the agent or group has completed for the day. Productivity is calculated by dividing the work time by the shift time.</p> <p>Note: This field appears only when the agent has a set schedule.</p>

10. Select **Save**.


Flag a work order task

Flag tasks that you want to work on at a later time.

Before you begin

Role required: `wm_dispatcher`

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace.**
2. Click **Dispatcher Workspace.**
3. Click the Flag icon () on the task.

Result

The work order task is flagged and is displayed when you filter the tasks by the option **Flagged Tasks** in the task panel.

Select Assignment groups in Dispatcher Workspace

Select assignment groups in Dispatcher Workspace to quickly see a list of agents in the assignment group.


Before you begin

Role required: wm_dispatcher

About this task

You must have **Enable single select groups / territories** off in settings to select multiple territories. For more information, see [Enable Dispatcher Workspace settings](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace..**
2. Select Dispatcher Workspace.
3. Select **Assignment Groups** .
4. Select the assignment groups that you want to see.
5. Select **Apply**.

Select Territories in Dispatcher Workspace

Quickly select territories to filter resources in Dispatcher Workspace. You can also save default territories to load each time you open Dispatcher Workspace.


Before you begin

Role required: wm_dispatcher

About this task

You must turn off **Enable single select groups / territories** in settings to select multiple territories. For more information, see [Enable Dispatcher Workspace settings](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace..**
2. Select Dispatcher Workspace.
3. Select **Territories** .
4. Select the territories that you want to see.

Territory selection options

Options	Selections
Select the whole territory	Select a parent territory. This selects the parent and all the children in the territory.
Select a whole territory but exclude some children	Select a parent territory, then navigate into the nested structure and select the children you want to remove.
Select multiple territories	Select the parent, or individual child territories one by one.
De-select territories	Select a territory again to deselect it.
Search for a territory	Enter a search for the territory. The search refines the list of territories as you enter. Select Show more after a search to see the other territories in the grouping that don't match the search criteria.

Note:

Selected territories or child territories turn green when they're selected.

5. Optional: Select **Set as default** to load your selection each time you open Dispatcher Workspace.

6. Select **Apply**.

Search work order tasks

Minimize scrolling and filter tasks that show in the task panel. Quickly search by keyword, or see all the tasks assigned to a group or territory.

Before you begin

Role required: wm_dispatcher

About this task

You can search work order tasks using the following criteria:




- Keyword
- Match calendar dates
- Work order task state

You can also filter and sort work order tasks based on the fields that are configured by the administrator.

If you add a work order task number to the work notes of a different work order task, when you search for the work order task number that was added to the work notes both the work order tasks show up. This happens because it is a keyword search that causes both the work order tasks show up. For example if you add WOT123 to the notes of WOT456, then when you search for WOT123, both WOT123 and WOT456 show up.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace.**
2. Select **Dispatcher Workspace.**
3. In the task panel, search for a work order task.

Search criteria	Action
Keyword	<p>Type the search term in the search field and select the Search icon ().</p> <p>Note: To clear the search and display all tasks, delete the search term and press the Enter key.</p>
Calendar dates	<p>Select the Turn on filter tasks by calendar dates () icon to display tasks associated with the calendar dates in addition to the selected filter.</p> <p>Note: The task panel displays tasks based on dates as follows:</p> <ul style="list-style-type: none"> ○ If the window start and window end dates of a task fall within the dates currently shown on the calendar. ○ If the window end field is empty, then the task appears if the calendar is displaying a date beyond the task's window start date. ○ If the window start field is empty, then the task appears if the calendar shows a date before the task's window end date. ○ If both the window start and window end fields are empty, then the task panel's task appears when Match calendar dates are enabled. ○ If the calendar display window is modified, the task panel is updated to display only tasks that match the new date range.
State	<p>Select the filter from the list of default filters. The default fields that appear in the Filter by list are configured by the administrator.</p>
Sort options	<p>Select the Sort icon () to sort tasks. The default sort options that appear are configured by the administrator.</p>

Result

The tasks that meet the search requirements are displayed in the task panel.


Related topics[Search for appropriate Field Service agents](#)[Assign work order tasks to agents](#)**Filter Dispatcher Workspace views**

Filter the map view, hybrid view, and schedule view of Dispatcher Workspace to display only the items that interest you.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher workspace**.
3. Select the Filter icon ().
4. Determine the information that you want to display.
 - To view agent information, select **Agents**.
 - To view contractor group information, select **Contractors**.
 - To view agents, groups, or contractor groups with a specific skill set, select **Skills**.
 - To view agents, groups, or contractor groups with all named skills, select **Match all skills**.

Search for appropriate Field Service agents

Search for agents with specific attributes in Dispatcher Workspace so you can make appropriate assignments.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Search for field service agents or skills.

Result

Field service agents are listed based on the filter criteria. If agents are not available for the time period mentioned in the work order task, a message displays.

Related topics[Assign work order tasks to agents](#)**Refresh Dispatcher Workspace**

Refreshing Dispatcher Workspace reloads resources, work shifts, personal events and work order tasks that are shown on calendar.

Before you begin


Role required: wm_dispatcher

About this task

Refreshing Dispatcher Workspace also resets the expanded groups or territories and loads only the number of resources configured. This is defined in the system property `calendar_resources_page_size`.

Reloading Dispatcher Workspace is important if you want to get latest data without having auto refresh enabled.

Procedure

1. Navigate to **All > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Select the Refresh icon ().
Dispatcher Workspace refreshes.

Agent work and schedule status

View an agent's work status and schedule status as they complete their tasks.

Work status

To evaluate the agent's work status, the system checks the action that the agent takes when updating a task and interprets it as a status.

An agent's work status can be one of the following:

- On route
- On site
- Off shift

For example, when the agent starts travel to a task, the system considers the agent's status as **On route**. When the agent starts to work on a task, the agent's status is updated to **On site**. When an agent closes or cancels a task, the agent's status is updated to **None** in preparation for travel to the next task.

Off shift agent status indicates that the Field Service agent doesn't have any assigned tasks scheduled for the day.

You can view an agent's work status in the contextual side panel that opens when you click the agent's pin in the dispatch map or in an agent's user record. To display agent work status in the user record, navigate to **User Administration > Users** and configure the User form to show the **Work agent status** field. This action puts the status field on all user records.

Schedule status

When you click an agent pin in the dispatch map, the agent profile appears. If a location shows more than one agent, you can select an agent to display their profile. You can view the status of the agent's schedule, which could be any of the following:

- Ahead of schedule
- On time
- Behind schedule, less than 30 minutes
- Behind schedule, between 30 to 60 minutes
- Behind schedule, more than an hour

To display the agent schedule status in the user lists and records, navigate to **User Administration > Users** and configure the User list and form to show the **On schedule** field. This action puts the schedule status field on all user records.

A Field Service Agent’s schedule status is determined when the agent selects start travel on the Mobile Agent Application. The Field Service Agent’s schedule status table below shows what the agent status will be based on when they select start travel.

Field Service Agent’s schedule status

Agent status	When start travel was selected
Ahead of schedule	20 minutes before the scheduled start travel time
On time	Within 3 minutes of the scheduled start travel time
Behind schedule, less than 30 minutes	20 minutes after the scheduled start travel time
Behind schedule, between 30 to 60 minutes	40 minutes after the scheduled start travel time
Behind schedule, more that an hour	70 minutes after the scheduled start travel time

Show or hide off shift agents from the calendar in Dispatcher Workspace

Choose to show only agents that are on shift so it’s easier to view who’s available when you assign work order tasks. You can also choose to show all the agents to see everyone that's on and off shift.

About this task


By default the hide off shift agents icon shows on the calendar in Dispatcher Workspace for up to seven days in the future. Contact your administrator to configure the hide off shift agents button to show for longer than seven days. For more information, see [Change the number of days that dispatchers can hide off shift agents](#).

Contractors, crews, and equipment aren’t hidden with the hide off shift agents button.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher workspace**.
2. Select **Dispatcher Workspace**.
3. Select the **Show or hide off-shift agents** icon ().

Note:

The Show or hide off-shift agents icon turns dark when agents are hidden, and is light when agents aren't hidden.

Change the time zone in Dispatcher Workspace

You can change the time zone that shows on the calendar or hybrid view in Dispatcher Workspace to quickly move between the time zones that your agents are working in.

About this task

When you change the time zone in Dispatcher Workspace, the agent card shows the difference in hours between the time zone you select and the agent's time zone if there's a difference between the two.

Before you begin

Role required: wm_dispatcher

You must have more than one time zone configured. For more information, see the Calendar section in [Enable Dispatcher Workspace settings](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select Dispatcher Workspace.
3. Select the **Calendar**, or **Hybrid** view.
4. Select the time zone drop-down list.
5. Select a time zone.

Result

The time zone that you selected shows in Dispatcher Workspace.

Suggest agents to assign to a work order task

Quickly sort a list of the best agents to assign a work order task based on the criteria that you choose from.


Before you begin

https://player.vimeo.com/video/1041292325?badge=0&autoplay=0&player_id=0&app_id=58479

Role required: wm_dispatcher

Dynamic Scheduling must be enabled in order to use Assignment assistance. For more information see, [Configuring Dynamic Scheduling](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. In the task panel, select the More Actions icon ().
4. Select **Assignment assistance**.
5. **Optional:** Sort the agent list based on the criteria that you want.

Assignment assistance sorting options

Sort option	Description
Best Match	Best match is the default sorting method. Match percentage is calculated the same way that Dynamic Scheduling calculates agents to assign tasks to. For more information, see Matching criteria for assigning tasks .

Sort option	Description
Distance	Sorts agents based on how far each agent is from the work order task.
Skills	Sorts agents based on the number of required skills that each agent has. Agents with more skills are at the top.
Parts	Sorts agents based on how many required parts each agent has. Agents with the most parts to complete the task are at the top.
Earliest start time	Sorts agents based on how quickly they can start the work order task.
Earliest end time	Sorts agents based on how quickly they can complete the work order task.

6. Select the agent for which you want to assign the work order task.
7. Select **Save**.

Assign a work order task

Assign agents to unassigned work order tasks using the Dispatcher Workspace map.

Before you begin

Role required: `wm_dispatcher`, `wm_initiator_qualifier_dispatcher`

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Select **Schedule**.
4. Select **Map** or **Hybrid**.
5. Right-click an unassigned task in the map.
6. Select **Assign**.
7. In the **Assigned to** field, select the agent available to work on the task.
8. Select **Save**.

Result

The customer receives a text message and email notification that the work order task is assigned.

Edit multiple tasks in Dispatcher Workspace

Select and open or bundle multiple tasks with Bulk Actions on Dispatcher Workspace.

Select All

The **Select All** check box selects all tasks on the current panel.



Note:

Changing the filter unselects previously selected cards.

The check box has three states.

1. None selected. No tasks are currently selected. This option is the default state.
2. All selected. All tasks are selected. This option is the initial state upon toggling **Select All**.
3. Indeterminate. Some tasks are selected. After toggling **Select All**, deselecting individual tasks will place the **Select All** check box in this state

Bulk Open

When one or more tasks are selected, the **Bulk Open** action appears. Selecting **Bulk Open** opens all selected tasks as individual tabs in Dispatcher Workspace.

Bulk Auto-assignment

When one or more tasks are selected, the **Auto-assignment** action is enabled. Selecting **Auto-assignment** will dynamically schedule all selected tasks. For more information, see [Dynamic scheduling](#).

Bundle

When two or more tasks are selected, the **Bundle** action appears. Selecting **Bundle** creates a bundle of the selected tasks. For more information, see [Bundling work order tasks](#)

Note:

If the Dynamic Scheduling plugin (com.snc.dynamic_scheduling) and Field Service Task Bundling plugin (com.snc.fsm_task_bundle) are both enabled, the **Auto-assignment** and **Bulk Open** actions are consolidated into a drop-down menu.

Update multiple work order tasks simultaneously

Save time and update multiple work order tasks at once in the calendar in Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. On the calendar in Dispatcher Workspace press Shift or Command on your keyboard while you select multiple tasks.

Note:

Tasks must be in the assigned or scheduled state to be selected.

4. Select the Overflow actions icon () in the contextual side panel.

5. Select the action to perform on the tasks:

- Open record
- Unassign all
- Lock all
- Unlock all
- Deselect all

Manage work order tasks

Track and monitor the real-time state of work order tasks. You can auto-assign tasks, record time, request more information, and cancel the work order task.

Assign work order tasks to agents

Assign a work order task to a field service agent from Dispatcher Workspace.

Before you begin

Role required: `wm_dispatcher`

If the time required to complete the task needs multiple schedule entries or days, select the **Assign across the schedule entries** option in the work order task form.

If the task is assigned to an agent in the territory that best match its location then you must enable the following options:

- The Field Service territory model, *Field_Service_Territories*. For more information, see [Enable the Field Service territory model](#).
- **Territory** option in Dispatcher Workspace to view the territory information in the task card and the agent card. For more information, see [Enable Dispatcher Workspace settings](#).

If the task assignment method needs to respect the workforce optimized shift schedules then you must enable the **Enable Shift Scheduling for FSM to Determine Availability** configuration to activate the Workforce Optimization for Field Service data model. For more information, see [Activate Workforce Optimization for Field Service](#).

i Note:

If the **Enable Shift Scheduling for FSM to Determine Availability** configuration is enabled, the Dispatcher Workspace calendar displays the schedules and events created in Workforce Optimization for Field Service application.

About this task

You can assign work order tasks that are in pending to dispatch either manually or automatically in the Dispatcher Workspace.

- To assign work order tasks automatically, you must enable dynamic scheduling. The auto-assign capability automatically matches a task to a nearby agent who has the necessary skills and a schedule that can accommodate the task. For more information, see [Setting up dynamic scheduling in Dispatcher Workspace](#).
- To assign work order tasks manually, consider the following aspects:
 - The length of time required to complete a task
 - The window of time in which a task must be completed
 - The schedule and availability of agents with the necessary skill sets
 - The availability of agents with required skill sets if configured
 - The availability of required parts
 - The impact on other tasks
 - The agent task route map

If an agent is part of more than one assignment group or territory, then dispatchers will see the agent on more than one line on the calendar in Dispatcher Workspace. To change the agent's schedule, the dispatcher must make changes on the line that corresponds with the assignment group or territory they manage.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.

Note:

You can sort, filter, and also match the work order tasks based on the calendar dates before assigning field service agents. For more information, see [Search work order tasks](#) and [Search for appropriate Field Service agents](#).

3. Assign the work order task to agents.

Result

The task is assigned to an agent. The following then happens:

- The task is displayed on the calendar next to the agent's name. The work order task color appears in the color as defined for assigned tasks.
- The **Assigned to** field in the work order task contains the agent's name.
- If a task is assigned to an agent, the system updates the estimated travel duration based on the agent's home location. The updated value is based on the *Manual Assignment* property setting used for calculating estimated travel time and distance.

There can be issues with the task assignment, such as the following:

- If the assigned task is outside the acceptable radius between the task location and the agent's location, a warning message appears.
- If the agent doesn't accept in a specific time period, the work order task is automatically rejected. The dispatcher can reassign the task to other available agents.

Assign work order tasks to agents using Intelligent Task Recommendation

As a dispatcher, you can recommend the best available tasks to fill gaps in an agent's schedule.

Before you begin

Role required: `wm_dispatcher`

Ensure the Field Service Intelligent Task Recommendation plugin is activated. For more information, see [Activate Intelligent Task Recommendation](#).

About this task

The Intelligent Task Recommendation feature identifies and recommends the best available tasks for agents based on the selected start time and end time based on the following.

- Excludes the work order tasks that are schedule locked.
- Considers the agent's start and end locations from the **Agent Schedule Attribute Plans** table for the given day if the Territory Planning plugin is activated.
- Integrates agent's schedule and events from the Workforce Optimization for Field Service application if the **Enable Shift Scheduling for FSM to Determine Availability** configuration is enabled. For more information, see [Global domain configurations](#) and [Activate Workforce Optimization for Field Service](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.

3. In the calendar, select a date to view an agent's schedule for that day.
4. Select the white space that indicates the gap in the agent's calendar.
The Recommended tasks dialog box displays the maximum five best available tasks for the agent. The tasks are arranged in descending order based on their recommendation score.
5. From the Recommended tasks list, select the task that you want to assign to the agent.
6. Click **Assign**.

Result

The recommended task is assigned to the agent. The agent receives a push notification that the work order task has been assigned.

Record time spent on a task

Record the duration for executing a task using the Dispatcher Workspace application.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click a task number from the task panel or calendar.
3. Click **Record Time**.
4. In the **User** field, select an agent for whom you want to record time.
5. Enter the time worked.

Field	Description
Days	Number of days worked on the task.
Time Worked (Hours)	Number of hours worked on the task.
Time Worked (Minutes)	Number of minutes worked on the task.

6. **Optional:** In the Comments field, enter any additional notes about the task.
7. Click **Save**.

Result

The time card is automatically created for the user.

Cancel a work order task in Dispatcher Workspace

Cancel a work order task in Dispatcher Workspace if it is no longer necessary or is a duplicate of another work order task.

Before you begin

Role required: wm_dispatcher

About this task

Work orders and work order tasks cannot be canceled that are in the **Closed Complete** or **Closed Incomplete** state.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click a task number from the task panel or calendar panel.
3. Click **Cancel Task**.
4. In the **Work notes** field, enter a cancellation reason.
An error message appears if text is not entered.

Result

The customer receives an SMS and email notification that the work order task is canceled.

Suspend the parent work order of a task

Suspend the parent work order of a task to stop displaying active SLAs for the task, including the time remaining, the SLA state, and any breaches.

Before you begin

Role required: wm_dispatcher.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click a task number from the task panel or calendar panel.
3. Click **Suspend Parent**.
4. In the **Work notes** field, enter the reason to suspend.
An error message appears if text is not entered.
5. Click **Post Work notes**.

Result

The parent work order of the task is suspended.

Assign work order task to an outsourced service provider in Dispatcher Workspace

Assign work order tasks directly to the outsourced service providers (also called contractor companies) from an external assignment group using Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

- Activate the Field Service Contractor Management (com.snc.fsm_contractor_management) plugin.
- Add external vendor assignment groups to the dispatch group. For more information, see [Add external assignment groups to the dispatch group](#).

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. Click a task from the task panel and drag it to the calendar slot of an outsourced service provider in the Contractor groups.

Example

Acme Services

The Assignment confirmation dialog box is displayed.

4. Click **Save**.

Result

- The task is displayed on the calendar next to the outsourced service provider's name.
- The task is assigned to the manager of the outsourced service provider.
- The calendar view of the outsourced service provider displays the capacity utilization information in percentage and definition. For example, if company's defined capacity is five tasks and so far only two tasks are assigned to the company, the capacity utilization data displays that 40% capacity has been utilized and 2 out of 5 tasks have been assigned to the company. For more information about capacity reservation rules, see [Capacity and Reservations Management](#).
- If the tasks assigned to the outsourced service provider is more than its defined capacity, a red vertical bar displays on the calendar, indicating over-allocation of tasks.

Viewing agents and tasks in the Dispatcher Workspace map

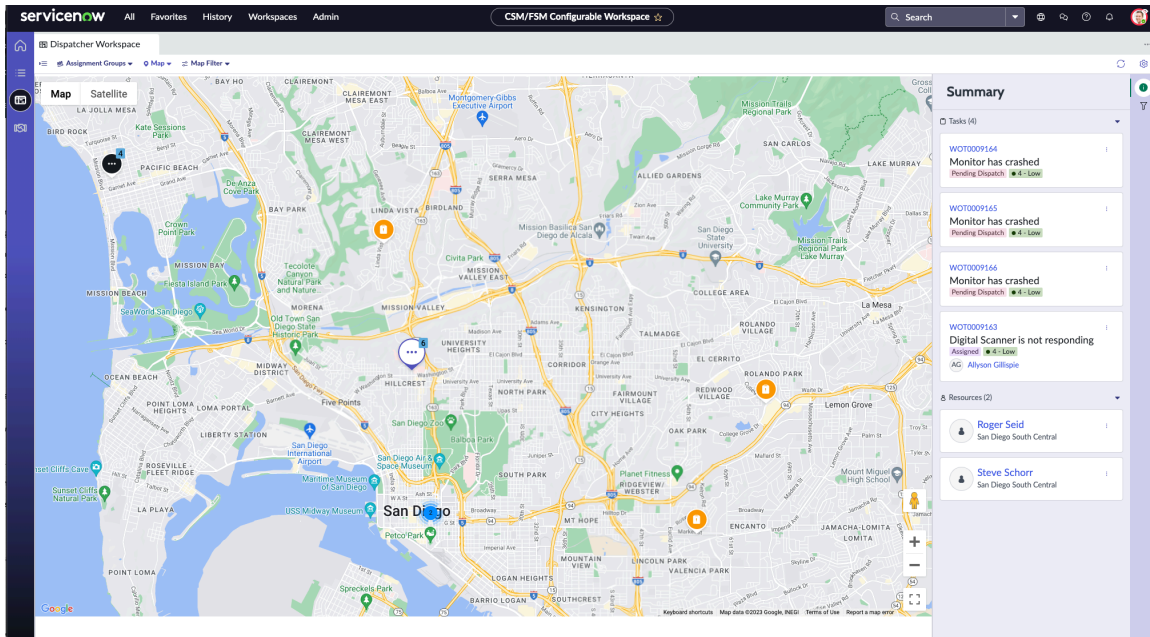
You can use the Dispatcher Workspace map to track, manage, and analyze agent assignments and work order tasks in specific locations. The map is found in the Dispatcher Dashboard and Dispatcher Workspace.

You can manage tasks and routing from the map, filter the view, and determine which agents are on time or behind schedule. The Dispatcher Workspace map uses geolocation data to display tasks and agents in field locations. When you select a map pin in the Dispatcher Workspace map, the record for that task or agent shows in the contextual side panel. The map pins serve as quick access points.

- The Dispatcher Workspace map view centers based on the map pin clusters. Map pin clusters group the map pins near one another into a single cluster. You can zoom in, zoom out, and view the map in full screen. Select the map cluster to zoom the map to show the map markers of work order tasks and agents.
- Map pins in the Dispatcher Workspace map mark the location of tasks and agents in the dispatcher's area. The icons serve as access points to corresponding records. Unique task pins are displayed based on the state of the work order task.
- Map pins corresponding to a single task or agent show in the contextual side panel with scheduling information.
- The map shows individual markers, not every task on the map. This is important because multiple tasks or agents might be at a single location, but only indicated by a single map marker.
- In order to optimize performance, the map only renders current tasks that are loaded on the calendar, not every single task that's available. You can change this setting so that more tasks are loaded on the page, which will cause more markers to show on the map. For more information, see [Determine the tasks to appear in the task panel](#).
- If you want to change each cluster to show the total count of tasks and agents, see the `sn_fsm_disp_wrkspc.dispatcher_workspace.cluster_label` property here: [Configure the appearance of the map in Dispatcher Workspace](#).
- If an agent has a closed task today or a work in progress task, then the map pin shows the agent at the task location of whichever is latest: the task work end time for a closed task, or task work start time for a work in progress task. Otherwise, the map pin will show the agent's location in user record (the default location).

Note:

The map can load at most 2000 records from the task panel and the scheduler. When more than 2000 records, the map displays a message to refine the query to ensure that all records are displayed on the map.



Related topics

[Execute a task from the agent map](#)

Run optimization for your groups or territories from Dispatcher Workspace

Reassign tasks and maximize productivity by running Schedule Optimization on demand when scheduling conditions change.

Before you begin

- Schedule Optimization must be activated. For more information, see [Activate Schedule Optimization](#).
- Intraday optimization must be configured. For more information, see [Configure intraday optimization](#).

Role required: schedule_optimization_user

About this task

Schedule Optimization can be configured to run the optimization engine in batches overnight or at selected intervals throughout the day. This procedure describes how dispatchers can run optimization on demand from Dispatcher Workspace.

For more information on running the optimization engine automatically, see [Configuring Schedule Optimization](#).

Schedule Optimization considers the agent's start and end locations from the **Agent Schedule Attribute Plans** table for the given day when the Territory Planning plugin is activated. For more information, see [Activate Field Service Territory Planning](#).

Schedule Optimization doesn't detect changes you make to agents or tasks during an optimization run. The system considers changes to agents and tasks during the next optimization run. While an on-demand run is in progress, all scheduled runs will be paused. The pause will remain in effect until the end of the day, and the scheduled runs will resume the next day.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher workspace** in the left navigation.
3. Select **Optimization summary** in the contextual side panel.
4. **Optional:** Select the pencil icon to edit the policy you want to use to run optimization.
5. Select **Run optimization**.
6. **Optional:** Select **Pause scheduled runs** to schedule tasks manually.

Note:

Schedule Optimization data doesn't auto-refresh. Enable auto-refresh in the settings.

Related topics

[Configure on demand optimization](#)


Limit the Dispatcher Workspace map display to tasks or agents

Reduce the number of pins displayed on the map in dispatcher workspace by displaying either tasks or agents.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher workspace** in the left navigation.
3. Select **Schedule** (the default view name) and choose the main display from the drop-down list.
 - Show only the map by selecting **Map**.
 - Show both the map and the schedule by selecting **Hybrid**.
 - Show the schedule by selecting **Schedule**.
4. Select **Map Filter** and select whether only agents or only tasks appear in the dispatch map.
 - To display only agents, select **Agents**.
 - To display only tasks, select **Tasks**.
5. **Optional:** Display both agents and tasks on the map again by selecting the Refresh icon ().

Viewing an agent's calendar

You can view an agent's schedule, availability, personal events, and tasks that are either assigned or work in progress.

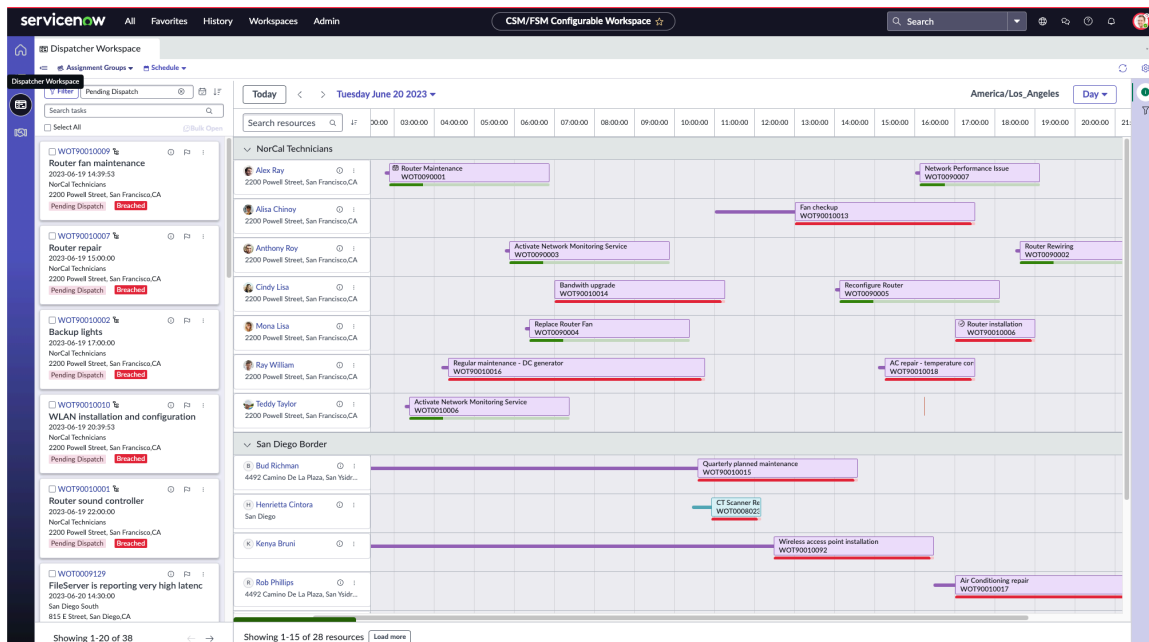
The calendar displays agent information for a selected day, work day, or week. Resource cards are displayed based on membership availability within the calendar window. The resource card shows on the left side of the calendar in Dispatcher Workspace. Resource cards contain information about the resource that belongs to a certain group. If the date falls within the specified range, the agent resource card is shown. The tasks that are assigned to an agent appear in the agent's calendar slots. A horizontal line that appears on the left side of a task can indicate either of the following information:

- Estimated travel start time that includes Estimated onsite arrival buffer duration
- Actual travel start time

- Scheduled work start time
- Actual work start time

Note:

No visual indicator appears for the tasks that don't have a specified travel start time. Additionally, **Estimated onsite arrival buffer duration** is considered only when Enable / Disable Onsite Arrival Check-in for Agents property is enabled and have been added to the task card. For more information, see [Global domain configurations](#).



As a dispatcher, you can do the following:

- Set defaults for the resource filters by checking the **Save as default view** and selecting **Apply**. This over-writes the existing selections and retains your new resource selections even after a session ends.

Note:

Selections are retained only if you save them as the default view. Unsaved selections are erased after the session ends.

- View the last saved defaults by selecting the **Restore default**. This option is visible only if your new selections are different from the default selections.
- Use the territory filter icon to assign tasks to agents based on their skills, availability, and geographic locations.
- Use the task number to view the task SLA in the task panel or calendar. The task appears in the agent's calendar slot.
- Use the more actions icon and select **Remove all time gaps** to rearrange a schedule so tasks happen back to back. Any required timing between tasks is honored.
- View the task SLA details in the task SLA record, such as the stage of the task SLA and whether the SLA has been breached. SLA details show on the task card in the task panel and the calendar. The number on the card in the task panel is the amount of time remaining before the SLA is breached. The horizontal line that appears under the task in the calendar view is a task bar. The bar and the number in the task panel, indicate the stage of task SLA with different colors based on the following SLA durations:

SLA duration	Bar color
Below 50%	Green
In-between 50% and 75%	Yellow
In-between 75% and 100%	Orange
Above 100% (breached)	Red
Paused	Gray

Show and optimize the agent task route in Dispatcher Workspace

View agent records, agent schedules, and view or optimize the scheduled task route of an agent for that day. You can help them manage their schedules and tasks more efficiently.

Before you begin

You must enable the `sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.route_enabled` system property to display the Route icon in your dispatcher workspace.

You must select the `work.management.optimization.conflict_handling` system property to avoid conflicts due to overflow tasks when optimizing the route. For more information, see [Properties installed with Field Service Management](#).

Role required: `wm_dispatcher` and `wm_manager`

About this task

In the Dispatcher Workspace, you can view the routes of all the tasks for a single or multiple agents for that day by using the route feature. Routes show agent's completed route, future route, and the route that they take back to their home location after the tasks are complete.

You can also optimize the task route for an agent to reorder the tasks as efficiently as possible. The route optimization feature considers the following attributes when reordering the agent tasks for the day:

- Respects the agent personal time-off and reroutes the tasks before or after the break.
- Doesn't reorder the work order tasks that are scheduled lock.
- Controls the scheduling of overflow tasks to avoid conflicts by selecting any one of the behavioral methods, such as stop route optimization, unassign overflow tasks, or adjust the overflow task by assigning it toward the end of the agent's schedule.
- Considers the agent's start of the day and end of the day locations from the **Agent Schedule Attribute Plans** table for the given day if the Territory Planning plugin is activated. For more information, see [Activate Field Service Territory Planning](#).

i Note:

If your organization uses schedule attribute plans with territories and your agents have a temporary home location set, then the temporary home location will show for the duration on the map in Dispatcher Workspace. For more information, see [Change start and end locations for agents](#).

Procedure

1. Navigate to **Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.

3. **Optional:** Search for a field service agent whose route you want to view.
For more information, see [Search for appropriate Field Service agents](#).
4. Select **Map** or **Hybrid** from the **Schedule** drop-down list.
5. Right-click on an agent pin and do one of the following:
 - **Show/ hide route-** shows the route if the route is hidden, hides the route if the route is shown.

Note:

If you're showing a route then you'll also see the agent's completed route. Completed routes are lighter in color, only show as straight-line, and don't necessarily match the exact route the agent actually took.

- **Optimize route-** opens the route optimization window. In the Optimize Route dialog box, select **Optimize**.

If you chose **Optimize route**, then the following happens:

The tasks are rearranged based on the route sequence.

The Optimize Route dialog box displays the compared details of the new and old routes, such as map visualization, driving time, driving distance, and number of tasks. The new route is displayed in blue, while and the old route is grayed out.

The overflow tasks are managed based on the selected route optimization behavior.

6. **Optional:** To clear the agent route from the map, select **Hide all routes** in the map view.

Using Dispatcher Workspace for crew operations

Use the Dispatcher Workspace to create, modify, and enable crews and assign work order tasks to the crews.

As a dispatcher, you can use Dispatcher Workspace to perform the following activities:

- Create or modify crews
- Assign members to the crew
- Filter and view tasks in the task panel that need a crew
- Sort crews based on the distance and skills for the tasks that need a crew.

Note:

The drag and drop feature is not enabled for the tasks requiring a crew.

Create crews

As a dispatcher, you can create crews in Dispatcher Workspace to which you can assign work order tasks.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service Management > Dispatching > Dispatcher Workspace**.
2. Click the **List** icon ()

3. In the Lists panel, navigate to **Dispatching > My Crews**

4. Click **New**.

Create New Crew form

Field	Description
Name	Name of the crew.
Description	Description of the crew.
Leader	Name of the crew leader.
Size	Total number of agents, including the leader, in the crew.
Effective start	Start date from when the crew and its associated members, such as leader and other crew members are active.
Effective end	End date until when the crew and its associated members, such as leader and other crew members are active.
Schedule	Working hours of the crew.
Location	Location of the crew.
Maximum Travel Radius	Radius in selected distance unit (miles or kilometers).
Distance Unit	Unit of distance covered in miles or kilometers.
Active	Option to indicate whether the crew is available for selection when assigning to a work order task.

5. Click **Save**.

Result

The crew is created along with the related list records, such as Details, Groups, Skills, and Task Assignees.

Create ad hoc crews in Dispatcher Workspace

Create ad hoc crews for a task if no existing crews are available to work on the task or the task requires specific skills to complete the job.

Before you begin

Role required: wm_dispatcher

About this task

The Create Crew option is available in the work order task form if the following conditions are met:

- The task is in the Pending Dispatch state.
- **Dispatch Group** is selected.
- The **Needs Crew** option is active.
- Task is scheduled for the present date or future dates.

Note:

You can create only one crew for a work order task. If you try creating another crew for a task, the system redirects you to the existing crew.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. Search for and open a work order task for which you want to create a crew.
For more information, see [Search for tasks that need a crew on Dispatcher Workspace](#).
4. Click **Create Crew**.
5. On the form, fill the fields.

Create New Crew form

Field	Description
Name	Name of the crew. This field is auto-populated based on the work order task for which an ad hoc crew is created. For example, WOT9001007 Crew.
Description	Description for the crew. This field is auto-populated with a default text message, for example, "Crew to work on WOT9001007."
Leader	Name of the crew leader.
Size	Read-only field. The value of this field is reference from the crew membership table.
Initiated From	The work order task number for which you are creating a crew. This field is auto-populated with the work order task number for which an ad hoc crew is created. For example, WOT9001007.
Schedule	Read-only field. Working hours of the crew. The value of this field is reference from the Schedule travel start and Estimated end fields in the work order task.
Location	Location of the crew.
Maximum Travel Radius	Radius in selected distance unit (miles or kilometers).
Distance Unit	Unit of distance covered in miles or kilometers.

Field	Description
Active	Option to indicate whether the crew is available for selection when assigning a work order task.

6. Click **Save**.

Result

An ad hoc task-specific crew is created along with the related list records, such as Details, Groups, Skills, and Task Assignees.

Create quick crews in Dispatcher Workspace

Create planned or ad hoc crews faster and more efficiently using a single interface in Dispatcher Workspace. This helps dispatchers to view the agent schedule and availability while creating crews and adding crew members.



Before you begin

Role required: wm_dispatcher and wm_crew_moderator

About this task

When creating a crew, you can simultaneously view the availability of agents and crews without losing the context of a calendar in Dispatcher Workspace.

Procedure

1. Navigate to **All > Field Service Management > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace** in the left navigation.
3. Create a regular crew or an ad hoc (task-specific) crew.
 - To create a crew, select the Crew icon () in the right panel of Dispatcher Workspace.
 - To create ad hoc (task-specific) crew for a work order task that is in pending dispatch state, select the More actions icon () in the task card and then select **Create Crew**.
4. On the form, fill in the fields.

Create Crew form

Field	Description
Details	
Initiated from	Work order task number for which the crew is being created. This field is automatically set to the work order task number if you're creating a task-specific crew.
Name	Name of the crew. This field is automatically set to the work order task number that is displayed in the Initiated from field. For example, WOT9001007 Crew.

Field	Description
	Note: You must enter a name to create a planned crew.
Leader	Name of the crew leader.
Size	The number of agents needed in the crew.
Location	Location of the crew is based on the selected assignment group in the work order task.
Effective start	Start date from when the crew is active to work on the task.
Effective end	End date until when the crew is active to work on the task.

5. Select Next.

The crew is created.

6. Add crew members.

- a. In the Members section of the crew pane, click in the **Members** field.
- b. Select the names of members to add to the crew from the list.

7. Optional: Add equipment to the crew.

- a. In the Equipment pane of the crew listing, click in the **Equipment** field.
- b. Select the equipment items to assign to the crew.

8. Select Update.

Viewing crews in the Dispatcher Workspace calendar

You can view the crew's schedule, availability, and tasks that are assigned to the crew or their work in progress.

In Dispatcher Workspace, the calendar displays crew information for a selected day, work day, or week. The tasks that are assigned to a crew appear in the crew's calendar slots. A horizontal line that appears on the left side of a task can indicate the following information:

- Estimated travel start time
- Actual travel start time

Note:

No visual indicator appears for tasks that don't have a specified travel start time.

Search for crews on Dispatcher Workspace

Search for crews with specific attributes on Dispatcher Workspace so you can make appropriate assignments.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. Type the search term in the **Search resources** field and click the Search icon ().

Result

A list of crews appears based on the filter criteria. If crews are not available for the selected time period, a message displays.

Update crew requirements for the work order task in Dispatcher Workspace

As a dispatcher, you can add or update the number of agents required to perform a particular type of work to complete the task.

Before you begin


Ensure that the **Needs Crew** check box is selected in the work order task.

Role required: wm_admin, wm_dispatcher

About this task

The default minimum crew size is two for work order tasks created using the work order template with the **Needs Crew** option set to true.

Procedure

1. Navigate to **All > Field Service Management > Dispatching > Dispatcher Workspace**.
2. Click the **List** icon ().
3. In the Lists panel, navigate to **Work Order Tasks > My Work Order Tasks**.
4. Open a work order task from the list that is in the Draft or Pending Dispatch state.
5. In the Crew Requirement related list, enter the number of agents needed in the **Minimum Crew Size** and **Recommended Crew Size** fields.

Note:

- The recommended crew size should be equal to or greater than the minimum crew size.
- The minimum crew size should be equal to or greater than two.

6. Click **Save**.

Search for tasks that need a crew on Dispatcher Workspace

Search for work order tasks that require a crew in the Dispatcher Workspace task panel.

Before you begin

Role required: wm_dispatcher

About this task

You can filter and sort work order tasks based on the Crew Tasks filter configured by the administrator.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. In the tasks panel, select **Crew Tasks** from the list.

Result

All tasks that require a crew and are in the Pending Dispatch state are displayed in the task panel.

Identify crews and agents for crew tasks on Dispatcher Workspace

Identify the most eligible crew and agents based on crew skills and distance to assign them to work order tasks that need a crew.

Before you begin

Roles required: wm_dispatcher

About this task

Crews are sorted in alphabetic order by default. Agents are recommended based on the selection criteria defined in the *Agents for crew tasks* filter. For more information, see

[Search for tasks that need a crew on Dispatcher Workspace](#)

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. Search for and select work order tasks that need a crew in the task panel.
For more information, see [Search for tasks that need a crew on Dispatcher Workspace](#).
The agent panel displays the list of crews sorted based on the default sorting criteria.
4. **Optional:** If dynamic scheduling is enabled, view recommended crews and agents based on the required skills, location, and agent availability by selecting **Auto Assign Rules** from the Rank resources list.
The agent panel displays the list of recommended crews and agents sorted based on the defined recommendation criteria.

Note:

(Optional) The agent panel displays a task-specific crew on the top of the list if one has been created for the selected work order task. For more information, see [Create ad hoc task-specific crews](#)

5. Sort the crew list based on distance or skills.
 - To sort crews based on the crew distance from the task, click **Distance**.
 - To sort crews based on the skills mentioned in the task, click **Skills**.

Result

The crews and agents are sorted based on the selected filter criterion.

View crew tasks on Dispatcher Workspace

As a dispatcher, you can view the tasks that require crew and are assigned to a crew.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **Dispatcher Workspace**.
3. Select a date from the calendar to view the crew task that is assigned to the agents who are available on the selected day.
4. Click **Ok**.
The task is displayed on the calendar next to the crew members and additional assignees included for the crew task. The assigned work order task displays the crew avatar.
5. In the Agent panel, search for the crew to which the crew task is assigned.

Result

- The task is displayed on the calendar next to the crew.
- The Assigned Crew field in the work order task contains the crew's name. If the crew leader does not accept in a specific time period, the work order task is rejected. The dispatcher can reassign the task to other available agents.
- If a task is assigned to a crew, the system updates the estimated travel duration based on the crew's start location or previous start location. The updated value is based on the Manual Assignment property setting used for calculating estimated travel time and distance.
- A warning message appears if the assigned task is outside the acceptable radius between the task location and the crew's location.

Assign work order tasks to crews on Dispatcher Workspace

Assign crews to a work order task that requires a crew of agents in Dispatcher Workspace.

Before you begin

If you're scheduling a task across multiple schedule entries or days, a work schedule must have been assigned to the crew. For more information, see [Create a work schedule for agents](#).

Note:

If the crew schedule hasn't been defined and you're auto-assigning a task, the default schedule is used.

If you want to assign work order tasks to crews in the territories that best match their location, you must enable the following options:

- The Field Service territory model, *Field_Service_Territories*. For more information, see [Enable the Field Service territory model](#).
- The **Territory** option in Dispatcher Workspace must be enabled to view the territory information in the task card and the agent card. For more information, see [Enable Dispatcher Workspace settings](#).

Role required: wm_dispatcher

About this task

You can assign tasks that are in the Pending Dispatch state. When assigning and dispatching work order tasks to crews, consider the following aspects:

- **Task completion factors:** Time required for task completion and task deadlines (window start and end dates).
- **Crew assignment considerations:** Crew assignment is based on their schedule and availability, ensuring they possess the necessary skill sets and required parts, with availability aligned to configured skill sets. The length of time required to complete a task

- **Agent skills:** Aligns specific skills needed for the task with those possessed by crew members.
- **Task requirements:** Matches crew capabilities with task demands.

If the Territory Planning plugin is active and Territory Model is enabled, additional factors include:

- **Territorial alignment:** Ensures the crew is located within the territory of the task.
- **Territory Membership:** Agent eligibility for task assignment is determined by their membership in the associated territory.

Task assignment methods:

- 1. Manual Assignment:** The dispatcher selects the best crew for the task, ensuring their effective dates align with the task window start and end dates. The dispatcher also checks agent availability within the crew based on their territory membership dates.
- 2. Dynamic Assignment:** Dynamic Scheduling automatically assigns tasks to crews based on factors like territory alignment, crew availability, agent skills, and task requirements. If a suitable crew exists, it is assigned the task; otherwise, a new crew is created. When the dynamically created crew is assigned for a work order task within a territory, the crew membership is updated and appears in the Crew Membership related list of the territory.

When scheduling tasks for multiple days:

- View the crew schedule for a selected time period in calendar, such as day, work day, week, two weeks, or four weeks. The calendar also displays the assigned task window spanned across multiple days or weeks.
- View the recommended crews for the task using the **Auto Assign Rules** option. For more information, see [Search for appropriate Field Service agents](#).

Procedure

- 1.** Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
- 2.** Select **Dispatcher Workspace**.
- 3.** Search for and open the work order task that you want to assign.
For more information, see [Search for tasks that need a crew on Dispatcher Workspace](#).
- 4.** Select the **Needs Crew** check box if it isn't already selected.
- 5.** If you must schedule work order tasks spanning multiple schedule entries or days, select the **Assign across the schedule entries** check box if it isn't already selected.
- 6.** Assign the crew task.
- 7.** Select **Save**.

Result

The task is assigned to the crew. All crew members receive a push notification that the work order task is assigned. The Task Assignees related list is added to the work order task. The list displays the names of crew members, which include both the leader of the crew and the agents in the crew.

Assign an ad hoc agent to the crew on a work order task

Add ad hoc members to a work order task that requires a crew.

Before you begin

Role required: wm_dispatcher

About this task

You can add ad hoc agents to work on a crew task. These agents join the crew members to work on the task but are not part of the crew.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace.**
2. Click **Dispatcher Workspace.**
3. Open the work order task to which you want to assign ad hoc agents.
4. In the Assignees related list, click **Add.**
5. On the form, fill in the fields.

Create New Task Assignee form

Field	Description
Assignee	Name of the agent you want to add.
Role	Role assigned to the newly added resource. For example, member or leader.

6. Click **Save.**

Result

An ad hoc agent is added to the crew task.

Add Field Service crew members in Dispatcher Workspace

Add agents to the Field Service crew as needed in Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher and wm_crew_moderator


About this task

You can add crew members on the run for undersized crew tasks, such as agent is unavailable for a long time or available members are less than the mentioned crew requirement.

Procedure

1. Navigate to **All > Field Service Management > Dispatching > Dispatcher Workspace.**
2. Click **Dispatcher Workspace.**
3. In the tasks panel, select **Undersized Crew Tasks** from the list.
4. **Optional:** Select the work order task to which you want to assign the agent.
5. **Optional:** Search for a field service agent whom you want to add to the crew.

(Optional) For more information, see [Identify crews and agents for crew tasks on Dispatcher Workspace.](#)

6. In the agent card, click the More actions icon () and select **Add to crew.**
7. On the form, fill in the fields.

Add to crew

Field	Description
Member	Auto-populated name of the agent.
Crew	Name of the Field Service crew to which you want to add a crew member.
Effective from	Start date from when the member is available to work on the task.
Effective to	End date until when the member is available to work on the task.

8. Click **Save**.

9. **Optional:** Repeat steps 3 through 6 to add more members to the crew.

Result

The members are added to the crew.

Add resource requirement for a work order task in Dispatcher Workspace

Add or update the resource requirements for a work order task that requires crew, such as number of agents with specific skills or types of equipment required to work on the task.

Before you begin

- You must select the **Needs crew** and **Resource requirements** options in the work order task.

Note:

The Resource requirements option displays only when the **Needs Crew** option is selected.

- You must activate the Equipment Scheduling plugin (com.snc.fsm_resource_scheduling) to add any equipment related requirement.

Role required: wm_admin, wm_dispatcher

Procedure

- Navigate to **All > Field Service Management > Dispatching > Dispatcher Workspace**.
- Click **Dispatcher Workspace**.
- Open a work order task that is in the Draft or Pending Dispatch state for which you want to configure the resource requirement.
For more information, see [Search for tasks that need a crew on Dispatcher Workspace](#).
- Select the **Resource requirement** option if not already selected, and then click **Save**.
- In the Resource Requirements related list, select **New**.
- On the form, fill in the fields.

Crew Requirement

Fields	Description
Name	Name of the type of resource category. For example, electrician.
Resource type	Type of resource required for the task, either agent or equipment. Note: The equipment option is available only if the Equipment Scheduling plugin (com.snc.fsm_resource_scheduling) is activated.
Minimum quantity	Minimum number of resources required to work on the task.
Recommended quantity	Actual number of resources required to work on the task.
Mandatory skills	Skills that are mandatory to complete a task. For example, wiring.
Skill level	Define a level for the selected skill.
Optional skills	Skills that are optional to complete a task.
Mandatory	Option to identify if the skills are mandatory to complete a task.

7. Click **Save**.

Result

The resource requirement is added to the work order task that requires crew.

Assign required resources to the task-specific crews

Quickly add resources to task-specific crews if you forgot to add an agent or piece of equipment when you created the crew.

Before you begin


Make sure that resource requirements are configured for the work order task before assigning resources to the task-specific crew. For more information, see [Add resource requirement for a work order task in Dispatcher Workspace](#).

The Equipment list is available only if the Equipment Scheduling plugin (com.snc.fsm_resource_scheduling) is activated.

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. In the Schedule, select the Details for (ⓘ) icon on the task-specific crew for which you want to assign resources.

4. Select the Overflow actions icon () in the contextual side panel.
5. Select **Edit crew**.
6. Select the **Members** list, add the required agents.
7. Select the **Equipment** list, add the required equipment.
8. Select **Update**.

Managing ad hoc filters

Create ad hoc filters in Dispatcher Workspace to filter work order tasks with custom criteria.

You can create an ad hoc filters to be either temporary and unique to a working session, or saved for future use.

There are two types of filters.

Filter Types

Types	Description
Temporary Filter	<ul style="list-style-type: none"> • Non-persistent, exists only during the current session. • Only one temporary filter can be in use at a time. Creating a new temporary filter overwrites the current filter.
Saved Filters	<ul style="list-style-type: none"> • Persistent. • Multiple filters can be saved for future use.

Create an ad hoc filter

Create ad hoc filters directly from Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click the **Dispatcher Workspace**.
3. In the drop-down of the filter search field, click **Create New Filter**.
4. Set up the conditions for the filter.
5. **Optional:** To save this filter for future use, click **Save filter**.
 - a. Enter a **Filter Name**.
 - b. Click **Save**.
6. Click **Update**.

Result

The new filter is added to the filter search drop-down.

- If the filter wasn't saved, it is added as **Temporary filter**.
- If the filter was saved, the new filter is added to the drop-down and to **List > Saved Filters > Task Filters**.

Create an ad hoc filter from an existing filter

Create ad hoc filters from existing filters from Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click the **Dispatcher Workspace**.
3. Select a filter from the drop-down of the filter search field.
4. Click **Filter**.
5. Set up the conditions for the filter.
6. **Optional:** To save this filter for future use, click **Save filter**.
 - a. Enter a **Filter Name**.
 - b. Click **Save**.
7. Click **Update**.

Result

The new filter is added to the filter search drop-down.

- If the filter wasn't saved, it's added as **Temporary filter**.
- If the filter was saved, the new filter is added to the drop-down and to **List > Saved Filters > Task Filters**.

Update a saved ad hoc filter

Update ad hoc filters saved in Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **List**.
3. Under **Lists**, navigate to **Saved Filters > Task Filter**.
4. Select a filter.
5. Select and edit the desired fields.
6. Click **Save**.

Result

The saved filter is updated according to the new parameters.


Delete a saved ad hoc filter

Delete ad hoc filters saved in Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **List**.
3. Under **Lists**, navigate to **Saved Filters > Task Filter**.
4. Select a filter.
5. Click the **More Actions** () icon.
6. Click **Delete**.
7. Click **OK**.

Result

The filter is removed from the saved filters.

Export saved ad hoc filters

Export ad hoc filters saved in Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click **List**.
3. Under **Lists**, navigate to **Saved Filters > Task Filter**.
4. Click **Export**.
5. Select a **File Type**.
6. Select a **Delivery Type**.
 - Select **Download** to download locally.
 - Select **Email**, then enter an email to send to.
7. Click **Export**.

Result

The saved filters are formatted and exported to the desired delivery type.

View agent information

View details about an agent at a particular location by selecting the agent icon on the Dispatcher Workspace map.

The contextual side panel shows the agent's profile that displays the agent schedule and these additional details:

- **Name:** The agent's name.
- **Assignment group:** Assignment group this agent belongs to.
- **Schedule status:** Possible values are **On time**, **Behind schedule**, and **Ahead**.
- **Shift status:** If the agent is **On shift** or **Off shift**.
- **Schedule:** The schedule of the agent.

- **Mobile Phone:** Contact number for the agent.
- **Email:** Email address for the agent.
- **Skills:** All the skills assigned to the agent.

You can also view all tasks for the agent for that day in the **Tasks** list. To display the agent's task route for the day, select **Show Route** and to optimize the route, select **Optimize Route**. The icons are labeled alphabetically based on the start time of the task in the agent's route.

Show that an agent is busy with a non-work order event

Block time on agent calendars for events that aren't related to work orders.

Before you begin

Role required: wm_dispatcher

About this task


Dispatchers can use non-work order personal events to show an agent is busy. For example, if an agent is in training all day, you can use a personal event to show an agent is busy on the calendar in Dispatcher Workspace.

For information on editing or deleting personal events, see [Edit or delete a non-work order event](#).

Note:

You can't create recurring personal events.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Select the  **Event Management** icon.
4. On the form, fill in the fields.

New event fields

User	The user that the event applies to. You can add more than one user to the event.
Event title	The title of the event shown on the calendar in Dispatcher Workspace.
Type	The type of event you're creating.
Show as	The status that shows for the agent or agents during the event.
Start	The start time for the event
End	The end time for the event.
All day event	Option to indicate that the event lasts the entire day.

5. Select **Save**.

Working on scheduled tasks in Dispatcher Workspace

Learn about different ways to view tasks in the Scheduled state.

Before you begin

A Work order task is moved to the Scheduled state only when all the following conditions are met:

- The Use scheduled state property is enabled
- The Assigned to field isn't empty
- The Assigned to or Expected start field changes, and the Expected start value is beyond the threshold (12 hours by default) from the current time

Exceptions for the Scheduled state flow

- Contractor tasks won't be in the Scheduled state.
- When an agent time-off event is created and overlaps with the work order task, the task is moved to Pending dispatch. Similarly, for crew tasks, when the leader has a time-off event overlapping with the task time, the task is moved to Pending dispatch.
- If all child work order tasks of the work order are in the Scheduled state, the work order is moved to Scheduled automatically.
- When dynamic scheduling is enabled, auto-assign isn't available for scheduled tasks. Scheduled tasks are considered for reassignment or unassignment.
- Scheduled tasks appear as blocked time when intelligent task recommendation considers technician availability.

Role required: wm_dispatcher, wm_admin, and wm_agent

Procedure

1. You can view tasks in the Scheduled state in one of the following roles.
2. Move scheduled work order tasks to the Assigned state using one of the methods.

Method	Steps
Manually move from Scheduled to Assigned	<ol style="list-style-type: none"> a. Open a scheduled work order task in the form or list view. b. Select the Confirm Assignment button. c. Select Save.
Automatically move from Scheduled to Assigned	<ol style="list-style-type: none"> a. Navigate to Field Service > Administration > Scheduled Task Assignment confirmation. b. To move all scheduled tasks to Assigned automatically, check the Active check box. <p>It runs every hour by default to move the tasks within the threshold from Scheduled to Assigned. To modify the frequency, admins can update the value of the Repeat Interval field.</p>

Manage scheduled tasks in Dispatcher Workspace

As a dispatcher, you can move scheduled tasks to the Assigned state or move them back to the Pending dispatch state in Dispatcher Workspace.

Before you begin

Role required: `wm_dispatcher` or `wm_crew_moderator`

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. View the list of all scheduled tasks, including crew tasks, in the dispatcher group by selecting **Scheduled Tasks** in the Tasks filter.
3. Assign or update a scheduled task.

Edit or delete a non-work order event

Dispatchers can change or delete a non-work order personal event if an event's details change after its creation.

Before you begin

Role required: `wm_dispatcher`

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Edit or delete the event.

Determine how overlapping tasks are assigned

If you have configured more than one way of assigning tasks, choose which task assignment option to use when assigning tasks that overlap.

Before you begin

Role required: `wm_dispatcher`.

About this task

You must have at least two out of three of the following types of task assignment enabled to determine the correct method to use:

- Automatically adjust overlapping tasks - For more information, see [Enable Dispatcher Workspace settings](#)
- Double booking - For more information, see [Setting up dynamic scheduling in Dispatcher Workspace](#)
- Auto-assignment - For more information, see [Configuring Auto Assignment scheduling](#)

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Drag a task from the task panel to a place in the calendar that already has an assigned task.
4. Select the option to determine how you want to assign the tasks.

5. Optional: Select **Default to this option when there is an overlapping task. To change this option, go to settings** to make your decision persistent.

6. Select Apply.

Using the Sidebar to communicate in Dispatcher Workspace

Dispatchers can use Dispatcher Workspace to quickly and efficiently send messages to Field Service agents through the Microsoft Teams mobile application.

When you send messages to Field Service agents with the Sidebar in Dispatcher Workspace, the agents receive and can reply to the message in the Microsoft Teams application.

Communicating from Dispatcher Workspace is made possible by configuring the Sidebar. For more information, see [Configuring communication from Dispatcher Workspace](#).

You can use the Sidebar to message agents only in the context of a work order task. Every message is added to the work notes in the work order task.

Messaging example

As an example of the effectiveness of messaging from Dispatcher Workspace, say that a dispatcher at a telecommunications provider receives a work order to fix a fiber optic cable that was damaged during construction. After dispatching three agents to fulfill the work order, a notification arrives that the fiber optic cable was damaged in two places. Instead of having to cancel the work order task and reassign it, the dispatcher uses the Sidebar to send a message from Dispatcher Workspace to the agents and updates the work order task with the additional information.

The agents receive the message in the Microsoft Teams application, and respond within minutes that they received the message and will fix the cable in both damaged places.

Messaging the agents from Dispatcher Workspace saved the dispatcher time because opening a separate work order task for the second repair wasn't necessary. It also saved the agents time because they didn't have to be dispatched again to fix the second damage location. Most importantly, the customer benefited from faster service and the agents having to visit only once thanks to the on-site communication.

Additionally, because all the messages were sent from Dispatcher Workspace, a record in the work notes of the work order task can be referenced later.

If you don't see the Sidebar in Dispatcher Workspace, contact your administrator.

Managing part requirements in Dispatcher Workspace

As a dispatcher, you can create, source part requirements and requests from Dispatcher Workspace.

You can create part requirements and source parts for the qualified work order tasks from Dispatcher Workspace. If a work order is created from a [work order template](#), the part requirements are automatically added to the work order task.

Enabling the Apply Work Order template in draft status option, allows you to create or edit work order tasks and part requirements even when the work order and work order task is in the draft state.

Watch this short video to understand more about managing part requirements in Dispatcher Workspace.

Managing part requirements in Dispatcher Workspace

Create a part requirement in Dispatcher Workspace

Create a part requirement for a work order task in Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Click a task number from the task panel or calendar that is in Awaiting Qualification, Qualified, Assigned, or Work in Progress state.

Note:

Enabling the *Apply Work Order template in draft status* configuration, allows you to create part requirements for a work order task that is in the Draft state.

3. In the **Part Requirements** related list, click **New**.
4. On the form, fill in the required fields.

Part Requirements form

Number	Auto-generated number for the part requirement.
Service order task	Number assigned to the work order task.
Model	Description of the part model needed to complete the work order task.
Required by date	Date by which all parts should be delivered. The date is filled in automatically based on the task's expected travel start time. If necessary, change the date manually.
Required quantity	Total quantity necessary to complete the part requirement. This field becomes read-only when the full number of required parts has been sourced.
Reserved quantity	Total quantity that has been sourced already.
Sourced	Indicator for whether the required quantity for this part requirement has been reserved and transfer requested from one stockroom to another.
Delivered	Indicator for whether the transfer order lines under this part requirement have been delivered or not.
Short description	Contents of the Short description field from the parent work order. If the work order was created from an incident, problem, or change request, the short description of the part requirement is inherited from that record. If the work order was created automatically from a , the short description is from model template. This field is not visible by default.

Mandatory	Option to indicate if the part is mandatory to perform the work order task.
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5. Click Save.

If the part is out of stock, a message appears at the top of the form naming the part.

Result

Part requirement is created successfully. The part requirement record number starts with an SOPR prefix and the records are stored in the [sm_part_requirement] table in the Service Order Management application.

Source parts in Dispatcher Workspace

Source parts from your preferred stockrooms or assignment groups to complete the work order task promptly.

Before you begin

Role required: wm_dispatcher

Ensure that the part you are sourcing is not requested before.

About this task

Parts sourcing is a process of reserving and obtaining parts described in a part requirement record. You can source the necessary parts to complete the work order task.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace.**
2. Select **Dispatcher Workspace.**
3. Click the work order task for which you want to source the parts from the task panel.
4. Click the **Part Requirements** tab, view a list of required parts for the task.
5. Select the part that you want to source.

Note:

The Source Part option is enabled only if you select a part that is not previously sourced or marked false as requested.

6. Click Source Part.

7. On the form, fill in appropriate option based on the desired sourcing criteria.

Source Part form

Option	Description
To stockroom	Location of the stockroom where the item is to be shipped. This field is auto-populated with a default personal stockroom location of the agent.
Stockroom selection criteria	Choice of a stockroom from where you want to source the part. For example, preferred stockrooms, all stockrooms, and assignment group stockrooms.

Option	Description
Search radius	Radius in selected distance unit (miles or kilometers).

The stockroom locations appear in the Source part form and as cards in the map screen.

Note:

Only stockrooms that have the specified part are included in the list.

8. **Optional:** If there are no stockrooms available that match the selected search criteria, you can either change the sourcing criteria or click **Place a part request** to source the part from assignment groups or other stockrooms.
 - A part request (REQ) is created for the specified part requirement with the state as **Pending Approval** and the part request line with the state as **Requested**.
 - A temporary part request (RITM) record is created for the requested parts and sent to your agents as a mobile notification.
9. Select a stockroom from the list of available stockrooms.
10. Enter the total quantity of the parts required to complete the task in the **Reserve quantity** field.
11. Click **Submit**.

Result

The transfer order and transfer order line is created for the sourced part.

What to do next

Complete the transfer orders: If the agent sources parts from other stockrooms or assignment groups, a transfer order line is created automatically. You can then complete the transfer order, ensuring the parts are moved to the designated location.

Advanced Filtering in Dispatcher Workspace

Advanced filters in Dispatcher Workspace give dispatchers greater control to interact with the resources they use most. Dispatchers can also use advanced resource to personalize the resources they see when they open Dispatcher Workspace.

Dispatchers can create their own advanced resource filters in Dispatcher Workspace. A filter can be saved as a default and applied every time Dispatcher Workspace opens. This personalizes the resources that dispatchers see, allowing them to focus on resources they interact with most.

Dispatchers can also create any number of advanced filters and save them to use at any other time. Contact your administrator if you don't see the advanced filters in Dispatcher Workspace.

For more information on configuring advanced resources, see [Configuring advanced resource filters for Dispatcher Workspace](#).

Personalize your resource view in Dispatcher Workspace

Dispatchers can personalize the resources they see in Dispatcher Workspace by creating an advanced resource filter that applies every time they open Dispatcher Workspace.

Before you begin

Role required: wm_dispatcher.

Procedure

1. Navigate to **Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Select **Filter resources**.
4. Select **+ Advanced filters**.
5. **Optional:** Select **Crews** if this is a new crew filter.
6. Add or edit the filter that you want apply when you open Dispatcher Workspace.
7. Select **Set as default**.
8. Select **Apply**.



Filter resources in Dispatcher Workspace

You can create your own advanced resource filters in Dispatcher Workspace to make complex filtering easy.

Before you begin

Role required: wm_dispatcher.

Procedure

1. Navigate to **Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Select **Filter resources**.
4. Select **+ Advanced filters**.
5. **Optional:** Select **Crews** if this is a new crew filter.
6. **Optional:** Select a filter from the **Use existing filter** drop-down menu if you're making changes to an existing filter.
7. Add or edit the filter that you want to apply.
8. Choose from the following:
 - Select **Save Filter** to name the filter and save it.
 - Select **Apply** to run the filter. Select the filter again to clear the filter from Dispatcher Workspace.
 - Select the more actions icon , then **Update** to overwrite the filter if you were making changes to an existing filter. You can't update administrator created filters.
 - Select the more actions icon , then **Save as new** to save a new filter if you were making changes to an existing filter.

If you saved the filter, you can now select the filter from the **Advanced filters** drop-down menu. **Filter resources** changes to **Temporary filter** when a filter is applied.


Delete an advanced filter

You can delete an advanced filter in Dispatcher Workspace if you want to remove it after you create it.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **Field Service > Dispatching > Dispatcher Workspace**.
2. Select **List**.
3. Navigate to **Saved Filters > Resource filters**.
4. Select the filter you want to delete.
5. Select the ellipses icon .
6. Select **Delete**.

Bundling work order tasks

Logically grouping similar tasks into a bundle enables agents to track, start, and complete related tasks at once instead of individually with Field Service Task Bundling.

An administrator must activate the Field Service Task Bundling plugin to bundle work order tasks. Work order task bundling is then added to the instance, and dispatchers are able to bundle work order tasks into logical groups.

For information about configuring the Field Service Task Bundling plugin, see [Configuring Task Bundling](#).

With work order task bundling, dispatchers can do the following:

- Create a bundle.
- Assign a bundle.
- Add or remove tasks from a bundle.
- Change a bundle.
- Change the order of subtasks in an unassigned bundle.
- Unbundle a bundle.

Work order task bundles are groups of work order tasks created manually by a dispatcher or automatically through dynamic bundling. Tasks bundles have the following attributes:

- Inherit the state, assigned to, and schedule lock values from the parent bundle.
- Inherit the actual travel and work start values from the actual travel and work start values of the earliest subtask.
- Inherit the actual work end value from the end value of the last subtask.
- Synchronize the estimated work duration with the estimated start and end times of bundled tasks.

Creating bundles

Dispatchers create task bundles in Dispatcher Workspace. You can combine any number of work-order tasks into a bundle. You can group tasks by various criteria, such as a territory or an agent's route.

When a bundle is created, a work order task and work order number are assigned. Bundles must be assigned to an agent after they're created.

If any task in a bundle enables overtime, then the entire bundle is set to enable overtime.

Administrators can configure dynamic bundling policies and rules to bundle tasks automatically. For more information, see [Dynamic task bundling](#).

Assigning bundles

Dispatchers assign bundles in Dispatcher Workspace. Assigned and unassigned bundles follow the same rules as normal work order tasks. Subtasks in a bundle inherit the state, assigned to, and schedule lock values of their parent bundle.

Administrators can use dynamic scheduling or route optimization to assign bundles automatically.

Accepting or rejecting tasks in the bundle

After a bundle is assigned, a field service agent can accept or reject the tasks in the bundle. Agents can reject tasks in a bundle after they've started to work on the bundle itself.

When an agent rejects a subtask in a bundle, the bundle is moved back to the Pending Dispatch state. If the bundle was schedule locked, the bundle is also unlocked to enable reassignment of the bundle.

For more information, see [Accept or reject a work order task](#).

Changing a bundle

You can change a bundle after you create it. If you want to change a subtask in a bundle, you must remove the subtask from the bundle before making changes. Dispatchers can only add tasks in the Pending Dispatch state to bundles. Tasks in the Accepted, Work in Progress, Cancelled, Closed Complete, or Closed Incomplete states can't be removed from bundles. When a task is removed from a bundle or an agent rejects a task that's in a bundle, then the task returns to the Pending Dispatch state. You can also unbundle a bundle.

Subtasks in bundles

The location of the subtask in the first order position determines the bundle's location. If you want to update the location of a bundle, change the order location of the subtask in the first order position rather than the order location of the bundle.

If you want to change the work duration or scheduled start time for a subtask in a bundle, remove the subtask from the bundle and make the changes. Then add the subtask back to the bundle.

When a subtask is added to a bundle, validation occurs and pushes any work duration or schedule changes to the bundle. If you don't remove a subtask before changing it and adding it back, then the changes don't reflect in the bundle.

Interactions with other features

Like work order tasks, work order task bundles can be optimized by route, scheduled dynamically, recommended through task recommendation, and altered in Dispatcher Workspace.

Route Optimization

Dispatchers can use Route Optimization to optimize bundles on an agent's schedule using the same methods that are used for optimizing work order tasks.

When you use Route Optimization, the bundles are considered their own tasks and are optimized as a whole alongside individual tasks. To enable optimization of subtasks within bundles, admins can toggle the

(work.management.travel.calculation.bundle_route_optimization) property.

Dynamic scheduling

Dynamic scheduling automatically schedules work order tasks and work order tasks bundles to agents. For more information, see [Dynamic scheduling](#).

To ensure dynamic bundling runs before dynamic scheduling, admins can enable the **Dynamic Bundling before Dynamic Scheduling**(*com.snc.dynamic.scheduling.bundle_before_scheduling*) property.

Intelligent Task Recommendation

Task recommendations only show for the task bundle, not for subtasks within a bundle.

If a bundle is schedule locked, the bundle isn't recommended.

Dispatcher Workspace

Drag bundles directly to agent schedules.

Drag the sides of the bundle to extend or reduce bundle work duration.

Apply agent sorting to bundles and work order tasks based on skills, distance, and parts.

Lock and unlock bundles directly from the calendar view.

Consolidate bundled tasks and view bundle location on the map view.

Territory Planning

Task bundling considers the agent's start and end locations from the **Agent Schedule Attribute Plans** table for the given day if the Territory Planning plugin is activated. For more information, see [Activate Field Service Territory Planning](#).

Create a work order task bundle

Bundle tasks to enable agents to track multiple tasks in one work order task rather than individually. Minimize drive time by combining unplanned site visits with scheduled maintenance.

Before you begin

Role required: wm_dispatcher

About this task

When bundling tasks, note the following restrictions:

- Tasks must be in the Pending Dispatch state to be added to a bundle.
- Bundles can't be added to another bundle.
- You can't add work order tasks that have dependencies, need a crew, or have a fixed access window to a bundle.
- Vendor tasks can't be added to a bundle.
- You can't create a sibling of a bundle that is in a bundle or create a sibling of a task that is in a bundle.

- Tasks can't be schedule locked.
- All subtasks must belong to the same assignment group. If territory management is enabled, they must also be in the same territory.

Procedure

1. Navigate to **All > Field Service > Dispatching > My Dispatch Queue**.
2. Select the tasks that you want to bundle.
3. Select **Actions on selected rows...**
4. Select **Create bundle**.

Result

The bundle is added to the My Bundles list.

Add or remove tasks from a work order task bundle

Add relevant tasks to a work order task bundle or remove tasks if the bundle becomes too large to manage.

Before you begin

Role required: wm_dispatcher

About this task

When you add tasks to a bundle, the order number assigned to the tasks continues sequentially, even if you removed the highest priority task from the bundle. For example, if you remove the task from the first order position while also adding a task, the new task is positioned last in order, after all the existing tasks.

When adding tasks to bundles, note the following restrictions:

- Tasks can't be schedule locked.
- Tasks can't be part of another bundle.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. In the left panel, select **Dispatcher Workspace**.
3. Select the work order task bundle from which you want to add tasks to or remove tasks.
4. Select the **Bundled tasks** tab.
5. Either add a task to the bundle or delete a task from the bundle.
 - To add a task, select **Add**, select the task, and select **Add**.
 - To remove a task, select the task and select **Remove**.

Assign a work order task bundle

Assign work order task bundles so agents can plan their work effectively.

Before you begin

Role required: wm_dispatcher

About this task

When you assign a bundle, the work duration is calculated by adding the work durations and travel times for all the tasks in the bundle to the travel time for the first task location. Changes to

time duration due to adding or removing tasks from a bundle or changing the duration of a task automatically update the duration time for the bundle.

Changing the **Assign to** field value on a bundle changes the assignment of all the tasks in a bundle.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **Dispatcher Workspace**.
3. Drag the bundle that you want to assign to the desired available agent row and time column.

Result

The tasks in the bundle are added to the agent's queue to accept or reject.


Change a work order task bundle

Update a work order task bundle with any changes so that agents and dispatchers stay synchronized.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. In the left panel, select the **List** icon ()
3. Select **My Bundles**.
4. Select the bundle that you want to change.
5. Make your desired changes.
See [Field Service Task Bundling fields](#) for information on the fields that you can change.
6. Select **Save**.

Change the order of subtasks in a bundle

Change the order of subtasks in a bundle if you want the subtasks to be completed in a different order than the one originally assigned.

Before you begin

Role required: wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace**.
2. Select **List**.
3. Select **Dispatching > My Bundles**.
4. Select the bundle that you want to reorder.
5. Select **Bundled Tasks**.
6. Double-click (or use the keyboard shortcut) to select the order number of the subtask that you want to reorder.
7. Enter a new order number.
8. Select **Save**.

Unbundle a work order task bundle

Unbundle work order bundles if you want to group the subtasks differently or divide the work in another way.

Before you begin

Role required: wm_dispatcher

About this task

When you unbundle a work order task bundle, the work order task bundle enters a Canceled state. All work order tasks remain assigned to the same agent and are scheduled back-to-back.

Procedure

1. Navigate to **All > Field Service > Dispatching > Dispatcher Workspace.**
2. Select **Dispatcher Workspace.**
3. Select the bundle.

4. Select **Unbundle.**

Managing agents and tasks from Workforce

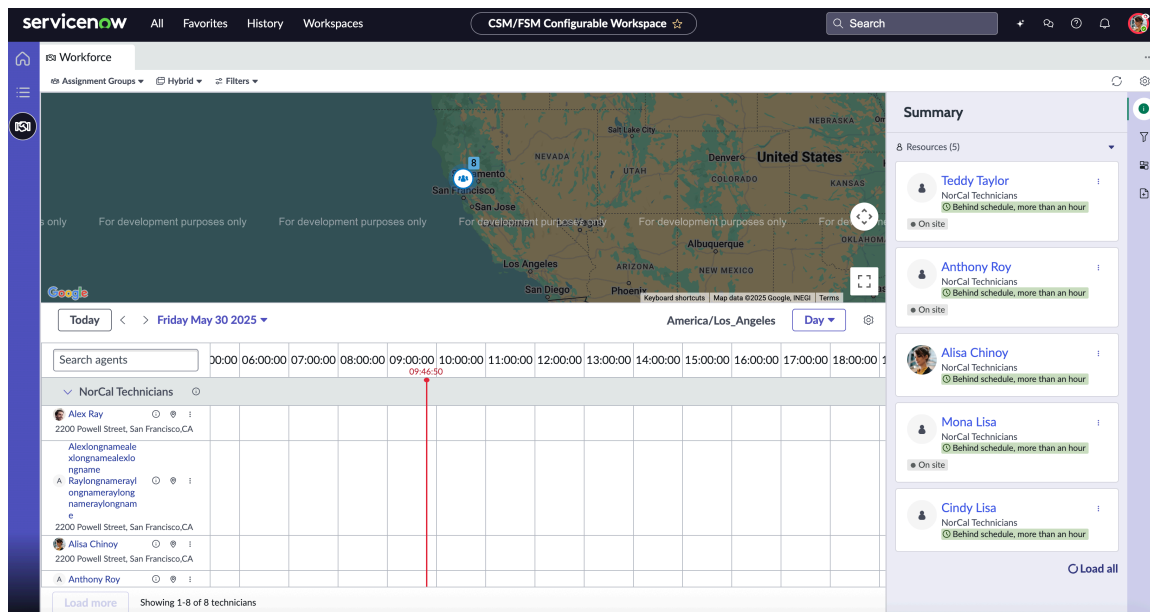
Workforce is a configurable application that enables any users with the wm_basic role to easily access and view agent schedules, the team calendar, and map from one centralized location.

Managers can view agent schedules, create personal events, view agents' location history and view tasks on a map. Agents are also able to view schedules and create personal events for themselves.



Note:

You must be a manager of a group or territory to view schedules.



Change views in Workforce

Switching between assignment group and territory views in Workforce helps simplify planning and managing team tasks and resources efficiently.

Before you begin

Role required: wm_basic

Procedure**1. Navigate to Workforce.**

- Managers, navigate to **All > Field Service > Manager > Workforce.**
- Agents, navigate to **All > Field Service > Agent > Workforce.**
- If Workforce Optimization is installed and activated, managers can navigate to **Workspaces > Manager Workspace > Workforce.**

2. Select the gear icon.**3. In the Show resources by field, select Assignment group or Territory.**

If **Territory** isn't listed in the **Show resources by** field, have your administrator verify that [Field Service Territory Planning](#) is properly configured.

4. Select Save.**Related topics**

[Configuring Field Service Territory Planning](#)

[Workforce system properties](#)

[Configure territory view to allow users to see other members' schedules](#)

Configure a default assignment group on the team calendar

Set an assignment group as default to readily access them on the team calendar.

Before you begin

Role required: wm_agent, wm_basic, or wm_manager

About this task

Whenever you log in to the team calendar, agents in the default assignment group are displayed.

Procedure**1. Navigate to All > Field Service > Manager > Workforce.****2. Select the settings icon. ()****3. In the Default Group list, select a group that you would like to set as default.****4. Click Save.**

Whenever you log in to **Workforce**, agents in the default assignment group are displayed.

 Note:

If your default assignment group is removed, the agent list shows users from the first group in the list displayed in alphabetical order.

Configure a default territory on the Team calendar

Set a specific territory as default to readily access it on the team calendar.

Before you begin

Role required: wm_agent, wm_basic, or wm_manager

About this task

Whenever you log in to the team calendar, the default territory is displayed.

Procedure

1. Navigate to **Workforce**.

- Managers, navigate to **All > Field Service > Manager > Workforce**.
- Agents, navigate to **All > Field Service > Agent > Workforce**.
- If Workforce Optimization is installed and activated, managers can navigate to **Workspaces > Manager Workspace > Workforce**.

2. Select the gear icon.

3. In the **Default Territories** field, select the territory that you would like to set as default.

4. Select **Save**.

Whenever you log in to **Workforce**, default territory is displayed.

Using the team calendar

The team calendar lists the agents in the selected group and displays the work order tasks assigned to each agent. It also displays other events such as case tasks, appointments, and personal time-off.

The calendar displays information by day, work day or week. In the week view, the current day is highlighted in blue. Buttons in the calendar header enable you to search for agents, switch views, and go backward or forward in time. You can select a specific date or date range or click **Today** to select the current date.

Field service users with the `wm_basic` role have access to the team calendar, where they can view a list of agents along with the work order tasks and events assigned to each agent.

Users can also customize the settings to set default groups and a default starting view. In the right side panel, users can also:

- See a summary of details for a selected task or resource
- Use resource filters to display specific agents or skills
- Customize events displayed on the calendar
- Create events

Based on the group visibility permissions, agents can view the list of the members their group and their group members' schedules.

An administrator can [Configure Workforce](#) to customize the team calendar, set system properties for group and territory views, increase visibility for better coordination, and allow users to switch between viewing assignment groups and territories.

Managing agents and agent groups on the team calendar

View agent events, add events for agents, and search agents and agent groups using the team calendar. You can also add or edit agent skills.

View an agent profile

An agent profile displays the agent's personal information as well as the work status, schedule, location, and time zone. View the agent's profile from the team calendar.

Before you begin

Role required: `agent_schedule_user`

About this task

Agents can view the list of the members their group and their current schedules based on the group visibility configuration.

Procedure

1. Navigate to **Workforce**.
 - Managers, navigate to **All > Field Service > Manager > Workforce**.
 - Agents, navigate to **All > Field Service > Agent > Workforce**.
2. Select **Schedule** from the View Controls list.
3. To preview the profile of an agent, click on the information icon in the agent list. The pop-over panel displays the agent information.
4. An agent can update their own profile by, clicking the overflow actions icon and open the record or click their name.
 - a. On the form, edit or add information as appropriate:

Agent Profile Form

Field	Description
First name	First name of the agent.
Last name	Last name of the agent.
Work agent status	The agent's work status when the agent updates the work order task.
On schedule	The actual schedule of the agent relative to the planned schedule to execute the work order task.
Email	Email address of the agent.
Home phone	Home phone number of the agent.
Mobile phone	Mobile phone number of the agent.
Business phone	Business phone number of the agent.
Photo	Photo of the agent. To upload the photo, click Click to add... , select the photo and click OK .
Location	Physical address where the agent is located.
Time zone	Time zone where the agent is located.

- b. Click **Save**.

Update an agent's profile

Update shifts, skills, schedules, work parameters, and work order tasks for agents in your assignment groups.

Before you begin

Role required: wm_manager

Procedure

1. Navigate to **All > Field Service > Manager > Workforce**.
2. Select **Schedule** from the View Controls list.
3. Select an agent name.
The agent profile preview appears.
4. To add or edit agent skills:
 - a. Click the agent's name.
 - b. In the **Skills** related list, either add new skills or edit existing skills for the agent.


To	Do this
Add new skills	<ol style="list-style-type: none"> i. Click New. ii. In the Name field, enter a skill name. iii. In the Description field, enter the description for the skill. iv. Click Submit.
Edit existing skills	<ol style="list-style-type: none"> i. Click Edit. ii. Add skills from the Available to the Selected column. iii. Click Save.

The selected skill is added to the **Skills** list in the user profile.

5. To view or modify an agent schedule:
 - a. In the **Agent Schedules** related list, do one of the following:
 - To view an agent schedule, select a schedule record.
 - To add a new schedule for the agent, click **New**.
 - In the **Agent Work Schedule** form, fill in the fields as needed:

Field	Description
From Date	The start date of the agent work schedule.
To Date	The end date of the agent work schedule.
User	Name of the agent.
Work Schedule	Name of the work schedule.
Type	The type of schedule.

6. To add work parameters:
 - a. In the **Work Parameters** related list, click **New**.
 - b. In the **Work Parameters** form, fill in the fields as needed.

Field	Description
User	Name of the agent.
Distance Unit	Select Miles or kilometers .
Travel outside of work hours	Select Yes or No .
Maximum travel radius	Radius in selected distance unit (miles or kilometers).
Maximum part search radius	Radius in selected distance unit (miles or kilometers). The default value is 50 miles.  Note: The stockroom map screen in the Now Mobile Agent application displays the distance in kilometers.

The maximum travel radius is considered as agent's work radius to assign the work order tasks in Dispatcher Workspace, work order form, or dynamic scheduling. A warning message appears if the assigned task is outside of the radius between task location and the agent's location.

7. Click **Submit**.

Create a personal event

Enable agents and managers to efficiently schedule events, including time off and appointments, through Workforce. Additionally, managers have the capability to organize meetings and schedule time off and training.

Before you begin

Role required: wm_agent, wm_manager

About this task

Agents can only create personal events for themselves, while managers can create events for anyone they manage.

Procedure

1. Navigate to **Workforce**.

- Managers, navigate to **All > Field Service > Manager > Workforce**.
- Agents, navigate to **All > Field Service > Agent > Workforce**.
- If Workforce Optimization is installed and activated, navigate to **Workspaces > Manager Workspace > Workforce**.

2. Click the **Event Management** icon in the right side panel.

3. On the form, fill in the fields.

4. Click **Save**.

Note:

When an event is created in Workforce, its data is stored in the `cmn_schedule` table, and the associated time spans are stored in the `cmn_schedule_span` table.

- `cmn_schedule` contains the overall schedule record for the event.
- `cmn_schedule_span` stores the individual time segments that define the event's duration.

To verify that an event has been successfully created, check for its record in the `cmn_schedule` table and confirm that the corresponding spans exist in `cmn_schedule_span`.

Related topics

[View personal events on the Team calendar in Workforce](#)

View personal events on the Team calendar in Workforce

View events, such as agent time off, agent appointments, and meetings using Workforce.

Before you begin

An administrator must [Configure event types to appear on the Team calendar in Workforce](#). The "sn_shift_planning.agent" role is required for an agent's schedule to be visible in the Team calendar in Workforce.

Role required: `wm_basic`

About this task

https://player.vimeo.com/video/1040423962?h=290bc44ac6&badge=0&autoplay=0&player_id=0&app_id=58479

Procedure

1. Navigate to **Workforce**.

- Managers, navigate to **All > Field Service > Manager > Workforce**.
- Agents, navigate to **All > Field Service > Agent > Workforce**.

2. Select the **Calendars** icon in the contextual side panel.

Note:

This feature is not supported when Workforce Optimization for Field Service is installed and enabled. To create event types using WFO, see [Create event types to display on the team calendar with Workforce Optimization for Field Service](#).

3. Use the toggle switches to view the specified event type on the Team calendar.

The following event types can be toggled to display on the Team calendar.

- Event – Appointment
- Event – Excluded
- Event – Meeting
- Event – Other
- Event – Phone
- Event – Time Off

- Work Order Tasks
 - Work Schedule
- The selected event type is visible on the Team calendar.

Related topics

[Configure team calendar visibility for group members](#)

Using the map

The map displays agent information and the tasks assigned to them. Field service users can search and view information about agents in their assigned groups and the status of tasks in their area.

The map can be accessed by selecting **Maps** from the **Workforce** toolbar in the Team Calendar.















The map uses icons to display:

- Task status
- Agent status
- Resource locations
- Agent home location
- Assignment group locations
- Task locations

Map legend

Icon	Description
	An agent's location.
	The agent is at their home location.
	Multiple agents are at this location.
	A task is accepted, assigned, or scheduled.
	Multiple tasks have been accepted, assigned, or scheduled at this location.
	A priority-1 task has been accepted, assigned, or scheduled.
	The assigned work order task displayed while viewing agent's route. The number indicates the order in which the task will be completed.
	A task is in the pending dispatch or draft state.
	Multiple tasks are in the pending dispatch or draft state.

Map legend (continued)

Icon	Description
	A priority-1 task is in the pending dispatch or draft state.
	An agent is on the way to the task, work on the task is paused, or the task is in progress.
	An agent is on the way to a location with multiple tasks, work on a task is paused, or the task is in progress.
	An agent is on the way to a priority-1 task, work on the priority-1 task is paused, or the priority-1 task is in progress.
	A work order task is complete.
	Multiple tasks are complete at the same location.
	A priority-1 task is complete.
	A task was closed as incomplete or canceled.
	Multiple tasks were closed as incomplete or canceled.
	A priority-1 task was closed as incomplete or canceled.
	A task is assigned at the agent's home location.
	Multiple tasks are assigned at the agent's home location.
	More than one task, agent, or crew is at this location.
	More than one task, agent, or crew is at this location. At least one of the tasks at this location is a priority-1 task.

Viewing agent location and assign tasks to agents

View the location of agents in your assignment group so you can assign agents to nearby tasks.

Before you begin

Role required: wm_manager

Procedure

1. Navigate to **Workspaces > CSM/FSM Configurable Workspace > Workforce**.
2. Select **Map** from the View Controls list.

3. **Optional:** View details about tasks or agents by clicking the related icons.
4. To assign or reassign a work order task, open a task and add the agent you want to work on the task to the **Assigned to** field.

View agent location history map

Access a historical map of field service agents' locations to track and analyze their activities over time.

Before you begin

Role required: `wm_agent`, `wm_manager`

About this task

Field service agents have the ability to view and monitor their own location history. Similarly, managers can access and track the location history of the agents they oversee.

Procedure

1. Navigate to **Workforce**.
 - Managers, navigate to **All > Field Service > Manager > Workforce**.
 - Agents, navigate to **All > Field Service > Agent > Workforce**.
2. Select the location history icon on the agent card.
The **Agent Location History Map** highlights the agent's tracked locations on the selected date.
3. Select a marker to open a geolocation history record.
The data record appears with details such as user, location, latitude, longitude, location timestamp, duration, task, and action description from the geolocation history table.

Note:

The work order task number appears if the agent activity is a task. You can open the work order task record to view the details.

Assigning multi-day tasks to agents

With the Field Service multi-day task scheduling capability, you can schedule work-order tasks spanning multiple schedule entries or days.

Multi-day task scheduling allows dispatchers to assign work order tasks, spanning across multiple schedule entries to agents or crews within their defined working hours. If they're available throughout the task duration. Task schedulers can split work slots evenly throughout the day after considering the task duration, resource working and non-working hours, and resource availability throughout the task duration. Tasks can be assigned to the same agent or crew for multiple days or weeks by skipping the break and other non-working hours from their schedule.

This feature supports manual and dynamic scheduling methods to assign work order tasks to an agent or a crew using ServiceNow AI Platform and Dispatcher Workspace.

Field Service Multi-Day Task Scheduling uses the value of the `com.snc.wm.wo.task_window_days` property to calculate the estimated end date of the task based on the schedule of a selected agent or crew.

The following examples illustrate multi-day scheduling.

Example: Schedule a task within the same day

Task duration: four hours, Agent schedule: 08:00- 17:00, Excluded lunch break: 12:00-13:00.

The scheduler excludes break hours from the agent's work schedule while scheduling the task. Therefore, the task is scheduled to start at 10:00 and ends at 15:00. the same day, including multiple work schedules of two hours each and pre- and post-break hours of the agent's schedule.

Example: Schedule a task across multiple days

Task duration: 20 hours, Agent schedule: 08:00- 17:00, Excluded lunch break: 12:00- 13:00.

The scheduler excludes break hours from the agent's work schedule while scheduling the task. Therefore, the task is scheduled to start on Monday at 10:00 and end on Wednesday at 12:00, including multiple work schedules spanning three days. Each work schedule is estimated for four hours, including pre- and post-break hours of the agent's schedule.

Related topics

[Activate Field Service Multi-Day Task Scheduling](#)

[Assign multi-day tasks to agents](#)

[Assign work order tasks to crews on Dispatcher Workspace](#)

Assign multi-day tasks to agents

Assign a work order task that requires multiple schedules or days to complete the job to a field service agent. This capability avoids having to create more than one task for the same job.

Before you begin

If you are scheduling a task across multiple schedule entries or days, a work schedule must have been assigned to the agent. For more information, see [Create a work schedule for agents](#).

Note:

If the agent schedule has not been defined and you are auto-assigning a task, the system uses the default schedule.

Role required: wm_admin

About this task

For information about how to assign a multi-day task to a crew, see [Assign work order tasks to crews](#).

This procedure explains how you can assign a multi-day task to an agent using ServiceNow AI Platform. For information about how to assign a multi-day task using Dispatcher Workspace, see [Assign work order tasks to agents](#).

Procedure

1. Navigate to **All > Field Service Management > Work Order > Work Order Tasks**.
2. Select the desired task for assignment.
3. Select the **Assign across the schedule entries** check box if it is not already selected.
4. Assign the task.
The system calculates the estimated end date of the task based on the schedule of the selected agent.

Result

The task schedule spanning multiple schedule entries, days, or weeks is assigned to an agent.

Scheduling and assigning equipment to tasks and crews

Assigning equipment to a work order task ensures that crews or assigned agents are properly equipped for the task.

An administrator must install the Field Service Resource Scheduling plugin (com.snc.resource_scheduling). Resource scheduling is then added to the instance, and dispatchers are able to assign equipment to crews.

For information about configuring Field Service Resource Scheduling plugin, see [Configuring Resource Scheduling](#).

Dispatchers can assign equipment and resources to crews or tasks.

- Assign equipment to planned crews.
- Assign equipment to task crews.
- Assign equipment to groups.

Crew leaders can use the Now Mobile agent app to modify their crews or manage their tasks. For more information, see [Crew on Mobile Agent](#).

- Add, remove, or swap planned crew members.
- Add or remove equipment and agents according to the resource requirements of the task.

Interactions with other features

Skills

Admins ensure only skilled, certified, or trained personnel are assigned the equipment. For more information, see [Add skills to an equipment instance](#).

Geolocation tracking

The latitude and longitude fields (position) of equipment will update according to the status and location of the crew leader. If geo-tracking is enabled for the crew leader, the position of the equipment will update based on the positional updates of the crew leader. If geo-tracking is not enabled for the crew leader, the position of the equipment updates to the task location at the start of work. Position is cleared once the equipment is checked in.

Related topics

[Configuring Resource Scheduling](#)

Assign equipment to a planned crew

Assign equipment to a planned crew to ensure they have tools for their work order tasks. Dispatchers can assign equipment through the ServiceNow AI Platform or Dispatcher Workspace. Crew leaders can assign equipment or modify their crews through the Now Mobile Agent application.

Assign equipment to planned crews through the ServiceNow AI Platform

Assign equipment to a planned crew through the ServiceNow AI Platform. A planned crew is a predefined group of agents and equipment.

Before you begin

Role required: wm_admin, wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Manager > My Crews.**
2. Select the planned crew to add equipment to.
3. In the **Equipment** related list, select **Add.**
4. On the form, fill in the fields.

Crew Member form

Fields	Description
Equipment	The equipment instance.
Effective from	Effective start date the equipment is assigned for.
Effective to	Effective end date the equipment is assigned until.
Active	Option that determines whether this instance is active and will appear on the dispatcher calendar.

5. Select **Submit.**

Result

Equipment is added to the planned crew. This crew is eligible for tasks with equipment requirements that match the crew's equipment. An equipment instance can be assigned to only one crew at a time.

Related topics

[Create crews in Field Service Management](#)

Assign equipment to planned crews through Dispatcher Workspace

Assign equipment to a planned crew through Dispatcher Workspace. A planned crew is a predefined group of agents and equipment.

Before you begin

Role required: wm_ admin, wm_dispatcher

Procedure

1. Navigate to **All > Field Service Management > Dispatching > Dispatcher Workspace.**
2. Click **Dispatcher Workspace.**
3. Use either the dispatcher calendar or the dispatcher calendar sidebar to add equipment to a crew.
4. Select **Update.**

Result

Equipment is added to the planned crew. This crew is eligible for tasks with equipment requirements that match the crew's equipment. An equipment instance can be assigned to only one crew at a time.

Related topics

[Create crews in Field Service Management](#)

Assign equipment to planned crews through the Now Mobile app

Assign equipment to a planned crew through the Now Mobile Agent application. A planned crew is a predefined group of agents and equipment.

Before you begin

Role required: wm_crew_leader

Procedure

1. Navigate to **My work > My crews**.
2. Select a crew.
3. Tap **Equipment**.
4. Tap **Add equipment**.
5. Select the equipment.
6. Tap **Submit**.

Assign equipment to a task crew

Assign equipment to an ad hoc task crew to ensure they have the necessary tools to complete the work order task.

Before you begin

Note the following requirements to assign the equipment:

- The work order task must already have a task crew assigned. See [Create ad hoc crews in Dispatcher Workspace](#) for more information.
- The work order task must already have resource requirements. See [Add resource requirement for a work order task in Dispatcher Workspace](#) for more information.

Role required: wm_admin, wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Manager > Work Order Tasks**.
2. Select the work order task.
3. In the **Task Assignees** tab, select **Add**.
4. On the form, fill in the fields.

Task Assignee form

Fields	Description
Requirement	Name of the resource requirement that this assignment addresses.
Resource Type	Should be set to Equipment .
Equipment	The equipment instance to be assigned.

5. Select **Submit**.

Result

On the task crew page, the equipment appears in the **Task Assignees** tab.

Assign an equipment instance to groups

Assign equipment instances to groups.

Before you begin

Role required: wm_admin

About this task

Assign equipment instances to groups to allow dispatcher to interact with the instance.

Procedure

1. Navigate to **All > Field Service > Equipment Resources > Equipment Instances**.
2. Select the equipment instance.
3. In the **Groups** related list, click **Edit...**
4. Select group(s) from the **Collection** field.
5. Move selected groups to the **Groups List** field.
6. Click **Save**.

Result

The equipment instance will be assigned to the selected groups.

Create a maintenance schedule for an equipment instance

Create a schedule for regular maintenance or downtime for an equipment instance.

Before you begin

Role required: wm_admin, wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Equipment Resources > Equipment Instances**.
2. Select an instance.
3. In the **Resource Events** related list, click **New**.
4. On the form, fill in the fields.

Resource Events

Fields	Description
Resource	Name of the equipment instance.
Type	Type of resource event. <ul style="list-style-type: none"> ○ Downtime ○ Maintenance
Schedule	Schedule for this downtime or maintenance.

5. Click **Update**.

Result

The schedule appears under the **Resource Events** related list and on Dispatcher Workspace.

Allowing contractors to bid on work orders and tasks

Field Service Marketplace optimizes contractor management, improves communication, and streamlines task allocation processes.

With Field Service Marketplace, you can post tasks on the marketplace. Contractors can then use their mobile devices to respond to these requests. This makes it easy to manage tasks on-the-go.

Push a request to Field Service Marketplace

Create a marketplace request and push to contractors using Field Service Marketplace.

Before you begin

Role required: sn_mktplace_core.mktplace_requestor


Ensure that the Field Service Marketplace plugin is active. For more information, see [Activate Field Service Marketplace](#).

The work order task must have the Marketplace task flag set to true.

About this task

You can push tasks to contractors on Field Service Marketplace. The following procedure is completed using Playbooks.

Procedure

1. Navigate to **All > Field Service > Dispatcher > Dispatcher Workspace**.
2. Select a work order task.
3. Select the **More Actions** icon ()
4. Select **Push to Marketplace**.
5. Select an **Engagement method**.
6. Enter a **Start** and **End** time for the request.
The start and end fields set the duration the task is available on the marketplace. The default values are based on the lead time and duration fields of the selected engagement method.
7. Select the contractors who can respond to the request.
8. Select **Push request**.

Result

The request is sent to the contractors. Contractors can respond with time or cost estimates depending on the configuration. For more information, see [Create a marketplace engagement method](#).

What to do next

After receiving a response, review the responses to assign the task to a contractor or respond with other inquiries. For more information, see [Assign a task to a contractor on Field Service Marketplace](#).

Add a contractor to Marketplace participants post-push

Use the Add Contractor button to add an eligible contractor to the list of marketplace participants once a work order task has already been pushed to Marketplace.

Before you begin

Role required: sn_mktplace_core.mktplace_requestor

Ensure that the Field Service Marketplace plugin is active. For more information, see [Activate Field Service Marketplace](#).

The work order task must have already been pushed to Marketplace.

Procedure

1. Navigate to **All > Field Service > Dispatcher > Dispatcher Workspace**.
2. Select a work order task that has already been pushed.
3. In **Marketplace Participants**, select the Add Contractor button and choose the contractor you want added to the list of eligible marketplace participants.

Result

The contractor you selected has been added to the eligible list of marketplace participants.

Respond to a request on Field Service Marketplace

Respond to or decline requests on Field Service Marketplace.

Before you begin

Role required: sn_mktplace_core.mktplace_fulfiller

Ensure that the Field Service Marketplace plugin is active. For more information, see [Activate Field Service Marketplace](#).

Fulfilling requests on Field Service Marketplace is only available via the Mobile experience. This requires the Field Service Contractor for mobile plugin (com.snc.fsm_ext_mobile).

Procedure

1. Navigate to **Marketplace**.
2. On a pending response, choose from the following:

Note: Selection options vary depending on the requestor's configuration.

Option	Description
Respond	Enables you to respond with time estimates, cost estimates, or other notes and comments. The requestor may award the task to you.
Accept	Accepts the request. The requestor may award the task to you.
Decline	Declines the request. The request is removed from your pending responses.

Result

After responding or accepting, the requestor decides who to award the task to. If declined, the request is removed from the pending responses.

What to do next

Wait for the request window to close. If you want to withdraw from the request, see [Withdraw from a request on Field Service Marketplace](#).

Withdraw from a request on Field Service Marketplace

Withdraw from a request you responded to on Field Service Marketplace.

Before you begin

Role required: sn_mktplace_core.mktplace_fulfiller

Fulfilling requests on Field Service Marketplace is only available via the Mobile experience. This requires the Field Service Contractor for mobile plugin (com.snc.fsm_ext_mobile).

About this task

If there aren't enough agents available, or there are other obstacles, you can withdraw from a previously accepted or responded request.

Procedure

1. Navigate to **Marketplace > Submitted requests**.
2. On the selected request, select **Withdraw**.

Result

Your response is withdrawn from the request. The request is removed from your responses.

Assign a task to a contractor on Field Service Marketplace

Review contractor responses then assign the task to a contractor on Field Service Marketplace.

Before you begin

Role required: sn_mktplace_core.mktplace_requestor

Ensure that the Field Service Marketplace plugin is active. For more information, see [Activate Field Service Marketplace](#).

The task must be pushed to marketplace first. For more information, see [Push a request to Field Service Marketplace](#).

Procedure

1. Navigate to **All > Field Service > Dispatcher > Dispatcher Workspace**.
2. Select a work order task.
3. Review the responses and assign to a contractor.
 - Select a response to review the details submitted by the contractor.
 - Select **Close response window** to stop requesting from the marketplace and decide on a contractor.
4. Select a contractor.
5. Select **Assign task**.

Use the Response Evaluation Flow

Use the response evaluation flow to set the criteria for automatically assessing contractor responses.

This sets the criteria for assessing contractor responses. This subflow evaluates the responses received from fulfillers and takes a single response as input then performs the necessary calculations based on it.

Any value entered into Response evaluation flow should be a subflow.

Note:

The subflow should accept only response as an input.

There are two default option for Response evaluation flow:

- **Override wait duration** - Automatically overrides the specified wait duration when a bid is being progressively pushed. In scenarios where the first contractor responds before the wait time is up, this setting will bypass the remaining wait time and immediately continue with sending out the next request. This process continues until the bid is assigned or there are no fulfillers left for assignment, whichever comes first.
- **Auto assign** - Automatically assigns the bid to the first eligible contractor to accept.

Note:

Customers can create their own subflows to evaluate responses.

View scheduling history of work order tasks

View the history of the scheduling method of work order tasks that are assigned and scheduled.

Before you begin

Role required: `wm_dispatcher`, `wm_admin`

About this task

View the scheduling history of the work order task with the following details:

- Assigned field service agent.
- Scheduling method used to assign the work order task such as intelligent task recommendation, dynamic scheduling, or manual assignment.
- Date and time of the assignment, un-assignment, or re-assignment.

Note:

When an automated scheduling mechanism conflicts the manual assignment of a work order task, the manual assignment takes the priority. Also, work order tasks may require review because there is a conflict or double booking that occurred from manual and automated scheduling processes.

Procedure

1. Navigate to **All > Field Service Management > Work Order > Work Order Tasks**.
2. Open the task for which you want to view the scheduling history.
3. Click **Work Order Task Scheduling History** tab.

Result

The work order task assignments with the scheduling method appear.

Manage appointments

Book, reschedule, and cancel appointments for available services.

With the Appointment Booking feature, customers can view available appointment windows, make a selection, and book a service appointment from the service portal.

Agents and dispatchers can also book appointments on behalf of customers. Booking an appointment creates a work order and one or more work order tasks, depending on the type of service. Booked appointments can be rescheduled and canceled within the time constraints identified in the configuration.

The system factors in capacity and reservation rules from the Capacity Management module as it presents available slots for booking new appointments or rescheduling existing ones. For more information, see [Capacity and Reservations Management](#).

Related topics

[Appointment booking components](#)

[Configuring Appointment Booking](#)

Manage appointments on behalf of a customer

Agents and dispatchers can book, reschedule, or cancel appointments on behalf of customers.

Agents and dispatchers can manage appointments on behalf of a customer from a work order, work order task, or in the CSM Configurable Workspace.

Booked appointments can be rescheduled and canceled within the time constraints identified in the configuration.

Manage appointments from a work order or work order task

Dispatchers and agents can book, reschedule, or cancel appointments from a work order or work order task on behalf of a customer.

Select an Appointment window

To book or reschedule an appointment for a service, use the Select Appointment pop-up window. To see what time slots are available, choose your preferred day and time, and then submit your appointment request.

In the Select Appointment pop-up window, see appointment availability based on the configurations created for the application and the selected service. This configuration can include:

- Whether the window shows available appointments in a day or week view
- The length of the appointment windows (for example, two hours).
- The start and end times for the appointment windows.
- Recommendation configuration for seismic appointment booking calendar and appointment booking slot recommendation.
- The number of appointments available every day.

Note:

Based on the configuration set for the user's time format, the appointment booking window displays either a 12-hr or a 24-hr clock.

A read-only field at the top of the window displays the currently selected day or week. Use the arrows or the calendar icon at the top of the window to display different dates. Unavailable appointment windows are grayed out and not selectable.

If you have enabled seismic appointment booking calendar and appointment booking slot recommendations, you see a common selection window across all interfaces. The seismic appointment booking calendar adds a **Recommended** banner to suggest appointment slots.

The time zone used for appointment is displayed in the lower corner of the window.

- If the selected location for the service has an associated time zone, that time zone is used.
- If the location doesn't have an associated time zone and the current user does, the user's time zone is used.
- If the location and the current user don't have an associated time zone, the system time zone is used.

Related topics

[Personalize the system time format](#) 

Book an appointment for a customer

Dispatchers and agents can book appointments for customers.

Before you begin

Role required: `wm_dispatch`, `sn_customerservice_agent`, `sn_customerservice.consumer_agent`

You must activate and set up the Field Service Order Configuration, Field Service Task Configuration to book an appointment for work order and work order tasks respectively. For more information, see [Configuring Appointment Booking](#).

About this task

Dispatchers and agents can click "Book Appointment" on the work order or work order task form. This button appears on the form after the work order is qualified.

Note:

The Book Appointment feature isn't available for work orders if the related work order task is assigned to an external group or agent, or if an appointment is already booked for one of the work order tasks in the work order. Similarly, the feature is unavailable for a work order task if an appointment is already booked for the related work order.

Procedure

1. Open either work order or work order task.
 - If you want to book an appointment for a work order, navigate to **All > Field Service > Work Order**, and then open a work order.
 - If you want to book an appointment for a work order task, navigate to **All > Field Service > Work Order Task**, and then open a work order task.

In the work order and work order task pages, the **Template** field indicates the service for which you're booking an appointment. To book an appointment, the template must have an active service configuration.

2. Select **Book Appointment**.
This Select Appointment pop-up window displays available appointments for either a single day or for a week. If no appointments are available, select a different day or week.
3. Use the left and right arrows or the calendar icon to display the desired day or week.
Available appointment time slots for the selected day or week are displayed.
4. Select the desired time slot and then select **Select**.
The appointment is created for the selected date and time.

Result

The **Window start** and **Window end** fields on the work order task are updated with the selected appointment start and end times. The **Estimated work duration** field is updated with the duration of the selected appointment time slot.

Reschedule an appointment for a customer

Dispatchers and agents can reschedule appointments for customers to dispatch agent to address the customer issue based on rescheduled time slot.

Before you begin

Role required: wm_dispatch, sn_customerservice_agent, sn_customerservice.consumer_agent

Setup the **Field Service Order Configuration** to book an appointment for work orders and **Field Service Task Configuration** to book an appointment for work order tasks. For more information, see [Configuring Appointment Booking](#).

About this task

A dispatcher or an agent can reschedule an appointment for a customer from a work order.

Note:

An appointment cannot be rescheduled if the current time is within the reschedule/cancel window specified in the service configuration.

Procedure

1. Open either a work order or work order task.
 - To reschedule an appointment for a work order, navigate to **All > Field Service > Work Order > All Work Orders**, and then select the desired work order.
 - To reschedule an appointment for a work order task, navigate to **All > Field Service > Work Order > All Work Order Tasks**, and then select the desired work order task.
2. Click **Reschedule Appointment** to open the Select Appointment pop-up window. The Select Appointment pop-up window displays the selected day and time of the current appointment.
3. Select a different day and appointment time slot and then click **Select**. The date and time for the appointment are updated. Click the link in the information message to view the appointment details.

Rescheduling an appointment triggers an appointment rescheduled email to the customer.

Cancel an appointment for a customer

Dispatchers and agents can cancel appointments for customers.

Before you begin

Role required: wm_dispatch, sn_customerservice_agent, sn_customerservice.consumer_agent

About this task

A dispatcher or an agent can cancel an appointment for a customer from a work order. The details for the scheduled appointment appear on the work order form.

Note:

An appointment cannot be rescheduled if the current time is within the reschedule/cancel window specified in the service configuration.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Orders**.
2. Open the work order form.

3. Click **Cancel Appointment**.

Note:

If necessary, configure the work order form and add the **Cancel Appointment** button.

Result

The customer receives SMS and email notification that their scheduled appointment is canceled.

Manage appointments in the CSM Configurable Workspace

Agents and dispatchers can book, reschedule, or cancel appointments on behalf of customers for the associated work orders.

Book work order appointment in the CSM Configurable Workspace


Book appointment for an associated work order or work order task to dispatch agent to address the customer issue.

Before you begin

Role required: `wm_qualifier` and `sn_customerservice_agent`, or `wm_qualifier` and `sn_customerservice.consumer_agent`

Setup the **Field Service Order Configuration** to book an appointment for work orders and **Field Service Task Configuration** to book an appointment for work order tasks. For more information, see [Configuring Appointment Booking](#).

Procedure

1. Navigate to **All > Workspaces > CSM/FSM Configurable Workspace**.
2. Click the List icon ()
3. Open either work order or work order task.
 - To book an appointment for a work order, navigate to **Work Orders > Created by me**, and then select the desired work order.
 - To book an appointment for a work order task, navigate to **Work Order Tasks > Created by me**, and then select the desired work order task.
4. To book an appointment:
 - a. Click **Book Appointment**.
 - b. In the **Schedule appointment** dialog box, view available appointment time slots, and then select the desired day and time.
 - c. Click **Schedule**.
The application books an appointment for the work order or the work order task depending upon your selection.

Related topics

[Reschedule work order appointment in the CSM Configurable Workspace](#)

[Cancel work order appointment in CSM Agent Workspace](#)

Reschedule work order appointment in the CSM Configurable Workspace


Reschedule appointment for an associated work order to dispatch agent to address the customer issue based on rescheduled time slot.

Before you begin

Role required: wm_qualifier and sn_customerservice_agent, or wm_qualifier and sn_customerservice.consumer_agent

Setup the **Field Service Order Configuration** to book an appointment for work orders and **Field Service Task Configuration** to book an appointment for work order tasks. For more information, see [Configuring Appointment Booking](#).

Procedure

1. Navigate to **All > Workspaces > CSM/FSM Configurable Workspace**.
2. Click the Lists icon ()
3. Open either work order or work order task.
 - To reschedule an appointment for a work order, navigate to **Work Orders > Created by me**, and then select the desired work order.
 - To reschedule an appointment for a work order task, navigate to **Work Order Tasks > Created by me**, and then select the desired work order task.
4. To reschedule an appointment:
 - a. Click **Reschedule Appointment**.
 - b. In the **Reschedule appointment** dialog box, view available appointment time slots, and then select the desired day and time.
 - c. Click **Reschedule**.
The application reschedules an appointment for the work order.

Cancel work order appointment in CSM Agent Workspace

Cancel an appointment for customer from a work order. Cancelling an appointment, cancels the associated work order.


Before you begin

Role required: wm_qualifier and sn_customerservice_agent, or wm_qualifier and sn_customerservice.consumer_agent

Note:

If necessary, activate the Cancel Appointment UI Action configuration to add the Cancel Appointment button.

Procedure

1. Click the List icon ()
2. Navigate to **Work Orders > Created by me**.
3. Select the work order for which you would like to cancel an appointment.
4. Click **Cancel Appointment**.
The application cancels the appointment and associated work order.

Manage appointments as a customer

Manage appointments for a service from either the Customer or the Consumer Service Portal.

Customers can book, reschedule, or cancel appointments. Booking an appointment from the portal creates a work order for the selected service. Customers can also book appointments for existing work order or work order task from either the Customer or the Consumer Service Portal.

Book an appointment as a customer

Book an appointment for a service from either the Customer or the Consumer Service Portal.

Before you begin

Role required: appointment_booking_user

About this task

Booking an appointment creates a work order for the selected service. After the appointment is confirmed and the work order is scheduled, the customer receives a confirmation email with the appointment details.

Note:

Appointment booking for work order tasks is not supported through the Customer or Consumer Service Portal. You can only reschedule existing appointments for work order tasks.

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. Click **Requests** > **Request Something** in the portal header.
3. From the Categories, select **Services**.
4. Select a service that requires an appointment from the services list.
5. If necessary, enter a detailed description.
6. Click the calendar icon in the **Appointment** field to open the Select Appointment pop-up window.
This window displays available appointments by day or by week.
7. Use the left and right arrows or the calendar icon to display a different day or week.
Available appointment time slots for the selected day or week are displayed. Unavailable dates are grayed out and not selectable. If you do not see any available appointments, select a different day.
8. Click the desired time slot and then click **Select**.

Note:

Based on the configuration set for the logged in user's time format, the appointment booking window will display either a 12-hr or a 24-hr clock.

The **Appointment** field on the record producer displays the selected appointment window day and time.

9. Click **Submit** in the record producer.
The appointment request is submitted and the work order created for the appointment is displayed. The appointment details appear on the work order page in the Appointment widget.

Information about the scheduled appointment is noted in the **Activities** field on the work order. This information includes the appointment day and time and the time zone for the selected location.

When the work order is assigned and accepted by a technician, the customer receives a confirmation email and SMS.

Book an appointment for existing work orders and work order tasks

Book an appointment for an existing work order or work order task from either the Customer or the Consumer Service Portal.

Before you begin

Role required: appointment_booking_user

Setup the **Field Service Order Configuration** to book an appointment for work orders and **Field Service Task Configuration** to book an appointment for work order tasks. For more information, see [Configuring Appointment Booking](#).

About this task**Procedure**

1. Log in to the Customer or Consumer Service Portal.
2. In the portal header, click **Support > Work Orders**.
3. Select the work order or work order task from the list.
4. In the related list, select the work order or work order task number for which you would like to book an appointment.
5. Use the appointment booking widget to schedule an appointment.

Result

When work order task is accepted by the assigned technician, customer receives SMS and email notification that their appointment is confirmed.

View work order and appointment details as a customer

View a list of appointments for the current user on the Customer or the Consumer Service Portal and select an appointment to view the work order details.

Before you begin

Role required: appointment_booking_user

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. In the portal header, click **Support > Appointments** to display the Appointment Listing page.
3. Click **Upcoming** to view a list of upcoming appointments.
4. Click an upcoming appointment to view the details on the associated work order.
If necessary, use the **Appointment** field to reschedule or cancel the appointment.

Reschedule an appointment as a customer

Reschedule a service appointment from either the Customer or the Consumer Service Portal.

Before you begin

Role required: appointment_booking_user

Setup the **Field Service Order Configuration** to book an appointment for work orders and **Field Service Task Configuration** to book an appointment for work order tasks. For more information, see [Configuring Appointment Booking](#).

About this task

The details for the scheduled appointment appear on the work order and work order task forms. Access the appointment information by selecting it from the list of upcoming appointments or by going directly to the respective work order or work order task.

Note:

An appointment cannot be rescheduled if the current time is within the reschedule/cancel window specified in the service configuration.

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. In the portal header, click **Support > Appointments** to display the Appointment Listing page.
3. Click **Upcoming** to view a list of upcoming appointments.
4. Select the appointment to reschedule.
This opens the work order for the selected appointment.
5. Click the **Appointment** field to open the Select Appointment pop-up window.
The Select Appointment pop-up window displays the day or week of the current appointment and highlights the selected time slot.
6. Select a different day and appointment time slot and then click **Select**.
The **Appointment** field displays the new date and time.

Information about the rescheduled appointment is noted in the **Activities** field on the work order or the work order task form. This information includes the original appointment window, the rescheduled appointment window, and the user who made the change.

The user receives a confirmation email that the appointment has been rescheduled.

Result

The customer receives SMS and email notification that their appointment is rescheduled.

Cancel an appointment as a customer

Cancel a service appointment from either the Customer or the Consumer Service Portal.

Before you begin

Role required:

About this task

An appointment cannot be canceled if the current time is within the cancellation time window specified in the service configuration. If within this cancellation time window, the **Cancel** button does not appear in the Appointment field on the work order.

Note:

Canceling an appointment also cancels the associated work order and work order tasks.

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. In the portal header, click **Support > Appointments** to display the Appointment Listing page.
3. Click **Upcoming** to view a list of upcoming appointments.
4. Select the appointment to reschedule.
This opens the work order for the selected appointment.
5. Below the **Appointment** field, click **Cancel**.
The system displays a warning that the appointment and the associated work order will be canceled.
6. Click **Continue** to cancel the work order.

The appointment and work order are canceled. The **Appointment** field no longer appears on the work order form and the customer should receive a confirmation email regarding the cancellation.

Information about the canceled appointment is noted in the **Activities** field on the work order. This information includes the original appointment window, an appointment cancellation message, and the user who made the change.

Customer self service

Enable customers to manage their own information and updates. Enhance convenience and transparency by enabling customers to easily track the status of their work orders, view agent locations, and provide feedback, leading to a more efficient service experience.

Customer or Consumer Service Portal

Use Field Service Management Customer Experience to send notifications to your customers through email and SMS, such as status of their work order tasks, agent's current location, and provide agent feedback.

Related topics

[Configuring Field Service Management Customer Experience](#)

View and add comments to work order tasks from the Customer or Consumer Service Portal

View the details of any work orders and related tasks from the Customer or Consumer Service Portal.

Before you begin

Role required: sn_customerservice.customer and sn_customerservice.consumer

About this task

Customers can view work orders and related work orders tasks of their own or related accounts. They can also add comments to work orders and tasks that are not in closed or canceled state.

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. Click **Support > Work Orders** in the portal header.
3. In the list of work orders related to your account, click a work order number to view its related work order tasks.
4. Click the work order task number to view more information about it.
5. **Optional:** Type a message to the agent and click **Send**.
Your message becomes part of the work order task conversation and appears as additional comments. All responses from agents to your messages are also included in the conversation.

Note:

A work note can be seen only by agents, but both agents and customers can see additional comments.

Track the current location of field service agents

View the current location of agents to track their estimated time of arrival.

About this task

Customers may see multiple geolocation records for a Field Service agent, showing different coordinates but the same timestamp. This is caused when the customer's mobile device caches

location requests and sends multiple at once. This happens when battery save mode is active on the customer's device.

Before you begin

Role required: sn_customerservice.customer and sn_customerservice.consumer

About this task

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. Click **Support > Work Orders** in the portal header to view a list of work orders related to your account.
3. Click a work order number to view its related work order tasks.
4. To track the current location of an agent in the work order task record, click the work order task number.
The map refreshes automatically to display the latest location of an agent.

Track the current location of agents from email or SMS notifications

Track the current location of agents and their estimated time of arrival through email or SMS notifications.

Before you begin

Role required: sn_customerservice.customer and sn_customerservice.consumer

About this task

A link is sent through email or SMS notifications to track the current location of agents and their estimated time of arrival. An email or SMS notification for tracking agents include work task information, such as task number, information about the agent coming to perform the task, estimated time of arrival, and a link that enables you to track the agent.

Procedure

1. Open the SMS or email notification.
2. Select the link provided in the notification to track the agent.
3. If the login page for the Customer or Consumer Service Portal displays, log in.

Result

The agent tracking map for the related work order task opens for you to track the agent.

Collecting agent feedback

Use Field Technician Feedback to collect feedback of field service agents from the customers by sending a survey link through email and SMS.

When agent marks the work order task as complete, the customer receives a survey link through email and SMS to provide feedback. Customers can provide feedback on a field service agent by rating the agent and posting their comments if any.

The system calculates the average rating of an agent and store it in the wm_agent_rating table. The Geolocation tracking map displays the calculated rating of an agent to the customers who are tracking the agent.

The Process agent rating, Daily Data Collection job runs every night to refresh the data so that an updated agent rating is calculated and displayed on the Geolocation tracking map for customers.

Related topics

[Configuring Field Service Management Customer Experience](#)

Preview and sign closed work orders from the Customer or Consumer Service Portal

As a customer, you can digitally sign work orders that are closed and in the Closed Complete or Closed Incomplete state to provide confirmation that the work order should be closed.

Before you begin

The **Use Document Template to generate PDF Summary** configuration must be enabled.

Role required: sn_customerservice.customer and sn_customerservice.consumer

Procedure

1. Log in to the Customer or Consumer Service Portal.
2. Click **Support > Work Orders** in the portal header to view a list of work orders related to your account.
3. Search for and open the work order that you want to preview and sign from the list that is in the Closed Complete or Closed Incomplete state.
4. Click the **Preview and Sign** button.
5. From the Work Order form, review the details of actions performed on related work order tasks.
6. Sign the closed work order.
 - a. Click **Type signature** and enter your name.
 - b. Click **Draw signature** and sign your name.
7. Click **Accept and Confirm**.

Result

The signed PDF summary is generated and attached to the Work Order form. Signatures are attached to the corresponding work order task if there are multiple work order tasks in a work order that are signed.

Complete work orders on the web interface

Enable dispatchers, agents, managers, and field service agents of contractor companies to efficiently track and manage the progress of work order tasks, ensuring that everyone involved can easily update and manage the current status.

Updating task status in web interface

Enable dispatchers, agents, and managers to efficiently track and manage the progress of work order tasks, ensuring that everyone involved can easily update and manage the current status.

Execute work order tasks

After the dispatcher dispatches work order tasks, the ServiceNow system automatically sends the tasks to the assigned agent's queue.

The agent has the option to accept or reject the work order task. If the agent accepts the task, the task state automatically changes to **Accepted**. If the agent who accepts assignment of a work order task does not yet have a personal stockroom, the system creates a personal stockroom automatically with the name **Personal stockroom - <first and last name of agent>**. If the wm_agent role is ever removed from the user, the personal stockroom is deleted.

The examples in this page illustrate the use of tasks with work orders; however, tasks can be used with any [Service Management application](#). The ServiceNow system provides an agent with these methods for managing work order tasks:

- **Agent task map:** The agent task map displays an agent's location and the location of that agent's tasks for the day in a familiar Google Map. The agent map is available when the Service Management Geolocation plugin (com.snc.service_management.geolocation) is active. This map allows for the general scheduling of tasks and provides estimates of an agent's location. Precise agent locations and some automatic features are available when your organization purchases a [Google Maps API for Business](#) key and enters it into the system.
- **Task queue:** If the task map is not available, an agent can manage assigned tasks and their schedule directly from a queue accessed from the application navigator.

Accept or reject a work order task

Accept a work order task if you are ready to work on that task. Reject the task and provide a reason if you cannot work on that task.

Before you begin

Role required: wm_agent

About this task

The task must be in **Assigned** state for an agent to accept or reject the task. Dispatchers can view the task rejection history in the work order tasks.

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me.**
You can view a list of all work order tasks assigned to you.
2. Open a work order task.
3. Accept or reject the task.

Result

In case an agent accepts a successor (downstream) task that is dependent on another task, the successor (downstream) task can be started before the predecessor (upstream) task is complete.

When the agent selects **Start Work**, a message states that open task dependencies exist and asks if the agent wants to start work.

Execute a task from the agent map

As an agent, you can accept or reject tasks assigned to you using features in the agent task map, or take on unassigned tasks near you if your schedule permits.

Before you begin

The Service Management Geolocation plugin (com.snc.service_management.geolocation) must be enabled and the Google Maps Platform key must be entered into the appropriate [Google Maps property](#).

Role required: wm_agent

About this task

You can optimize task routes in the map to have the system determine the most efficient route. Initial routing shows the sequence established when the dispatcher assigned the tasks. Route optimization uses your location information and creates an ideal schedule based on variables

such as location, task duration, travel time, or any [task windows](#). The agent map, which displays color-coded icons for the tasks and your current location, is updated as you complete each task.

Procedure

Navigate to **Field Service > Agent > My Map**.

Tasks that are in one of these states are visible on the map:






- **Assigned**
- **Accepted**
- **Pending Dispatch**
- **Work in Progress**

Agent map symbols

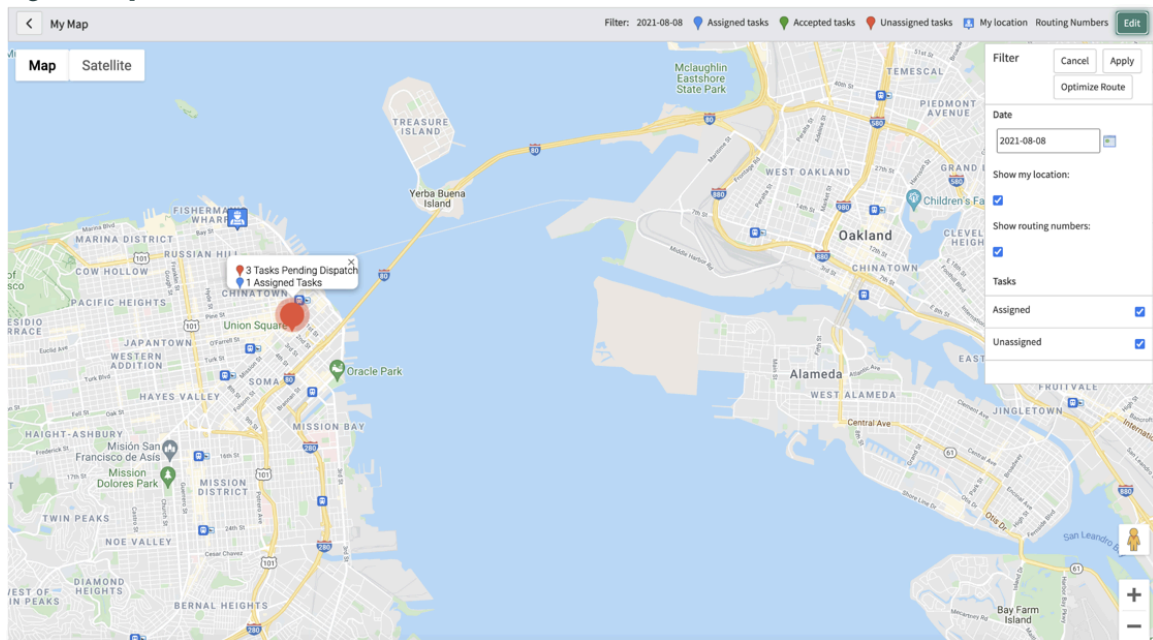
The agent map shows your location, the tasks assigned to you for the current day, tasks that have been accepted, and other tasks that have not yet been assigned.

Task icons are color coded and display automatic sequence numbers indicating the order in which the dispatcher has scheduled the tasks initially.

Task icons

Icon	Title	Description
	Agent	Your current location on the map.
	Assigned	Assigned tasks that have not yet been accepted.
	Accepted	Tasks that have been accepted or tasks that are in progress.
	Unassigned	Unassigned tasks that are awaiting dispatch. These tasks are available for an agent to accept to fill gaps in a schedule.
	Multiple tasks	Multiple tasks clustered by proximity. the ServiceNow system gathers tasks together by proximity into a cluster as you increase the altitude of the map view. Counters in the cluster icon indicate the number of tasks rolled up as the perspective changes.

Agent map



Agent location

The Field Service Management application calculates your location from a set of geographical coordinates.

These coordinates are updated at a predefined interval based on geolocation data returned by your mobile device. Your position at the beginning of the day might be calculated from mobile device coordinates or from the location of the home office, whichever is more current. If you are starting the day completing a task that carried over from the previous day, the system uses the location of that task as your starting position. The system uses your precise location throughout the day to calculate accurate travel times, route your tasks automatically, and schedule fixed time windows.

i Note:

The actions such as start travel, start work, pause work, resume work, close complete, and close incomplete performed either from the desktop application or mobile application generate an entry in the geolocation history table with the following additional details:

- Action description
- Work order task number
- Location timestamp

Manage tasks on the map

The icons in the task map mark the location of tasks assigned to you and any unassigned tasks in your area.

You can manage your tasks and routing from the map, filter the view, and accept unassigned tasks.

View work order task information

Click the task icon on the agent map to view task details.

A summary pop-up window shows the task number and description, the name of the agent if one is assigned to the task, and other important information.

Click a cluster icon to display a summary pop-up listing the number of tasks at that location by **State**. Click any entry to display detailed summaries for all the tasks in a pane beside the map. You can access individual task records from this list.

The following information is included in a summary pop-up window for a single task and in the summary pane for a task cluster:

- **SLA**: the time remaining on an SLA, if one is affected by this task.
- **Priority**: the task priority by number, with **1** being the highest priority and **5** being the lowest.
- **Skills needed**: the agent skills needed to perform the work.
- **Parts needed**: the parts needed to perform the work.

Click the task number link in the summary pop-up or in the summary pane to display the task in a record pop-up. Use the controls under **Related Links** to accept or reject a task and to update your work status by starting or completing a task.

Customize the display of task information on the agent map

Configure the agent map to display assigned and unassigned tasks for an agent on the specified date. Display agent location and routing numbers for tasks dispatched on that day.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **All > Field Service > Agent > My Map**
2. Click **Edit**.
3. Change the filter settings as needed.
4. Do one of the following:
 - To apply the changes to the configuration, click **Apply**.
 - To cancel the changes made to the configuration, click **Cancel**.
 - To optimize the agent's task route, click **Optimize Route**.

Start work

What to do when you are ready to begin traveling to the first task.

Before you begin

Role required: wm_agent.

About this task

As a field service agent, to provide a more accurate representation of the work order task activities, you can use two sub states "On Route" and "Onsite Arrival," to document your travel time and on-site activities.

Procedure

1. Open the task record from the map.
2. Click **Start Travel** when you begin your travel to work on the task.

This is mandatory if the **Scheduled travel start** field is completed.

- When the agent clicks **Start Travel**, the customer receives a notification email and SMS that an agent is coming.
- A sub state **On Route** is automatically set to determine that you have started travel for the work order task.
- The **Check-In** option appears when `Enable/Disable Onsite Arrival Check-in for Agents` property is enabled. For more information, see [Global domain configurations](#) and [Onsite arrival and check-in](#).

3. Open the task record and do either of the following to mark your arrival or check-in at the work location.

- To perform any task related activities before starting work, click **Check-In**

Note:

At this stage, a notification is sent to the customer, informing them that the agent has arrived on-site and is ready to begin the work. For more information, see [Customer notifications for work order tasks](#). The substate **Onsite Arrival** is automatically set, indicating that you have reached your travel destination for the work order task.

- To start work directly and check-in automatically, click **Start Work**.
- The **Actual work start** field is automatically updated with the current system time, marking the beginning of the task.
- The work order task's state changes to **Work In Progress** to reflect that the task is actively being worked on.
- The **Actual travel duration** field is automatically calculated by the system. It measures the time difference between the **Actual travel start** and **Actual onsite arrival** timestamps, unless manually set.
- If the system properties `work.management.allow.auto.timecard` and `work.management.allow.travel.task.timecard` are enabled, time cards are automatically created. These time cards capture the duration of your work on the task, including the task's travel time.
- The generated time card for the task's travel duration is stored under the **Time Worked** related list. This provides a record of the time spent traveling to the task location.

4. When the work is done, open the task record and add a work note describing what you did to complete the task.

5. Click **Close Complete** under **Related Links**.

The system redraws the map and removes the icon for the completed task. The next accepted task in the route is relabeled as number **1**. The agent icon appears at the site of the last location update.

Result

The cumulative amount of time worked on the task is captured in the **Actual Work Duration** field. This total includes the time you started working on the task until you closed work on the task, excluding any time paused on the work.

View task information on the classic mobile UI map

The agent map on the classic mobile interface displays the agent's location, tasks assigned to the agent for the current day, accepted tasks, and unassigned tasks.

Before you begin

Role required: `wm_agent`

About this task

Use the filter to change the items visible on the agent map. Show and hide tasks or routing sequence numbers, change the location, or change the date to view the tasks for a different day.

Procedure

1. In the mobile interface, navigate to **Field Service > My Map**.
2. Click the gear icon in the map header to display the filter settings.
3. Change the filter settings as needed.

Option	Description
On	Displays the current date. Click the arrow to display the calendar and select a different date.
Show Assigned Tasks	All assigned tasks are displayed by default. Disable the switch to hide assigned tasks.
Show My Location	Displays your current position on the map with the agent location icon. Disable the switch to remove this icon from the map. If the system cannot locate you automatically by mobile device, it uses the location of a continuing task or the home office.
Show Routing Numbers	Displays the routing numbers on tasks dispatched for the date selected in the calendar. Disable the switch to hide the routing numbers.
Show Unassigned Tasks	All unassigned tasks are displayed by default. Disable the switch to hide unassigned tasks.

4. Click **Save** and then click the left arrow to return to the map.

Pick up an unassigned task

Agents can assign themselves nearby unassigned tasks directly from the agent task map.

Before you begin

Role required: wm_agent.

About this task

Agents can assign themselves nearby unassigned tasks directly from the agent task map. This might be necessary to complete a schedule when a another task is cancelled or a fixed [task window](#) cannot be met. Make sure the task's scheduled start time and duration fit into your route and that the travel time is realistic. If the task does not fit into the available time slot in your schedule, the ServiceNow system blocks the assignment and displays a warning.

Procedure

1. To pick up an unassigned task, click a red icon near you and open the task record.
2. Under **Related Links**, click **Assign to me**.
If the task can be assigned to you, one of the following occurs:

- If you belong to more than one assignment group, you are asked to select a group. Only the assignment groups that belong to the dispatch group of the task are displayed.
- If you belong to only one assignment group, the system assigns the task to you and enters your assignment group in the Work Order Task form.

If the assignment is allowed, the task state changes to **Accepted**, and the icon on the map turns green. In the task form, the **Start Travel** and **Start Work** links appear under **Related Links**.

Execute a task from the queue

If the agent task map is not used in your organization, you can manage assigned tasks from the task queue.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me**.
2. When parts are delivered or picked up from a stockroom, acknowledge the delivery of parts.
 - a. Open a work order task.
 - b. In the **Transfer Orders** related list, open the transfer order.
 - c. Open the related transfer order and access a record in the **Transfer Order Lines** list.
 - d. Acknowledge the delivery by clicking **Receive** or **Deliver** based on the part's location.
3. Click **Start Travel** when initiating travel for the task.

Note:

If the **Scheduled travel start** field is completed, this step is mandatory.

- Upon clicking **Start Travel**, a notification email and SMS are sent to the customer, signaling the agent's arrival.
 - A sub-state, **On Route**, is automatically set, indicating the commencement of travel for the work order task.
 - The option to **Check-In** appears when **Enable/Disable Onsite Arrival Check-in for Agents** property is enabled. For more information, see [Global domain configurations](#) and [Onsite arrival and check-in](#)
4. Open the work order task and do either of the following.
 - Select **Check-In** to notify the customer of your arrival and perform any pre-work activities.

Note:

At this stage, a notification is sent to the customer, informing your on-site arrival and ready to begin the work. The substate **Onsite Arrival** is automatically set, indicating that you have reached your travel destination for the work order task. Additionally, the check-in status is stored in the database.

- Select **Start Work** to automatically check-in and commence work directly.

- The **Actual work start** field is automatically updated with the current system time, marking the beginning of the task.
- The work order task's state changes to **Work In Progress** to reflect that the task is actively being worked on.
- The **Actual travel duration** field is automatically calculated by the system. It measures the time difference between the **Actual travel start** and **Actual onsite arrival** timestamps, unless manually set.
- The generated time card for the task's travel duration is stored under the **Time Worked** related list. This provides a record of the time spent traveling to the task location.
- If the system properties `work.management.allow.auto.timecard` and `work.management.allow.travel.task.timecard` are enabled, time cards are automatically created. These time cards capture the duration of your work on the task, including the task's travel time.

5. When work is complete, [record any asset usage](#).

6. Add a description of the work you did to the **Work notes** field.

This is required to close the task.

7. [Close the task](#).

Result

The cumulative amount of time worked on the task is captured in the **Actual Work Duration** field. This total includes the time you started working on the task until you closed work on the task, excluding any time paused on the work.

Related topics

[Customer notifications for work order tasks](#)

Record an incidental expense

Record incidental expenses associated with your business travel through the Field Service application to execute work order tasks.

Before you begin

Role required: admin, wm_agent.

About this task

Log incidentals to manage your expenses such as car rental cost, mileage, and vendor costs that you spend to execute your work order task at any point during the task life cycle. You can attach a receipt for a logged incidental.

For example, field service administrators might create an incidental in the Pending state before an agent begins work, based on an anticipated expense. Agents might create incidentals in the Incurred state as expenses arise during work.

Role required: wm_admin or wm_agent.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Order Tasks**.
2. Open a work order task for which you want to log incidentals.
3. In the **Service Management Incidentals** related list, click **New**.
4. Fill in the fields as described in the following table.

Incidental expense form fields

Field	Description
Service order task	[Read-only] Task from which the incidental was created.
Type	Select incidental type: <ul style="list-style-type: none"> ○ Mileage for traveling to and from the task site. ○ Car Rental for renting the car. ○ Vendor Cost for all vendor-related costs on a contract.
Cost	Total cost of the incidental. <ul style="list-style-type: none"> ○ From the Currency field, select the currency for the expense. ○ Enter cost: <ul style="list-style-type: none"> ▪ If the type is Mileage, the cost is read-only and is automatically calculated by multiplying Quantity and Cost per mile. ▪ If the type is Car Rental, enter the total cost of rental expenses.
Quantity	Number of units for the incidental. This field is required if the type is Mileage ; enter the number of miles traveled. This field is hidden if the type is Car Rental .
State	Select the status of the expense: <ul style="list-style-type: none"> ○ Incurred when the expense has already occurred ○ Pending when the expense has not yet occurred.
Cost per mile	Average cost of transportation per mile. This field is visible only if the type is Mileage .
Description	Helpful information about the incidental expense.

5. Click **Submit**.

Result

An incidental record is created, the system generates an expense line if the following conditions are met:

- The state is **Incurred**.
- The type is not **None**.
- The cost is greater than zero.

i Note:

The expense line is deleted if any of these conditions change.

Field service administrators and agents can view all incidentals by navigating to **Field Service > Agent > Incidentals**.

Complete a questionnaire for a work order or task

Complete a questionnaire for a work order or work order task. You can access and complete questionnaires from the Work Order or Work Order Task forms.

Before you begin

Role required: wm_agent

About this task

If one or more questionnaires are available for a work order or work order task, the **Questionnaires** button appears at the top of the form. Clicking this button displays the questionnaires.

Agents can also navigate to **Self-Service > My Assessments & Surveys** to see questionnaires for work orders and work order tasks.

i Note:

Users who can view a work order or task can also view associated questionnaires. Users who are assigned to a work order or task can complete associated questionnaires.

Procedure

1. Open a work order or work order task.
2. Click **Questionnaires**.
The Questionnaires page opens and displays the questionnaires associated with the task record. Each questionnaire is listed as an individual tile.
3. On the questionnaire tile, click **Start**.
The questionnaire opens in the window.
4. Complete the questionnaire.
5. If finished, click **Submit**.

i Note:

If you need more time, you can click **Save** so that you can later return to the questionnaire.

Result

The questionnaire is submitted. You cannot make any changes to the questionnaire. You can only view it.

What to do next

Complete any remaining work and then close the task.

Related topics

[Configuring survey-based work order questionnaires](#)

Close a work order task as complete

Only agents can close work order tasks assigned to them.

Before you begin

Role required: wm_agent

About this task

If the caller's problem was fixed or resolved, use the **Close Complete** option.

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me**.
2. Open a work order task.
3. Add information to the **Work notes** field.
The notes should include a description of the work done and any other helpful information.
4. **Optional:** Enter a date and time earlier than the current date and time in the **Actual Work End** field.

(Optional) You cannot add a date and time later than the current date and time.

If you do not enter a date and time, the ServiceNow system adds the current date and time automatically when you click **Closed Complete**.

5. Click Close Complete.

- The status of all unused parts automatically changes to **In-Stock**.
- The state of the parent work order automatically changes to **Closed - Complete** if all work order tasks on the work order have a state of **Closed - Complete** or **Canceled**.

Result

The customer receives SMS and email notification that the work order task is completed.

Close a work order task as incomplete

Close a work order task as incomplete if there is work pending on the task.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me**.
2. Open a work order task.
3. Click **Close Incomplete**.
The **Close Incomplete** pop-up appears.
4. Do one of the following.
5. In the **Reason for the incomplete closure** field, enter a reason for not completing the task.
This information is copied to the **Work Notes** field on the work order task form.
6. Click **OK**.
The status of all unused parts automatically changes to **In-Stock**.

The parent work order state changes based on the following conditions:

If	The work order state changes to
All work order tasks are in the Closed-Complete or Canceled state and at least one work order task is in Closed-Incomplete state.	Closed - Incomplete
Only one work order task is associated with a work order and that task generates a follow-on task, which is in Draft state.	Awaiting Qualification
More than one work order task is associated with a work order and one or more those tasks generate a follow-on task, which is in Draft state.	Work in Progress
All follow-on tasks generated from any of the work order tasks are in Closed Complete state.	Closed Complete

If	The work order state changes to
<p>Note: The task that generated the follow-on task will be in Closed Incomplete state.</p>	

Note:

Additionally,

Closing child Work Order task also closes parent work order.

This business rule is configured on parent (sm_task) table and runs when a (sm_task) record's state changes. There is logic hardcoded to rollup the state change to its parent.

If this behavior is not desired for work orders you can implement the following condition on this business rule to ensure this business rule does not run for (wm_task/wm_order) records.

Condition = current.sys_class_name != 'wm_task' && current.sys_class_name != 'wm_order'.

Cancel a work order task

The **Cancel Task** option is appropriate if a work order task is no longer necessary or is a duplicate of another work order task.

Before you begin

Role required: wm_agent

About this task

Work orders and work order tasks cannot be canceled while in **Closed Complete** or **Closed Incomplete** state. When you cancel a work order task, the ServiceNow system automatically:

- Cancels all associated transfer orders if the items have not already shipped. If the items have shipped, the system blocks the cancellation of the task until the parts are delivered.
- Removes all predecessor (upstream) and successor (downstream) dependencies.
- Changes the state of the parent work order to **Canceled** if all associated work order tasks are **Canceled**.
- Removes all part requirements without a transfer order line.
- Retains all asset usage information.
- Sends a notification email and SMS to the customer about the cancellation of work order task.

Work order tasks can be canceled by users with these roles:

User roles

Role	Description
Initiator	Can cancel a work order, which automatically cancels all associated work order tasks.
Qualifier	Can cancel work orders and work order tasks.
Dispatcher	Can cancel work orders and work order tasks.
Agent	Can cancel work order tasks assigned to them.

User roles (continued)

Role	Description
Field Service Management Administrator	Can cancel any active work order or work order task at any time.

Procedure

1. Navigate to **All > Field Service > Work Order > All Work Orders**.
2. Open a work order.
3. Open a work order task.
4. In **Work notes**, enter a cancellation reason.
5. Click **Cancel Task**.

An error message appears if text is not entered into the **Work Notes** field.

For traceability, auditing, and possible **deletion**, field service administrators need to know the reason why a work order or work order task was canceled.

Result

The customer receives an SMS and email notification that the work order task is canceled.

View asset usage

The Field Service Management application tracks the consumable and non-consumable parts that are used or changed during the execution of work order tasks.

Before you begin

Role required: wm_agent

About this task

The **Asset Usages** related list on the Work Order Task form displays the assets that are used during the execution of a task and also any existing assets that are removed from the task location.

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me**.
2. Open a work order task.
3. Select the **Asset Usages** related list.

The possible statuses of an asset usage are listed in the following table.

Asset usage status settings

Setting	Description
Used	When an agent records the use of an asset, the asset is added to the Asset Usages related list with a status of Used . Non-consumable assets are marked as being In Use and assigned to the caller identified on the work order. Consumable assets are marked as Consumed .

Setting	Description
Not used	<p>When a transfer order line is delivered to an agent, a new asset usage record is created with a status of Not Used.</p> <p>If the agent does not use the asset and the work order task is closed, the asset usage record remains Not Used. The asset is marked as In Stock Available in the agent's personal stockroom.</p>
Removed	<p>When an agent records the removal of an asset, the asset is added to the Asset Usages related list with a status of Removed.</p> <p>If an asset is removed because it is not working, it should be marked as Defective. If an asset is not faulty, it must be marked as Available.</p>

Track the removal of an asset from a task location

Track the status of an asset that you removed in a work order. You can track the status as you're doing the task from the task location.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me**.
2. Open a work order task.
3. In the Asset Usages related list, display the Asset Usage form by selecting **Remove Asset**. The **Service order task** field displays the task number of the work order, and that the status of the asset is set to **Removed**.
4. In the **Model** field, select a model. The **Quantity** and **Asset** fields are enabled or inactive depending on what you selected in the **Model** field.
5. In the **Quantity** and **Asset** fields, enter the information about your consumable and non-consumable assets:
 - If the model is consumable, enter the quantity that was removed in the **Quantity** field.
 - If the model is non-consumable, select the asset that is listed in the **Asset** field.
6. In the **Drop off stockroom** field, select the drop-off location where you want to drop-off the asset. To learn more about the drop-off list, see [Use drop off lists](#).
7. In the **Removed part status** field, select the status of the part that you want to remove. If the part is faulty, select **Defective**. If it's not faulty, select **Available**.
8. Select **Submit**.

Result

The removed asset is added to the Asset Usages related list with a status of **Removed**.

Record the assets used during a work task

Record any assets that you use during the execution of a task.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me.**
2. Open a work order task.
3. In the **Asset Usages** related list, click **Use Asset** to display the Asset Usage form.
The **Service order task** field displays the work order task number and the **Status** of the asset is set to **Used**.
4. Select the model of the asset in the **Model** field.
If the selected model is a consumable, the **Asset** field becomes read-only.
5. Enter the quantity or specific asset removed depending on whether the selected model is consumable.
 - If the selected model is consumable, enter the quantity that was removed in the **Quantity** field.
 - If the selected model is non-consumable, select the specific asset listed in the **Asset** field.
6. Click **Submit**.

Result

The asset that was used is added to the **Asset Usages** related list.

Track the replacement of an asset from a task location

Track the status of an asset that you replaced with another asset in a work order. You can track the status as you're doing the task from a task location.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **All > Field Service > Agent > Assigned to me.**
2. Open a work order task.
3. In the Asset Usages related list, display the Asset Usage form by selecting **Remove Asset**.
The **Service order task** field displays the task number of the work order, and that the status of the asset is set to **Removed**.
4. In the **Model** field, select a model.
The **Quantity** and **Asset** fields are enabled or inactive depending on what you selected in the **Model** field.
5. In the **Quantity** and **Asset** fields, enter the information about your consumable and non-consumable assets:
 - If the model is consumable, enter the quantity that was removed in the **Quantity** field.
 - If the model is non-consumable, select the asset that is listed in the **Asset** field.
6. In the **Drop off stockroom** field, select the drop-off location where you want to drop off the asset.
7. In the **Removed part status** field, select the status of the part that you want to remove.
If the part is faulty, select **Defective**. If it's not faulty, select **Available**.
8. In the **Replacement asset** field, select the asset that you want to replace.
9. In the **Replacement model** field, select the model to replace the asset that you removed.
10. Select **Submit**.

Result

Two asset records are added to the Asset Usages related list. The removed asset is added to the Asset Usages related list with a status of **Removed**. The replaced asset is also added to the Asset Usages related list.

Use drop off lists

Agents use drop off lists to return items that are in their personal stockroom.

An item may need to be returned because it is defective or not needed to complete a work order task. Agents can create a drop off list of items to send the items to a different stockroom using a transfer order. Agents also have the option to physically drop items off at a stockroom and note the drop off in the Field Service Management application.

An asset must meet the following criteria to be added to an agent's drop off list:

- Located in the agent's personal stockroom
- **Drop Off** check box selected on the transfer order record
- One of the following:
 - Substate is **Defective**
 - Asset was not used and the work order task is in **Closed Complete** state

Create a drop off list

Agents can create a drop off list of assets at any time.

Before you begin

Role required: wm_agent

About this task

As an example, the agent might have several assets that were removed when completing a work order task and all of the assets need to be returned to a different stockroom.

After creating a drop-off list, there are two ways to add items to the list.

- Use the **Add Defective** button to add items that are in their personal stockroom with a substate of **Defective**. For more information about defective items, see [Recording Asset Usage](#).
- Create a transfer order line for an item in the personal stockroom.

The item cannot have a substate of **Reserved** or **Defective**, and cannot already be included on another drop off list.

Procedure

1. Navigate to **All > Field Service > Pick Up/Drop Off > Create Drop Off List**.
2. Select a **To stockroom**.
3. Click **Submit**.
4. Do one or both of the following:
 - Click **Add Defective** to add all defective items in your personal stockroom to the drop off list.
 - In the **Transfer Order Lines** related list, click **New**, select a **Model**, and click **Submit**.

Only items in an agent's personal stockroom that are not reserved, not defective, and not included on another drop off list are available for selection.

View a drop off list

Agents can view a consolidated list, grouped by stockroom, of all items that have been added to drop off lists by all agents.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **All > Field Service > Pick Up/Drop Off > All Drop Off Lists**.
2. Expand a group by clicking the arrow beside the group name.

Drop off an asset

Agents can physically drop assets off at a stockroom.

Before you begin

Role required: wm_agent

About this task

If a dropped-off item was not used, it is automatically placed in **In Stock - Available** state. If a dropped off item is defective, it is automatically placed in **In Stock - Defective** state.

Procedure

1. Navigate to **All > Field Service > Pick Up/Drop Off > My Drop Off List**.

The **Transfer Order Lines** list is displayed in **DropOffList** view.

2. **Optional:** Click text in any column to obtain more information about, for example, the transfer order or stockrooms.
3. After physically dropping off the items, select the check box beside the item, then go to the **Actions** choice list and select **Drop Off**.

Record the time worked on a work order task

Manage and record time worked on work order tasks and activities. Time recorded entries automatically generate time cards and time sheets for approval by managers.

Record time worked for a task or activity manually

Agents can record time worked on a work order task as well as time spent on other activities.

Before you begin

Role required: wm_agent

About this task

An agent can record time worked directly from a work order task by selecting **Record Time** from the Work Order Task form. An agent can record time regardless of the work order task state. An agent can also record time spent on other activities from the **Time Worked** list by creating a time worked record, recording the time, and selecting a category.

i Note:

If multiple rate cards are enabled, agents can also select rate types when creating time worked entries.

A time card is created for each category type and work order task. The total hours recorded on each time card are then recorded on the current time sheet in the **Time Cards** related list.

Procedure

1. To record time worked for a task or an activity:
 - Navigate to a work order task and select **Record Time**. Selecting **Record Time** opens a **Time Worked** form with the **Task** and **User** field already populated.
 - Navigate to **Time Sheets > My Time Worked** and select **New**. This opens a **Time Worked** form with the **User** field already populated.
2. If necessary, select the work order task in the **Task** field.
3. If necessary, select the **Work Date**.
This field defaults to the current date.
4. Select a **Category** for the time being recorded.
5. Select a **Rate type** for the time being recorded.
When multiple rate types are enabled for Field Service Management, agents can specify multiple rate types for time worked against a task.
6. Fill in the **Time worked**.
7. Provide any additional information in the **Comments** field and select **Submit**.
The **Time Worked** form is saved and added to the **Time Worked** list. If your entry is the first time worked entry for the selected category, a time card is created for that category and the time worked record is added to the card. If a time card for the category exists, the time worked record is added to that card.

Pause a work order task

Record a break from a work order task in the Field Service application if you are unable to continue the work for any reason. You can resume the work order task when you start working on it again. The system automatically tracks and calculates the actual time taken to complete the task even though you worked at different intervals.

Before you begin

The system administrator can choose to enable the `work.management.allow.auto.timecard` property so that time cards are automatically created when you start working on a task. The data of the time cards is stored in [metric_instance] table and is controlled by `work.management.allow.auto.metric_cleanup` system property.

Role required: wm_agent

About this task

The work order task must be in the Work in Progress state to pause the timer.

Procedure

1. Navigate to the work order task that you want to pause.
2. Click **Pause Work**.
The button toggles to **Resume Work** automatically.
3. Click **Resume Work** when you are ready to work on the activity again.

Result

Each time you pause or resume work on the task, a timestamp is captured in the activity stream and the actual time you worked on the task is automatically calculated. An entry for the time worked is created in the **Time Worked** related list.

Review time recorded for a task

Agents can review the time recorded for work order tasks.

Before you begin

Role required: wm_agent

About this task

The **Time Worked** related list on the Work Order Task form displays the Time Worked records that have been created for the work order task. From this related list, field service agents can review their recorded time and also delete records.

Procedure

1. Navigate to the desired work order task.
2. Go to the **Time Worked** related list.
This list displays the Time Worked records that have been created for this work order task.
3. To view a record, click the **Category**.

Modify or delete time worked entries

Agents can modify and delete time worked entries before a time sheet is approved.

Before you begin

Role required: wm_agent

About this task

Modifying or deleting entries updates existing time cards and generates an updated time sheet.

Note:

Do not manually edit time cards. Instead, edit the original time worked entries, which generates updated time cards and time sheets.

Procedure

1. Navigate to **All > Time Sheets > Time Recording > My Time Worked**.
2. Select the time worked entry you want to modify or delete.
3. Either modify or delete the entry.
 - To modify the entry, make changes to the desired fields and select **Update**.
 - To delete the entry, select **Delete**.

Review and submit a time sheet

Agents can review and submit time sheets to managers for review and approval.

Before you begin

Role required: wm_agent

About this task

The total hours worked for each category are recorded on the time card and on the time sheet. From the time sheet, you can see total hours by day and by category.

Procedure

1. Navigate to **All > Time Sheets > My Time Sheets > Current Time Sheet**.
2. If desired, review the time cards associated with the time sheet in the **Time Cards** list.

3. Click **Submit Time Sheet**.

The time sheet is submitted to the manager for approval. The state of the time sheet changes from **Pending** to **Submitted** and the form becomes read-only.

Create a signed PDF summary for a work order

Request that customers digitally sign and confirm a closed work order. A PDF summary of the signed work order is then created.

Before you begin

Make sure that PDF summaries are enabled in Field Service Management

Role required: wm_agent

About this task

When a work order is closed, you are notified with a link to the work order. Open the work order to request a signature from the customer.

Procedure

1. When you receive a message about the completed work order, click the link in the message to open the Work Order form.
You can also find closed work orders by navigating to **Field Service > Work Order > All Work Orders**.
2. In the title bar of the Work Order form, click **Sign & Confirm**.
3. In the Signature Pad window, ask the customer to enter their name in the **Name** field.
4. Ask the customer to sign their name in the **Signature** field.
5. Click **Accept**.

Result

The signed PDF summary is generated and attached to the Work Order form.

Related topics


[Signed PDF summaries for closed work orders](#)

Contractor Portal

Use Field Service Contractor Portal to manage work order tasks.

Field Service Contractor Portal enables managers and field service agents of contractor companies to manage and work on the assigned work order tasks.

You can make your ServiceNow Field Service Contractor Portal instance accessible from a company-branded or custom URL. For more information about customizing URLs, see [Associating custom URLs to your instance](#) .

If you have activated the Service Portal User Criteria Support plugin and set its property to true, you must assign permissions to different roles to enable access to the Field Service Contractor Portal. For more information, see [Apply user criteria to a page, widget, or widget instance](#) .

Related topics

[Contractor dashboard](#)

[Configuring contractor capabilities](#)

Log in to the Field Service Contractor Portal for the first time

Select the link in the email that you're sent after you're onboarded to change your password so you can log in for the first time.

Before you begin

Role required: none

Procedure

1. Navigate to your email inbox.
2. In the onboarding email message, select the **Reset a password** related link.
The **Password Reset** dialog box displays.
3. Enter your new password in the **New Password** field.
4. Re-enter your new password in the **Retype Password** field.
5. Select **Reset Password**.
The **Field Service Contractor Portal** login page displays.
6. Enter your user ID in the **User name** field.
7. Enter your new password in the **Password** field.
8. Select **Login**.

Onboard agents on the Field Service Contractor Portal

Onboard a Field Service agent so the contractor company can assign outsourced work order tasks to be performed at the customer location by that agent.

Before you begin

Role required: wm_ext_manager

Procedure

1. In a web browser, enter this text in the address bar: `instance.service-now/fsmcp` where *instance* is the first part of an instance URL.
2. Click **Requests > Onboard Agent** in the header menu.
3. On the form, fill in the fields.

Onboard Agent form

Field	Description
First name	Agent's first name.
Last name	Agent's last name.
User ID	Auto-populated unique identifier for this user. The user ID follows the format <code>firstname.lastname</code> .
Assignment Group	Group name to which the agent belongs. For example, external.
Email	Email address of the agent.
Company	Name of the employer.
Mobile phone	Mobile number of the agent.

Field	Description
Business phone	Phone number of the agent.
Additional Manager	Option to assign additional manager role to the agent to handle managerial activities in the absence of primary external manager.
Geolocation tracked	Option to enable tracking the real-time location of agent.

4. Click **Submit.**

Result

An external agent of the contractor company is onboarded and the internal manager receives an approval request for the agent.

What to do next

The internal manager receives a request to approve the onboarding of an agent. For more information, see [Approve or reject requests for onboarding agents](#).

Approve or reject requests for onboarding agents

Review external agent requests that are assigned to you for approval and determine whether to accept or reject them.

Before you begin

Role required: wm_contractor_manager_int, wm_admin, and admin

About this task

Whenever a manager of the contractor company onboards a field service agent, the request goes to the internal manager of the organization for approval process.

Procedure

- 1. Navigate to **All > Self-Service > My Approvals**.**
- 2. Click a requested item from the **Approvals** list for which you want to approve the agent.**
- 3. Click the **Onboard a new Contractor Agent** link in the **Approval-Requested Item** request form to review agent details.**
- 4. Process the request.**
 - To approve the agent, Click **Approve**.
The newly onboarded agent is approved by the parent company. External managers can assign the work order tasks to the agent.
 - To reject the agent, Click **Reject**.
The newly onboarded agent is rejected by the parent company. External managers cannot assign the work order tasks to the agent.

View an agent profile on the Field Service Contractor Portal

As a manager of a contractor company, you can view the profile information of all the agents in your teams.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

About this task

Agents can view and edit only their own profile information.

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **Agents**.
3. From the **Service Organization External Staffs** list, click the agent profile that you want to review.
4. Review the agent profile information.

Assign additional manager assignments to an agent

As a manager of a contractor company, you can assign additional manager role to the agents in your teams.

Before you begin

Role required: wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **Agents**.
3. From the **Service Organization External Staffs** list, click the agent profile to whom you want to assign manager role.
4. Click **Additional manager assignments**.
5. Select all the groups from the list you want to assign the agent as a manager.
6. Click **Save**.
7. Click **Save**.

Offboard agents on the Field Service Contractor Portal

Offboard agents of the contractor company to terminate their services.

Before you begin

Before offboarding an agent, ensure that agents do not have items pending with the following status:

- Tasks in the **Work In Progress** state.
- Transfer orders in the **In Transit** state
- Parts in the **In Stock** state or **Pending Transfer** sub state in their personal stockroom.

Role required: wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > Agents**.
2. From the **Service Organization External Staffs** list, select the agent that you want to offboard.
3. Click **Offboard Agent**.

Result

The agent is offboarded successfully.

After receiving the offboarding request:

- Assigned and accepted tasks from the agent's work list are reassigned to the manager who initiated the offboarding request.
- The offboarding agent cannot be assigned new tasks
- New transfer orders cannot be created in the agent's personal stockroom
- The agent cannot log in to the Field Service Contractor Portal.
- Email or SMS notifications are no longer sent to the agent.
- The agent is automatically removed from the additional manager role and responsibilities.

Work order tasks on the Field Service Contractor Portal

Organizations outsource their work order tasks to the contractor companies in the Field Service to perform required jobs at a customer location. Managers and agents of contractor companies use the Field Service Contractor Portal to view and manage the work order tasks assigned to them.

Managers and agents can perform the following activities:

- Managers can view the work order tasks assign to them and choose to accept or reject the assigned task. If the manager rejects the task, the state of the task changes to Pending dispatch or Pending assignment.

In the meantime, the next appropriate group is identified and assigns this task to the manager of that group. If the system cannot identify another qualified group, the task remains in the Pending dispatch state so that the dispatcher can manually assign the task.

- Managers can reassign work order tasks to their agents.
- Agents can view the work order tasks assigned to them and choose to accept or reject them. If an agent rejects the task, it goes back to the agent's manager. The manager can reassign the task to another appropriate agent from the same group, accept the request and work on the task, or keep the task in the Pending assignment state.
- Managers and agents receive email notifications for each work order task assignment that include a link to use to open and view the work order task details.

Assign outsourced work order tasks

Managers of contractor companies can assign outsourced work order tasks to be performed at the customer location to their agents or to themselves.

Before you begin

Role required: wm_ext_manager

About this task

Outsourced work order tasks are always automatically assigned to the managers of the contractor companies.

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **My Lists > My Tasks > All Tasks**.
3. Click a work order task in the list.
4. On the Work Order Task form, assign the work order task.

- To work on the task yourself, click **Accept**.
- To assign the task to an agent, select one from the **Assigned to** list.
- To cancel the task, click **Reject**.

If you reject working on the task, its state changes to pending dispatch or pending assignment so it can be reassigned to another qualified group.

5. Click **Save**.

Result

If you have assigned the task to an agent, the agent receives an email notification about the assignment.

Accept or reject assigned external work order tasks

As a manager or field service agent of a contractor company, you can accept tasks assigned to you through the Field Service Contractor Portal.

Before you begin

The task must be in **Assigned** state for you to be able to accept the task.

Role required: wm_ext_agent and wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **My Lists > My Tasks > All Tasks**.
3. Open a work order task from the list.
4. Process the work order task.
 - To accept working on the task, click **Accept**.
 - To reject the task, click **Reject**.

If an agent rejects the task, it is assigned back to the agent's manager to take further actions, such as reassigning the task to another agent or the manager accepting to work on the task.

What to do next

After accepting the task, you can start working on it. For more information about executing tasks, see [Execute and track external work order tasks](#).

Execute and track external work order tasks

Execute and track the time required for work order tasks that you have accepted.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **Start Travel** when you begin your travel to work on the task.

This is mandatory if the **Scheduled travel start** field is completed.

- When the agent clicks **Start Travel**, the customer receives a notification email and SMS that an agent is coming.
- A sub state **On Route** is automatically set to determine that you have started travel for the work order task.
- The **Check-In** option appears when `Enable/Disable Onsite Arrival Check-in for Agents` property is enabled. For more information, see [Global domain configurations](#).

3. Open the task record and do either of the following to mark your arrival or check-in at the work location.

- To perform any task related activities before starting work, click **Check-In**

Note:

At this stage, a notification is sent to the customer, informing them that the agent has arrived on-site and is ready to begin the work. For more information, see [Customer notifications for work order tasks](#). The substate **Onsite Arrival** is automatically set, indicating that you have reached your travel destination for the work order task.

- To by-pass the check-in option and start work directly, click **Start Work**.
- The **Actual work start** field is automatically updated with the current system time, marking the beginning of the task.
- The work order task's state changes to **Work In Progress** to reflect that the task is actively being worked on.
- The **Actual travel duration** field is automatically calculated by the system. It measures the time difference between the **Actual travel start** and **Actual onsite arrival** timestamps, unless manually set.
- If the system properties `work.management.allow.auto.timecard` and `work.management.allow.travel.task.timecard` are enabled, time cards are automatically created. These time cards capture the duration of your work on the task, including the task's travel time.
- The generated time card for the task's travel duration is stored under the **Time Worked** related list. This provides a record of the time spent traveling to the task location.

4. If you take a break from the task activity, pause and then resume work on the task.

- When you take a break from the task activity, click **Pause Work**. The button toggles to **Resume Work**.
- When you are ready to work on the activity again, click **Resume Work**.

Each time you pause or resume work on the task, the timestamp is captured in the activity stream and the actual time you worked on the task is automatically calculated. An entry for the time worked is created in the **Time Worked** related list.

5. When the work is done, open the task record and add a work note describing what you did to complete the task.

6. Click **Close Complete**.

7. If you want to close the task when the work is pending, open the task record, and click **Close Incomplete**.

For more information about closing incomplete work order tasks, see [Close an external work order task as incomplete](#).

Result

The cumulative amount of time worked on the task is captured in the **Actual Work Duration** field. This total includes the time you started working on the task until you closed work on the task, excluding any time paused on the work.

View attached knowledge articles

View relevant knowledge articles for reference that are attached to the work order tasks in the Field Service Contractor Portal.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

About this task

The knowledge article view page in the Field Service Contractor Portal provides several details about a displayed article, such as article number, short description, article content, authored by, number of views, and so on.

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **My Lists > My Tasks > All Tasks**.
3. Open a work order task from the list.
4. Click the Attached Articles related list in the **Work Order Task** form.
5. From the **Knowledge** list, open a link to the knowledge article that you want to view.
You can provide feedback on a knowledge article by rating the article, marking the article as helpful or not helpful, provide start rating, and posting comments for the article.

Result

The selected version of the article opens in a Knowledge Details page displayed in another tab within the Field Service Contractor Portal. The tab name includes the knowledge article number and its version number.

Close an external work order task as incomplete

Close a work order task as incomplete if there is work pending on the task.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Open a work order task that is already in progress.
3. Click **Close Incomplete**.
4. Close or create a follow on task.
5. In the **Reason for the incomplete closure** field, enter a reason for not completing the task.
This information is copied to the Work Notes field on the work order task form.
6. Click **OK**.
The status of all unused parts automatically changes to **In-Stock**.

The parent work order state changes based on the following conditions:

If	The work order state changes to
All work order tasks are in the Closed-Complete or Canceled state and at least one work order task is in Closed-Incomplete state.	Closed - Incomplete
Only one work order task is associated with a work order and that task generates a follow-on task, which is in Draft state.	Awaiting Qualification
More than one work order task is associated with a work order and one or more those tasks generate a follow-on task, which is in Draft state.	Work in Progress
All follow-on tasks generated from any of the work order tasks are in Closed Complete state. Note: The task that generated the follow-on task will be in Closed Incomplete state.	Closed Complete

Note:

Additionally,

Closing child Work Order task also closes parent work order.

This business rule is configured on parent (sm_task) table and runs when a (sm_task) record's state changes. There is logic hardcoded to rollup the state change to its parent.

If this behavior is not desired for work orders you can implement the following condition on this business rule to ensure this business rule does not run for (wm_task/wm_order) records.

Condition = current.sys_class_name != 'wm_task' && current.sys_class_name != 'wm_order'.

Result

The task is closed successfully and follow-up task is created if you have selected **Yes** from the Create a follow on task? list.

Record the usage of assets on the Contractor Portal

The staff of contractor companies can track the consumable and non-consumable parts that are used or changed during the execution of work order tasks on the Field Service Contractor Portal.

[Record the assets used during a work task on the Contractor Portal](#)

[Record the removal of an asset from a task location on the Contractor Portal](#)

Record the assets used during a work task on the Contractor Portal

Record any assets that you use during the execution of a task.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > My Lists > My Tasks.**
2. Open a work order task.
3. Click **New** in the Asset Usages related list.
4. Record the used asset.
 - a. In the Asset Usage form, select **Used** from the **Status** list.
 - b. Select the asset from the Asset list.
5. Click **Save**.

Result

The asset you used is successfully recorded in the agent personal stockroom.

Record the removal of an asset from a task location on the Contractor Portal

Track the status of an asset that you removed in a work order. You can track the status as you're doing the task from the task location.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

Procedure

1. Navigate to **All > Field Service Contractor Portal > My Lists > My Tasks.**
2. Open a work order task.
3. Click **New** in the Asset Usages related list
 - a. Select **Removed** from the **Status** list.
 - b. Select the asset that you have removed from the **Asset** list.
4. Click **Save**.

Result

The removed asset is successfully recorded in the agent personal stockroom list.

View task SLAs on the Contractor Portal

View the work order SLA timeline in the Field Service Contractor Portal to make sure you complete your task within the SLA time period.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

About this task

You cannot create and edit SLAs or delete them from work order tasks using the Field Service Contractor Portal. For more information, see [Manage a work order SLA](#).

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**
2. Click **My Lists > My Tasks > All Tasks.**
3. Open a work order task from the list.
4. Click the Task SLA related list in the Work Order Task form.

- From the Task SLAs list, open an SLA Definition and review the details.
The SLA report details includes the progress of the task SLA over the lifetime of the task.

View sibling tasks related to a work order

View details of sibling work order task that are related to the same work order in Field Service Contractor Portal.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

Procedure

- Navigate to **All > Field Service Contractor Portal > Homepage**.
- Click **My Lists > My Tasks > All Tasks**.
- Open a work order task from the list.
- Click the Sibling Tasks related list in the **Work Order Task** form.
- From the **Service Order Task** list, open a sibling work order task and review the task details.
The sibling work order task provide details, such as parent work order task number, required asset, location, and so on.

Record Service Management incidental expenses on the Contractor Portal

Agents of contractor companies can use the Field Service Contractor Portal to track incidental expenses that arise during the execution of a work order task.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

About this task

Service Management Incidentals or incidental expenses are distinct from other expenses related to work orders, such as part requirements. Incidentals represent expenses that arise during the execution of a task or that are otherwise related to the task. Field Service Management provides incidental types to track the costs of car rentals and miles traveled. Your organization can create additional custom types.

You can create incidental expenses for a work order task at any point during the task life cycle. When an incidental record is created, the system generates an expense line if the following conditions are met:

- The state is Incurred
- The type is not None
- The cost is greater than zero

The expense line is deleted if any of these conditions change.

Procedure

- Navigate to **All > Field Service Contractor portal > My Lists > My Tasks**.
- Open a work order task from the work order tasks list.
- In the Service Management Incidentals related list, click **New**.
- On the form, fill in the fields.

Service Management Incidentals form

Field	Description
Service order Task	[Read-only] Work order task number for which you are creating an incidental expense.
Type	The type of incidental expense, such as Mileage, Car Rental, or Vendor Cost.
Cost	Total cost of the incidental expense.
Description	Helpful information about the incidental expense.
State	Status of the expense, such as Pending or Incurred.

5. Click **Save**.

Complete questionnaires for a work order task on the Contractor Portal

As a manager or field service agent of a contractor company, you can access and complete questionnaires from the work order tasks assigned to you through the Field Service Contractor Portal.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

About this task

You can complete questionnaires for the work order tasks that are assigned to you at any stage of the task. One or more questionnaires can be available of a work order task.

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Open a work order task.
3. Click **Questionnaire** to display one or more available questionnaires for the task.
4. From the questionnaires list, select a questionnaire that you want to complete.
5. Click **Get Started** to answer the questions.
6. Click **Submit** after answering all the mandatory questions in the questionnaire.

Sign on closed work order on the Contractor Portal

Customers can digitally sign and confirm work orders that are closed with the **Closed Complete** or **Closed Incomplete** state.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

You must enable the **Signature Capture**, **PDF Order Summary**, and **Use Document Template to generate PDF Summary** configuration options.

About this task

When a work order is closed, you are notified with a link to the work order. Open the work order to request a signature from the customer.

Note:

The work order closes only when all its related work order tasks are closed.

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage**.
2. Click **My Lists > My Tasks > All Tasks**.
3. Open a work order task from the list that is in the Closed Complete or Closed Incomplete state.
4. Click the Work Order Details related list in the **Work Order Task** form.
5. Click the **Preview and Sign** button.
The **Preview and Sign** option is available only if you have enabled the **Use Document Template to generate PDF Summary** configuration. Otherwise, the **Sign and Confirm** option is available, which enables you to capture the customer signature without showing any work order details.
6. From the Work Order form, review the details.
7. Sign the closed work order.
 - To enter your name, click **Type signature**.
 - To sign your name, click **Draw signature**.
8. Click **Accept and Confirm**.

Result

The signed PDF summary is generated and attached to the Work Order form.

Requesting and receiving required parts

Get the parts you need to complete the assigned work order tasks.

The process to get the required parts to complete work order tasks is as follows:

- **Create a part requirement request:** After a work order task is assigned, create a request to source parts required for the task.
- **Transfer parts to your inventory from available locations:** A transfer order is created automatically when you create a part requirement. Each transfer order consists of an auto-generated transfer order line and a transfer order line task. The transfer order line task helps move a transfer order line from one stage to another such as fulfillment, shipping, delivery, and receipt. The system automatically creates multiple transfer order line tasks one after another when you close the first task of fulfilling an asset requirement.
- **Access parts that are available in your stockroom:** Assets or parts are kept in stockrooms until they are needed. Stockrooms are categorized based on the user's personal stockroom and assignment group type. Managers and agents of the contractor companies are assigned to personal stockrooms and group stockrooms, and can check the availability of required assets.
- **Pick up parts:** Pick up parts from the stockroom and then record them as delivered.

Create and source a part requirement request on the Field Service Contractor Portal

Create a part requirement request for a work order task that is assigned to you.

Before you begin

Role required: `wm_ext_agent` and `wm_ext_manager`

About this task

Creating a part requirement request automatically creates a part requirement number and a transfer order number so you can view the required part details and source the part.

Procedure

1. Navigate to **All > Field Service Contractor Portal > Homepage > Requests > Create and Source Parts**.
2. On the form, fill in the fields.

Create and Source Parts form

Field	Description
Task Number	Number assigned to the work order task. Select a task that is not in the Closed or Canceled state.
Model	The part model needed to complete the work order task.
Required by date	Date by which all parts should be delivered. The date is filled in automatically based on the expected travel start time provided in the work order task. If necessary, change the date manually.
Required quantity	Total quantity necessary to complete the work order task. This field becomes read-only when a hardware item is selected in the Model field.
From Stockroom	Location of the stockroom from which the item is to be shipped.
To Stockroom	Location of the stockroom where the item is to be shipped.
Asset	Asset requested by the transfer order line, for example, a specific printer.

3. Click **Submit**.

Result

The **Part Requirements** and **Transfer Orders** related list is updated automatically with the part requirements information in the work order task form.

Transfer part orders through the Field Service Contractor Portal

Use a transfer order to move required parts between company stockrooms or to a location where a requesting agent can receive the parts.

Before you begin

Role required: `wm_ext_manager`

About this task

You can process only transfer orders that contain parts sourced from a warehouse that you manage.

Procedure

1. Navigate to **All > Field Service Contractor Portal > My Lists > Transfer Orders.**
2. Select a transfer order to transfer the asset.
3. From the **Transfer Order Line** related list, select a transfer order line.
4. From the **Transfer Order Line Tasks** related list, select a transfer order line task that is ready for fulfillment.
Eligible tasks have the short description text "Ready for fulfillment" and the state Open.
5. Click **Close Task** to complete fulfillment and start the asset transfer process.
The transfer order line task that was ready for fulfillment moves to the Closed Complete state.

The system automatically creates two new transfer order line tasks:
 - The short description text for the transfer order line task to prepare for shipment is "Prepare for shipment" and the state is Open.
 - The short description text for the transfer order line task for drop off is "Receive" and the state is Open.
6. Drop off or prepare for shipment.

Track part pickups on the Field Service Contractor Portal

You can see which parts are ready to be picked up by viewing a consolidated list of assets grouped by stockroom and waiting to be picked up. After picking up the part, you can close the transfer order line task.

Before you begin

Role required: wm_ext_agent

About this task

The agents can physically pick up the assets and then record them as delivered. The list contains transfer order lines in the Received or In Transit stage with a work order task that meets the following criteria:

- Assigned to the agent
- In the Accepted or Work in Progress state

Procedure

1. Navigate to **All > Field Service Contractor Portal > My Lists > Pickup Parts.**
2. From the **Transfer Order Line** list, select a transfer order line.
3. From the **Transfer Order Line Tasks** list, select a transfer order line task that has the short description text "Receive" and the state Open.
4. After physically picking up the items, click **Close Task**.
The **Transfer Order Line Tasks** list displays a newly created transfer order line task that is ready to be delivered.
5. Review the transfer order line task that has the short description text "Deliver" and the state Open.
6. Click **Close Task**.

Result

The part is delivered successfully to the agent.

Access stockroom information on the Field Service Contractor Portal

As a manager or agent of contractor companies, you can access and view the availability of assets in your stockrooms using the Field Service Contractor Portal.

Before you begin

Role required: wm_ext_agent and wm_ext_manager

About this task

Agents can access only information for their personal stockrooms and group stockrooms they are assigned to. Managers can access their personal stockrooms, group stockrooms, and the personal stockrooms of agents.

Procedure

1. Navigate to **All > Field Service Contractor Portal > My Lists > Stockrooms**.
2. From the **Stockrooms** list, select a stockroom that you want to review.
3. Check the status of assets in the Stockroom.
 - To check the status of hardware items available in the stockroom, such as model, quantity, state, and sub state, click the Hardware related list.
 - To check the status of consumable items available in the stockroom, such as quantity, state, and sub state, click the Consumable related list.

Complete work orders on Mobile Agent

Field service agents and managers use the ServiceNow Agent mobile application to manage their field service tasks from anywhere.

Related topics

[Configure the Now Mobile Agent application](#)

Time Sheets in Mobile Agent

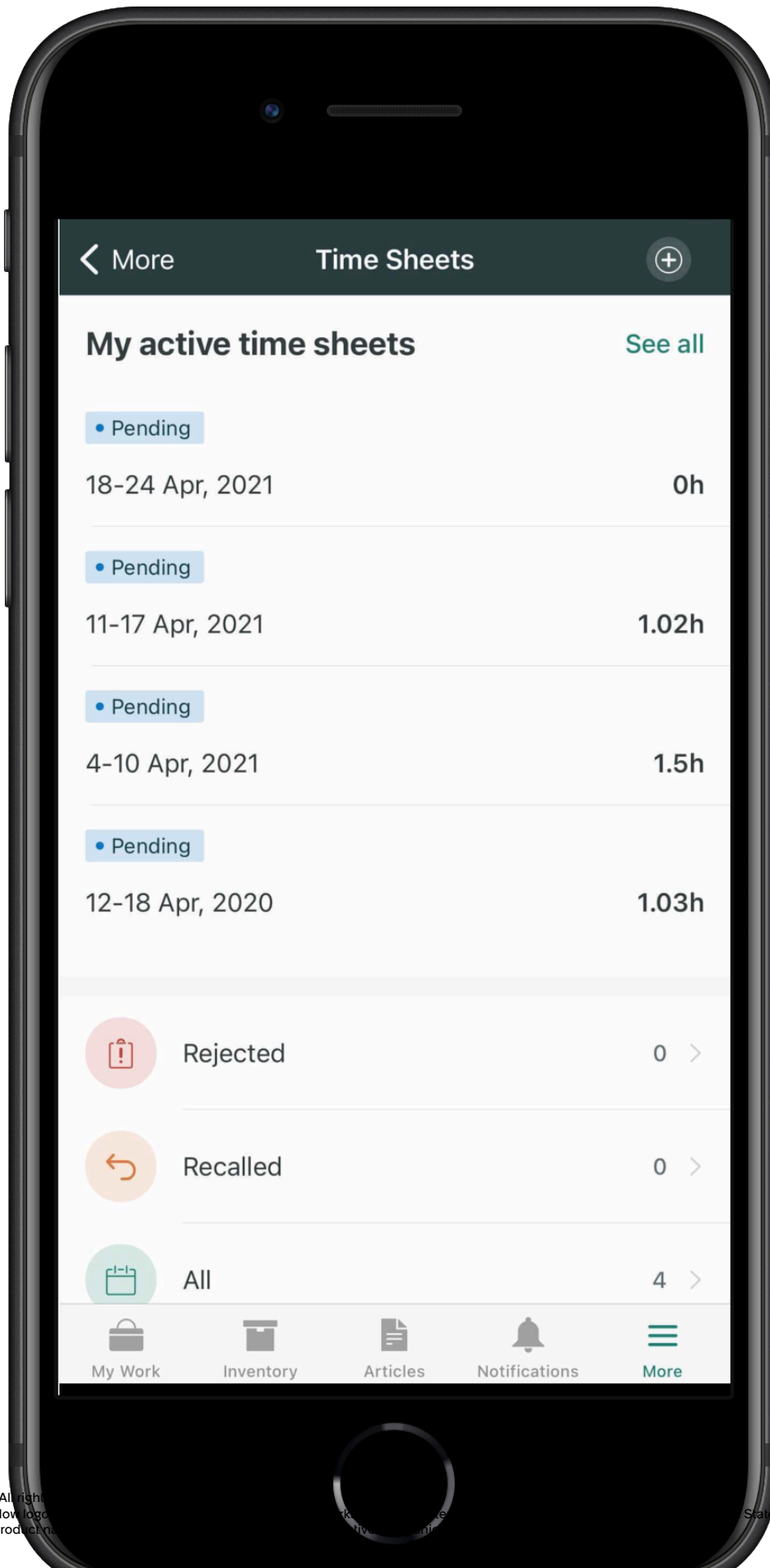
You can access and manage your time sheets from a mobile device.

After installing the Mobile Timesheet plugin (sn_mtimesheet), you can use time sheets to create, view, edit, enter notes, and submit time cards from a mobile device. You can also view all approved, rejected, or recalled time sheets or time cards.

Features

Timesheets provide the following capabilities:

- Create a time sheet
- Create a time card
- Log hours on the time card
- Update hours for the week for a specific time card
- Add notes to your time cards
- Submit a time sheet
- Submit a time card



< More Time Sheets +

My active time sheets See all

• Pending

18-24 Apr, 2021 0h

• Pending

11-17 Apr, 2021 1.02h

• Pending


4-10 Apr, 2021 1.5h

• Pending

12-18 Apr, 2020 1.03h

 Rejected 0 >

 Recalled 0 >

 All 4 >

-  My Work
-  Inventory
-  Articles
-  Notifications
-  More

Create a time sheet

Create a time sheet to group all your time cards for the given week from the ServiceNow Agent mobile app.

Before you begin

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap the **More** button on the bottom-right corner
3. Tap the plus icon located on the top-right corner.
4. In the **Select a day to create a time sheet** field, select the starting date of the week for which the time sheet is being created.
5. Tap the forward icon.

What to do next

Add time cards to the time sheet.

Add a time card to log your work time

Create time cards to log your work time through the ServiceNow Agent mobile app.

Before you begin

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap the **Time Sheets** tab and open a time sheet.
3. Tap the top-right menu for more options.
4. Add task-related or non-task related time cards.
5. Log time in the time card by tapping a task on the time sheet and entering the hours worked for applicable days.
6. Tap **Submit time sheet**.

Manage time cards in the time sheet

Manage your time cards in the Agent mobile app by performing actions such as submitting or deleting a time card or viewing notes.

Before you begin

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap the **Time Sheets** tab and open a time sheet.
3. In the **All Week** tab, tap the action menu for a time card.
4. Manage your time cards.

Personal events in Mobile Agent

Field service agents can view events and create and edit personal events in the Mobile Agent.

Create a personal event in the Mobile Agent

Create personal events in the Mobile Agent to block off time for a break or phone call.

Before you begin

Role required: wm_agent

About this task

Events created with the Mobile Agent show as personal in the calendar view.

Procedure

1. Open the Mobile Agent and tap **My schedule**.
2. Select the day for which you want to create an event.
3. Tap the ellipsis icon in the top right and tap **Create event**.
4. Enter the following information.
 - Name
 - Type
 - Start Time
 - End Time
5. Tap **Submit**.

View events in the Mobile Agent

View events in the Mobile Agent to stay updated on your schedule, and any events planned for the day.

Before you begin

Role required: wm_agent

Procedure

1. Open the Mobile Agent and tap **My schedule**.
2. Tap the day of the event.
3. Tap the event to view it.

Edit a personal event in the Mobile Agent

Edit personal events that you created in the Mobile Agent if something related to the event changes.

Before you begin

Role required: wm_agent

Procedure

1. Open the Mobile Agent and tap **My schedule**.
2. Tap the day of the event.
3. Tap the event that you want to edit.
4. Tap **Edit Event**.

5. Edit the event information.

6. Tap **Submit**.

Create a task on Mobile Agent

As an agent, create work order tasks using the ServiceNow Agent application.


Before you begin

Role required: wm_agent

To add locations, agents must have the sn_fsm_service_loc.wm_service_location_write role.

Procedure

1. Navigate to the Create new work form.

- To create a work order task from Draft tasks, navigate to **My Work > Draft tasks > Create new work**.
- To create a work order task from an asset, navigate to the asset then tap **Create new work**.
- To create a work order task from the Work order overflow menu, navigate to the work order and select the **Overflow menu** . Select **Create new work**.
- To create a sibling work order task, open the selected work order task. Then navigate to **Related > Sibling work order tasks > Create new sibling task**.
- To create a work order task from an Install base Affected Product, navigate to the install base affected product then tap **Create new work**.

2. Fill in the fields.

Work Order Task form

Field	Description
Work order	Work order this task is assigned to.
Company	Company for which the work order was opened.
Asset	Parts required to execute the task. i Note: If selected, Install base item and Location fields are hidden.
Install base item	The install base item that user has issue with. i Note: If selected, Asset and Location fields are hidden.
Location	Geographical area where the work needs to be done. The location is critical for determining the agent assigned to the task. If you don't want to use the auto-populated location, you can add an ad hoc location. For more information, see Setting ad-hoc locations in work orders and work order tasks .
Priority	Priority of this task.

Field	Description
Short Description	Brief explanation of the task.
Description	Exact technical description of the work to be performed. Provide as much detail about the problem as possible to avoid extra communication with the customer in later stages of the work order life cycle.

3. Tap **Submit**.

Prioritizing on Mobile Agent

Accept or reject tasks, assign tasks to yourself and plan your schedule for the day, view task details, schedule, and task location, or close a work order task using your mobile application.

Plan your work order tasks

Plan how to execute tasks assigned to you using the mobile app. You can prioritize by accessing SLAs and call customers directly from the app.

Before you begin

Role required: `wm_agent` or `wm_dispatcher`

About this task

The task list displays the following information for each work order task:

- The work order task number.
- The short description of the work order task.
- Company for which the work order task is being executed.
- Asset details appear only if there's an asset associated with the work order task.
- Location where the work order task is being executed.
- The work order task state.
- Scheduled start date and time for work order task to be executed.
- For a work order task, if the parent work order has an account, navigate from the work order screen and drill down the account details to see primary contact details, related cases, assets, contracts, and entitlements.

Note:

The logged-in user must have `sn_customerservice.customer_data_viewer` role to drill down and view the account details from work order.

- For a work order task, if the parent work order has been initiated from a case, navigate from the work order screen and drill down see the case details.

Note:

The logged-in user must have the `case_viewer` role to navigate to the case screen from work order and `sn_customerservice.proxy_contact` role to add work notes and comments to the **Case Activity Stream**.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.

i Note:

Tap **Quick Actions** and update your status to **ON Shift** to get identified as you are on your shift time.

3. Perform one of the following actions.

The list displays all tasks scheduled to start before the end of next week.

i Note:

You can also [view all work orders for an asset](#).

4. Select a work order task to view details for the task.**5. Optional:** Edit a work order description.

a. Tap the overflow icon and select **Edit**.

b. Do the following: To edit the task short description, tap the **Short Description** field, to make the necessary edits and select the back icon to go back to the **Edit** screen.

c. To edit the task description, tap the **Description** field, enter a description for the task and, select the back icon to go back to the **Edit** screen.

d. Perform one of the following actions:

- On an iOS device, tap **Submit**.
- On an Android device, tap the send icon.

6. View the SLA for the work order that the task is associated with.

a. Tap the work order number.

b. Select the work order to view the details.

c. Tap **Related**.

d. Tap **Task SLA**.

The screen displays all SLAs related to the work order.

Tap the arrow at the top-left corner to go back to the work order.

7. Call the caller identified on the work order.

a. Select the **Details** tab.

b. Select the caller identified in the **Caller** field.

c. Swipe the caller record to the left and select **Call** to call.

Tap the arrow at the top-left corner to go back to the work order.

Related topics

[Field Service Management SLAs](#)

[Working on tasks when your mobile device is offline](#)

Assign tasks to yourself based on Intelligent Task Recommendation

Assign the best available recommended task to yourself so that you can fill a gap in your schedule.

Before you begin

Role required: wm_agent

About this task


The Intelligent Task Recommendation feature automatically recommends you the task with the highest recommendation score only when your administrator activates the Field Service Intelligent Task Recommendation plugin. For more information, see [Activate Intelligent Task Recommendation](#).

As an agent, you can log in to the Now[®] Mobile Agent application to view the recommended task and assign the task to yourself.

Note:

Intelligent Task Recommendation excludes the work order tasks that are schedule locked.

Procedure

1. Navigate to the Now Mobile Agent application.
2. Tap **My Work**.
3. In the My Tasks section, tap the More actions () icon and then select **Recommend Task**.
4. Indicate your free time in the **Start time** and **End time** fields.
The system automatically selects the default end time as two hours after the start time. You can change the end time.
5. Select **Submit**.

Result

The task with the highest recommendation score is automatically assigned to you.

Plan your schedule

View tasks to be executed as well as your personal events on a particular day to plan your schedule for that day. Add events for yourself and display your availability to team members.

Before you begin

Role required: wm_agent or wm_dispatcher

About this task


You can view your personal events and the schedule for all active tasks assigned to you from the current date. You can also view tasks that have been closed within the last seven days.

The task list displays the following information for each work order task:

- The short description of the work order.
- The work order task number.
- Scheduled start time and end time when the work order task must be executed.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. Open the **My Schedule** applet.
4. Select a date on the calendar.
Your personal events and the work order tasks that must be executed for that day displays below the calendar.
5. Select a task to view all details for that task.
6. Add or edit a personal event.

a. Tap the more actions () icon and select **Create Event**.

b. Fill in the following fields:

Field	Description
Name	Name of the event.
Type	Type of schedule entry.
Show as	Display the event on the schedule as one of the following: <ul style="list-style-type: none"> ▪ Busy ▪ Free ▪ Tentative ▪ On call
Start time	Start date and time for this event.
End time	End date and time for this event.
Repeats	Frequency of the repeated event. Available options: <ul style="list-style-type: none"> ▪ None ▪ Daily ▪ Every Weekday (Mon - Fri) ▪ Every Weekend (Sat, Sun) ▪ Every Mon, Wed, Fri ▪ Every Tue Thu

c. Click **Submit**.

Pick up an unassigned task


If you are available, you can assign a task to yourself.

Before you begin

The work order task must be in **Pending Dispatch** state.

Role required: `wm_agent` or `wm_dispatcher`

Procedure

1. Navigate to the Now Mobile Agent application.
2. Tap **My Work**.
3. Open the **My Group Tasks** applet.
4. Select the desired work order task.
5. Tap the more actions () icon and then select **Assign To Me**.

Result

You receive a notification that the task has been assigned to you.

Optimize a task route

Get optimal routes to your task locations and use the task map to navigate to the location. You can view the location of tasks assigned to you for the current week and use the app to choose the optimal route to execute the tasks for the current day.

Before you begin

The work order task displays the following information:

- The work order task number.
- The work order task state.
- The short description of the work order.
- The start date and time that the work order task needs to be executed.

Role required: wm_agent or wm_dispatcher

Procedure

1. Navigate to the Now Mobile Agent application.
2. Tap **My Work**.
3. Open the **My Task Map** applet.
The work order task records display at the bottom of the map in the order they need to be executed.
4. Swipe a task record to the left or right to view each task for the current week and its location on the map.
5. Perform any of the following actions.

Accept or reject a work order task

Accept a work order task that has been assigned to you. You can reject the task if, for example, you do not have the required skills or you are not available at the required time.

Before you begin

Role required: wm_agent or wm_dispatcher

About this task

Unlike other work order tasks, the task card for a work order task related to a linear asset includes the start and end location details. This information helps agents identify that the task is specific to a linear asset and provides them with a clear understanding of the segment they need to focus on while executing the task.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. Perform one of the following actions.

What to do next

Start work on a task using the Now Mobile Agent application.

Start work on a work order task


You can record both the time you begin traveling to the work site and the time you start the work.

Before you begin

Role required: `wm_agent` or `wm_dispatcher`

About this task

Administrators can configure the `wm_notification.upcoming.task.reminder.minutes.before` system property to set the number of minutes before which a task reminder is sent. By default, you receive a notification 45 minutes before the work start time.

Administrators can enable push notifications in Studio. For information on setting up push notifications, see [Mobile push notifications](#) .

Procedure

1. Navigate to the Now Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, click **See All**.
4. Select the work order task you want to get started with.
You can only start work on tasks that are in the **Accepted** state.
5. Perform any of the following actions.

Result

The following fields are updated in the work order task:

- The work order task's state changes to **Work In Progress** to reflect that the task is actively being worked on.
- The **Actual work start** field is automatically updated with the current system time, marking the beginning of the task.
- The **Actual travel duration** field is automatically calculated by the system. It measures the time difference between the **Actual travel start** and **Actual onsite arrival** timestamps, unless manually set.
- The **Actual onsite arrival** time is automatically populated as **Actual work start** date time when check-in is skipped.
- The generated time card for the task's travel duration is stored under the **Time Worked** related list. This provides a record of the time spent traveling to the task location.
- If the system properties `work.management.allow.auto.timecard` and `work.management.allow.travel.task.timecard` are enabled, time cards are automatically created. These time cards capture the duration of your work on the task, including the task's travel time.

Related topics

[Manage notifications from your mobile device](#) 

[Complete a questionnaire for work order task](#)

[Create a sales opportunity](#)

Activate dark mode

Turn on dark mode in the Mobile Agent to alleviate eye strain if the default is too bright.

Before you begin

Role required: `wm_agent`

Procedure

1. Open the Mobile Agent.
2. Tap **Settings**.
3. Tap **Appearance**.
4. Tap **Dark theme**.

Create a sales opportunity

Create sales opportunities for services, products, or assets identified during field service visits using the Now Mobile Agent application.

Before you begin

Role required: `wm_technician_sales_write`

About this task

- Technician driven sales with the Field Service (`com.snc.fsm_technician_sales`) plugin and the Opportunity Management store application (`com.sn_l2c_oppty_mgmt`) must be installed.
- With the `wm_technician_sales_write` role, you can create opportunities before starting a task or while the task is in progress.

Procedure

1. Navigate to the Now Mobile Agent application.
2. Create a sales opportunity.
When the **Create Opportunity** form appears, a few fields will be auto-populated.
3. On the form, fill in the fields.

Create opportunity

Field	Description
Short Description	Enter a brief description of the opportunity.
Work order task	Work order task number is auto-populated if the opportunity is based on the work order task. This field becomes optional to create an opportunity without a work order task.
Account	Enter customer account reference.
Contact	Enter the customer contact reference.
Sales cycle type	Enter the type of sales cycle (e.g., Newcust, Renew, Upsell). The default value is Upsell.
Stage	Enter the stage of the opportunity (e.g., Qualify, Develop, Propose, Negotiate, Closed-Won, Closed-Lost). The default value is Qualify.
Rating	Set the rating (e.g., Hot for top rating). The default value is Hot.

Field	Description
Calling allowed	Option to allow calls. By default, the option is enabled.
Email allowed	Option to allow emails. By default, the option is enabled.
Sharing allowed	Option to allow share. By default, the option is enabled.

4. Tap **Submit.**

The opportunity is created and appears in the **Sales** tab. If associated with a work order task, it also appears in the **Related** tab.

5. Add a product to the opportunity.

- a. Tap **Add line** on the created opportunity.
- b. In the **Product offering** field, select the product.
- c. In the **Quantity** field, enter the quantity.
- d. In the **Unit of measure**, select the unit.
- e. Tap **Submit**.
The product line item is added to the opportunity.

Result

Tap the opportunity in the **Related** tab to view the details and **Activity** stream of the line items.

View sales opportunities

View, sort, and filter sales opportunities using the Now Mobile Agent application.

Before you begin

Role required: `wm_technician_sales_write`

About this task

- Ensure the Technician driven sales with Field Service (com.snc.fsm_technician_sales) plugin and Opportunity Management Application (com.sn_l2c_oppty_mgmt) plugin are installed.
- With the `wm_technician_sales_write` role, you can access and manage your sales data, ensuring you stay organized and focused on the most relevant opportunities.

Procedure


1. Navigate to the Now Mobile Agent application.
2. Tap the **Sales** tab.

Note:

If the **Sales** tab is not visible, tap the **More**  icon.

The list of opportunities appear.

3. **Optional:** To sort the opportunities, tap **Sort by** and select the required option.
The list of opportunities appear sorted based on the selected option.

4. To filter the opportunities based on a specific criteria, tap the Filter  icon and enter the filter criteria.
5. Tap **Apply**.
The list of opportunities will be filtered according to the selected criteria.

Complete a questionnaire for work order task

Complete the answers to questions associated with a work order task and store the responses for future reference. For example, you can create questionnaires for verifying the condition of an equipment before it's repaired.

About this task

Agents can't view each others completed questionnaire, even if the agent impersonates the other agent's profile.

Before you begin

You can view a questionnaire in a work order task if it's made available for that task. For more information on creating questionnaires and associating them with work orders or work order tasks, see [Work order questionnaires](#).

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, tap **See All**.
4. Select the work order task for which you want to fill out the questionnaire.
5. Tap the **Take questionnaire** button at the bottom of the screen.
6. On the **Pending** tab, tap the questionnaire that you're ready to take.
If the questionnaire is required, you can't close the task until you complete the questionnaire.
7. Tap **Get Started** and answer each question in the questionnaire.
8. Perform one of the following actions.
The submitted questionnaire appears in the **Completed** tab.

Tracking your location on Mobile Agent

Use location tracking so that you can keep a record of your location, either for a defined period of time or while you perform tasks.


Your administrator selects which tracking options are available to you. There are two location tracking options available, action based and manual. You can select either of the option based on your requirement:

Action based tracking

Starts and stops location tracking based on actions you perform.

Manual tracking

Starts location tracking for a defined period of time or tracks your location continuously.

To monitor your activity, turn on location tracking from your mobile device. Location tracking continues even when there is no internet connection. For more information, see [Using location tracking for mobile](#) .

Inventory on Mobile Agent

Field service agents can locate, request, and transfer parts from other agents or warehouses for the current and future work order tasks.

Related topics

[Advanced Part Sourcing components](#)

[Consumable and non-consumable models](#)

Track inventory





View a map that shows stockrooms with available parts relative to your location.

Before you begin

Role required: wm_agent

About this task

As an agent, you can search parts from your personal stock room, peers' stockroom, and warehouse to complete your work order tasks. The stockroom locations' information appear in the form of interactive map and cards in the **Asset map** screen. You can use the following icons to navigate between the stockroom locations.

- Use the Direction icon () to view the location of the logged-in user and Show directions icon () to navigate between the stockroom locations.
- Use the Location list icon () to view the stockrooms in the list view and Location map icon () to view the stockrooms in the map view.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory**.
3. Perform one of the following actions.

Result

The stockroom locations' information appear in the form of interactive map and cards in the **Asset map** screen. You can select the desired stockroom and request inventory.

What to do next

[Request inventory](#)

Request inventory

Request inventory when your stock gets low or you need a part for a particular work order.

You can request parts from a peer's stockroom or warehouse. If you request parts from your peer agents, a mobile notification is sent to the peer agent from whom you requested the parts. Your peer agent can either accept or reject your request based on the part availability in their stockroom. If you request parts from warehouse, the transfer orders are automatically generated.

You can request inventory in two ways:

- **Create part requirement:** Select and request a single part with or without the context of work order task.
- **Create part request:** Select and request multiple parts from a single or multiple stockrooms directly or based out of existing part requirements.

Related topics

[Track inventory](#)

[Accept or reject part requests from peer agents](#)

[View transfer order lines for requested parts](#)

Request a single part

Create a part requirement to receive parts when you find defective parts in your stockroom or your stock has run out.

Before you begin

Role required: wm_agent

About this task

You can create a part requirement with or without the context of a work order task.

Procedure

1. Open the Now Mobile Agent application.
2. Request and source parts.
3. Tap **Model**.
4. Select a part model.
5. **Optional:** To associate the part requirement with the **Work order task**, select a work order task.
6. **Optional:** To view substitutes of the selected part model, select **Search for substitutes**.
7. In the **Required quantity** field, enter the total quantity of the parts required to complete the task.
8. In the **Required by date** field, enter the date by which all parts should be delivered.
9. Enable the **Mandatory** option to specify the parts required to perform the work order task.
10. Tap **Submit**.
A message appears as the part requirement is created
11. Navigate back to the part requirements list screen and tap the part requirement card.
12. Tap **Find part** to locate the specific part.

i Note:
If the part is unavailable in your personal stockroom, you are promptly directed to step 14.
13. Source the part that is already available in your stockroom.
 - To reserve the part for later use, tap **Reserve this part**.
 - To source the part from a different stockroom, tap **Source it again** and follow the steps 14 through 19.
14. **Optional:** To view substitutes of the selected part model, select **Search for substitutes**.

15. In the **Radius** field, enter the radius in miles to search the parts within the specified distance. The system uses your current location as source location and searches for parts within the specified radius.

16. Tap the **Next** icon.

The stockroom locations appear in an interactive map and as cards in the **Asset map** screen.

Note:

The part information card contains the last known location of your peer agents when the following options are enabled in your peer agent's profile and mobile.

- The **Geolocation tracked** option in your peer agent's profile controls whether you can see the parts details and their last known location in the information cards.
- The *Location Tracking* option in your peer agent's mobile device and Now Mobile Agent app.

17. Tap the stockroom from which you want to receive the parts and then tap **Source part**.

18. Select the stockroom to which the sourced parts will be transferred.

For example, if you need to receive parts to your stockroom then select your personal stockroom.

19. In the **Quantity** field, enter the quantity of the parts required to complete the task.

20. Tap the **Next** icon.

21. Navigate back to the **Inventory** screen.

Result

- If you have requested parts for a specific work order task, the Part Requirements and Transfer Orders related lists are updated automatically in the work order task form.
- The transfer order lines are generated when you request parts from a warehouse.
- If the Field Service Advanced Parts Sourcing [com.snc.fsm_advanced_parts_sourcing] plugin is activated and *Create part requests for part requirement sourcing* and *Use part request approvals* properties are enabled, you can view the following records.
 - A part request is created for the specified part requirement with the state as **In progress** and the part request line with the state as **Requested**. To view the status of your requests, navigate to **Inventory > My requests**.
 - A temporary part request (RITM) record is created for the requested parts and sent to your agents as a mobile notification. If the property is disabled or you have requested parts from warehouse, the transfer orders are generated automatically in the Draft state.

Request multiple parts

Request and source multiple parts simultaneously from a single or multiple stockrooms regardless of whether you have a work order task.

Before you begin

The Field Service Advanced Parts Sourcing [com.snc.fsm_advanced_parts_sourcing] plugin must be activated. For more information on the steps to activate a plugin, see [Activate Field Service Management](#).

Role required: wm_agent

About this task

You can create part requests from **My work** and **Inventory** screens with the required quantity, either directly or by fetching them from an existing part requirement.

i Note:

- The parts are searched for in the stockrooms based on the defined values in the Part Search Criteria property. For more information, see [Advanced Part Sourcing components](#).
- Your current location is considered as the source location and searches for stockrooms in the radius as mentioned in the **Maximum part search radius** and **Distance Unit** of your profile.

Procedure

1. Open the Now Mobile Agent application.
2. Request parts with or without a work order task, or from your own requests or parts requirements lists.
3. Select the stockroom to which the requested parts will be received.
For example, if you need the parts to complete your work order task then select your personal stockroom.
4. Select **Submit**.
The part request is created in the Draft state.
5. Tap **Add parts**.
6. Add parts to the part request either directly or from a part requirement.
7. Select **Submit**.
The part request lines are created with the required parts.
8. Navigate to the part request list screen by tapping the Back icon.

i Note:

Managers can directly select the stockroom and fetch the parts on behalf of their agents.

9. Find parts from the available stockrooms.
 - To locate a specific part, tap **Find part**.
 - To locate all parts, tap **Find all**.

i Note:

If the part is available in your personal stockroom, you can reserve the part using the **Reserve this part** option.

The stockroom locations that have the parts appear in the interactive map and stockroom information cards in the **Stockroom map** screen.

10. Select the stockrooms from which you want to receive the parts.
11. Tap **Confirm stockroom**.
A success message appears to validate that the parts have been requested from the selected stockroom.

Result

- The part request state changes to In progress and the part request line changes to Requested. To view the status of your requests, navigate to **Inventory > My requests**.
- The part requests are sent to the peer agents from whom you have requested parts if the *Use part request approvals* property is enabled. For more information, see [Advanced Part Sourcing components](#).
- A temporary part request (RITM) record is created for the requested parts and sent to your agents as a mobile notification. If the property is disabled or you have requested parts from warehouse, the transfer orders are generated automatically in the Draft state.
- If you have requested parts for a specific work order task, the Part Requests and Transfer Orders related lists are updated in the work order task form.

Accept or reject part requests from peer agents

Review the part requests that you receive from peer agents.

Before you begin

- The Field Service Advanced Parts Sourcing (com.snc.fsm_advanced_parts_sourcing) plugin must be activated. For more information, see [Additional plugins for Field Service Management](#).
- The *Use part request approvals* property must be enabled to be able to receive part requests from your peer agents. For more information, see [Properties installed with Field Service Management](#).
- *Notifications* in the mobile device and Now Mobile Agent app must be enabled to be able to receive mobile push notifications from your peer agents.

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.

Tip:

If you know your inventory and whether you want to reject or accept the request right away, you can do so directly from the notification that appears by selecting **Accept** or **Reject**.

2. Tap the push notification.

Note:

If you cannot access the push notification, access the request by tapping **Inventory**, and then in the **Part requests** section, tapping **Requested from me**.

3. Check the part availability in your personal stockroom and determine whether you want to accept or reject the part request.

Result

- If you accept the request, the part request record state changes to Approved and a mobile notification is sent to the requested field service agent. The transfer order lines are created as follows:
 - For consumable parts, only one transfer order line is created for all requested parts.
 - For hardware, one transfer order line is created for each asset of the requested parts.
- If you reject the request, the part request record state changes to Rejected and a mobile notification is sent to the requested field service agent. The rejected part requests can be requested again. For more information, see [Request rejected parts from other stockrooms](#).

What to do next

- [View transfer order lines for requested parts](#)
- [Request rejected parts from other stockrooms](#)

Picking up parts

You can view a summarized list of transfer orders for all the assets that are waiting to be picked up physically.

Pick up parts for your part requests

Pick up parts that you requested from peer agents that are ready for pickup and then close the transfer order line.

Before you begin

The Field Service Advanced Parts Sourcing plugin (com.snc.fsm_advanced_parts_sourcing) must be activated. For more information, see [Additional plugins for Field Service Management](#).

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory**.
3. Tap **My requests**.
4. Tap the part request for which you wanted to view the transfer orders.
5. Tap the **Transfer orders** tab of the selected part request.
6. Select the transfer orders for which you want to pick up parts.
7. Tap **Confirm pickup**.

Result

A message appears to indicate that the pickup and transfer order is completed. The transfer order line state changes to Delivered.

Pick up a part to complete tasks

When you are at a task site and need a missing part to complete your job, you can pick up the part by transferring it from an available stockroom.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Parts to receive**.
3. Tap a part for pick up, swipe to the left and select **Confirm pickup**.
The sourcing stages for the part appears. If the part is in **Received** or **In Transit** stage, you can confirm pick up.
4. Select **Confirm pickup**.

Result

The sourcing stage moves to **Delivered** and the part is added to your inventory and is marked as available.

Request rejected parts from other stockrooms

Request parts from other stockrooms that have been rejected by your peer agents.

Before you begin

Role required: wm_agent

About this task

If your peer agent has rejected your request for a single or multiple parts, the part request will be partially rejected or rejected. You can view the rejected part requests and request them again from other stockrooms.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory**.
3. Tap **My requests**.
4. Tap the part request with the state of Rejected or Partially Rejected.
5. In the **Parts** tab, tap on the rejected part.
6. Tap **Request again**.
7. In the **Request again** screen, elect the rejected parts and tap **Submit**.

Result

A part request is created in the Draft state.

What to do next

You can source parts for the part request that is created. For more information, see [Request inventory](#).

Duplicate part request

Create a duplicate part request to request the same list of parts that you requested in the past.


Before you begin

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory**.

3. Tap **My requests** and select the part request you want to duplicate.

4. Tap the more actions () icon and then select **Duplicate request**.

Result

The part request line items are added to a duplicated request.

View transfer order lines for requested parts

View all transfer order lines for the parts that are requested by you.

Before you begin

Role required: wm_agent or wm_dispatcher

About this task

Transfer orders move necessary parts between stockrooms or to a location where an agent can receive them. The transfer order lines are created as following:

- For consumable parts, only one transfer order line is created for all requested parts.
- For hardware or non-consumable parts, one transfer order line is created for each asset of the requested parts.

Procedure

1. Open the Now Mobile Agent application.
2. View the transfer orders.

What to do next

You can pickup parts from your peer agents for the part request. For more information, see [Pick up a part to complete tasks](#) and [Pick up a part to complete tasks](#).

View schedule and track the parts for drop-off

You can view the parts that you have scheduled for drop off from your personal stockroom to another stockroom.

Before you begin

Role required: wm_agent or wm_dispatcher

About this task

The transfer order line for drop-off must be in **Draft** or **Requested** state. For more information on transfer order line stages, refer to [Transfer orders for Asset Management](#) .

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Parts to receive**.
You can view the list of parts that you have scheduled for drop off.

For more information on dropping off an asset, refer to [Drop off an asset](#).

Analyze all work orders for a selected asset

Scan an asset to view its work history and upcoming work orders. You can also create a work order for an asset.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. In the **My Work** tab, tap **Asset Lookup** at the top.
3. Tap the barcode icon and scan the asset.
4. Tap the asset record.
5. Do one of the following.

Track an asset for a work order task from a mobile device

Track the status of an asset that you used to execute a work order task or an asset that you removed or replaced by using the Now Mobile Agent application on a mobile device. You can track the status of these assets as you're doing the task from a task location.

Before you begin

The work order task must be in the **Accepted** or **Work in Progress** state before you can do this procedure.

Role required: wm_agent

About this task

When you record the asset usage, the following actions occur:

- The Use Part screen displays the assets in the Reserved Part and Available Part list in your inventory and shows the state as **In Stock** and the substate as **Reserved** and **Available**.
- The Remove Part list displays the assets for all the companies and locations for the work order or work order tasks that you're working on where the state of the part is **In Stock** and the substate is **Defective**.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. In the My Tasks section, tap **See All**.
4. Select the work order task that you want to track the assets for.

The **Asset** field of the work order task inherits the asset details from its parent work order. If you add an asset to a work order, all its work order tasks are updated with the same asset details.

5. View the parts used, the parts removed, and the part requirements for a work task by tapping **Parts**.
6. Record information about the usage of an asset, the removal of an asset, or the replacement of an asset by tapping one of the following options.
7. Record the information about the usage or removal of an asset by tapping one of the following options.

Related topics

[Record asset usage](#)

Register new assets

Register new assets that are supported for customers and have not been registered previously using the Now Mobile Agent application.

Before you begin

Role required: asset

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory**.
3. Tap the overflow icon (...) and select **Register Asset**.
4. Tap **Model Category**, and search for and select the part model category.
5. Tap **Model**, and search for and select the part model.
6. **Optional:** Enter other details, such as **Model Number**, **Installed date**, **Company**, and **Location**.
Entering a new model number overwrites the existing model number of the part that belongs to the same model category and model.
7. Tap **Scan** to scan the Asset Tag and Serial Number of a part.
8. Tap **Scan next item** each time to scan the barcodes of the next parts.
The default configuration enables you to scan a maximum of five parts at a time. You can increase or decrease the count of scanning multiple items at a time. For more information, see [Configure a grouped input for multiple scans](#).
9. After scanning all the parts, tap **Review**.
The **Review** count is updated after you have scanned each part.
10. Review the scanned parts and tap **Done**.
The Register Assets form is updated with the latest count and other related information.

Move defective assets through the transfer process

Add defective parts from your stockroom to the drop-off list. Generate transfer orders to move these items to the stockroom where it needs to be dropped off.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory > My Inventory**.
Parts that are in available or reserved substate are displayed in the **Available** tab and the ones that are defective are displayed in the **Defective** tab.
3. Click **Defective**.
4. Select the part for drop-off.
5. Do one of the following to move the part to the stockroom where it needs to be returned.
6. Click **To Stockroom**, select a stockroom for drop-off.
7. Do one of the following:

- In iOS, click **Submit**.
- In Android, click the send icon.

Result

A new transfer order line is created.

- If there is an existing transfer order for the drop-off location, then the new transfer order line is added that transfer order.

Note:

The transfer order must be in **Draft** state.

- If a transfer order for the drop-off location does not exist, then a new transfer order is created and the transfer order line added to that transfer order.

For more information on asset transfers, see [Move an asset through the transfer process](#).


Move excess assets through the transfer process from a mobile device

Move your excess consumable parts from your stockroom to the drop-off list by using the Now Mobile Agent application on your mobile device. You can generate transfer orders to move these items to the stockroom where it must be dropped off.

Before you begin

Role required: `wm_agent` or `wm_dispatcher`

Procedure

1. Open the Now Mobile Agent application.
2. Tap **Inventory > My Inventory**.
The parts that are in an available or a reserved substate are displayed in the **Available** tab.
3. Select **Available**.
4. Select the part that you want to drop off.
5. Move the part to be returned to the stockroom by doing one of the following actions.
6. Select the part and open the form.
7. Select the Overflow  icon and then select **Add to drop-off list**.
8. Verify the model number.
9. Select **Quantity** and enter the quantity that you want to return to the stockroom.
10. Select **Drop off stock room** and then select a stockroom where you want to drop off your parts.
11. Do one of the following actions depending on whether you have an Apple iOS or Google Android device:
 - In an Apple iOS device, select **Submit**.
 - In a Google Android device, select the send icon.

Result

A new transfer order line is created.

- If there's an existing transfer order for the drop-off location, then the new transfer order line is added that transfer order.

Note:

The transfer order must be in the **Draft** state.

- If a transfer order for the drop-off location doesn't exist, a new transfer order is created and the transfer order line is added to that transfer order.

For more information on asset transfers, see [Move an asset through the transfer process](#).

What to do next

Check the status of the part in the Parts to drop-off list.

View install base information on Now Mobile Agent application

View information about install base items in work order tasks on the Now Mobile Agent mobile application to track the status of the questions and issues raised for the purchased products or services.

Before you begin

Role required: wm_agent

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. In the My Tasks section, tap **See All**.
4. Tap the work order task that you want to track the install base item status.
5. Tap **Install base item**.
6. Review the install base item information in the Details section.
 - Tap the **Details** tab to view the install base item information.
 - Tap the **Related** tab to view the child install base items and upcoming work order tasks.

Note:

Upcoming work order tasks are available only if the Planned Work Management plugin is installed and upcoming work orders are generated.

Equipment on Mobile Agent

Check in, check out, or report broken equipment using the **My Equipment** applet in the Mobile Agent.

Check equipment out or in with the Mobile Agent

Check out or check back in equipment assigned to your work order tasks or crew through the Mobile Agent.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **My work > My equipment**.
2. Tap an equipment instance.

3. Check the equipment out or in.

- To check the equipment out, tap **Check out**.

The equipment status changes to **In use**.

- To check the equipment in, tap **Check in**.

The equipment status changes to **Available**. If the assigned work order task is complete, the equipment instance can no longer be checked out for that task.

Report broken equipment with the Mobile Agent

Report breakdowns of equipment assigned to your work order tasks or crew through the Mobile Agent.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to **My work > My equipment**.
2. Tap an equipment instance.
3. Tap **Report breakdown**.
4. In the **Description** field, provide details about the breakdown.
5. Tap **Submit**.

Result

The equipment status changes to **Unavailable** and can no longer be checked in nor out.

Field Service Contractor for mobile

Managers and agents of contractor companies can use the Field Service Contractor for mobile application to view and manage the work order tasks assigned to them.

Organizations can outsource their work order tasks to contractor companies. The contractor company performs assigned jobs by deploying their contractor agents at the customer location.

Related topics

[Field Service Contractor for mobile feature of the Now Mobile Agent application](#)


Reassign a work order task to yourself on a mobile device

Reassign a work order task to yourself through the Field Service Contractor for mobile feature of the ServiceNow Agent application.

Before you begin

Role required: wm_ext_agent or wm_ext_manager

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **My group tasks**.
3. Select the work order task from the list.
4. Tap the more actions () icon.

5. Tap **Assign to me**.

- If the work order task is successfully assigned, the message `Assign to me successful` is displayed.
- If you are not available at the scheduled time, the following message appears: `This agent is unavailable during scheduled time. Please select another agent or reschedule the time.`

Result

The work order task is successfully assigned to yourself and can be accessed from the **Open tasks** screen. The Notification navigation tab shows a message confirming that the work order task has been reassigned to you.


Reassign a work order task to an agent on a mobile device

As a manager, you can reassign a work order task to an agent through the Field Service Contractor for mobile application.

Before you begin

Role required: `wm_ext_manager`

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, open a work order task in one of the following ways:
 - Tap the **Open task** screen
 - Tap the **My group tasks** screen.
 - Tap the **Today's tasks** screen.
3. Review the work order task.
4. On the work order task, tap the more actions () icon.
5. Tap the **Reassign task** function.
6. Tap **Assigned to**.
7. Select an agent from the **Assigned to** list.
8. Tap **Submit**.

Note:

If the contractor agent is unavailable, the following message appears: `The agent is unavailable during scheduled time. Please select another agent or reschedule the time.`

Result

The work order task is reassigned to a contractor agent.

Accept or reject a work order task on a mobile device

Accept or reject a work order task assigned to you through the Field Service Contractor for mobile application.

Before you begin

Role required: `wm_ext_agent` or `wm_ext_manager`

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **All open tasks**
3. Select the work order task from the list.
4. On the work order task form, either accept or reject the task.

- To reject the task, tap **Reject**, select the reason for the rejection, and enter details.

The following confirmation message appears at the top of the screen: Task rejected successfully. Click here to view open tasks.

- To work on the task yourself, tap **Accept**.

Note:

If the contractor agent or manager is unavailable, the following message is displayed:
Warning: WOTXXXXXX has been scheduled for a time you may not be available.

Result

The task is either accepted or rejected. If the task is rejected, it is reassigned depending on the role of the person who accepted or rejected it.

- If a manager rejects the task, the state of the task changes to Pending dispatch or Pending assignment. The rejected task is assigned to the manager of next appropriate group. If the system cannot identify another qualified group, the task remains in the Pending dispatch state so the dispatcher can manually assign the task.
- If an agent rejects the task, it is reassigned to the agent's manager.

Create work orders for a selected asset on a mobile device

Create a work order for an asset through the Field Service Contractor for mobile application.

Before you begin

Role required: wm_ext_agent or wm_ext_manager

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Asset Lookup**.
3. View the asset record using one of the following option.
 - Tap the barcode icon and scan the asset.
 - Enter the asset code in **Asset Tag**.
4. Tap the asset record and do one of the following actions.

Option	Description
<p>To create a work order for this asset</p>	<p>a. Tap Create Work Order.</p> <p>b. Tap Short description.</p>

Option	Description
	<p>c. Enter a short description for the work order and click Done.</p> <p>d. Click Submit.</p> <p>The work order is created for the selected as set.</p>

Result

A work order is created for a selected asset or review the related work history.

View knowledge articles related to a work order task on a mobile device

View knowledge articles related to a work order task through the Field Service Contractor for mobile application to get additional information to help you complete the task.


Before you begin

Role required: wm_ext_agent

About this task

The knowledge article view page provides several details about a displayed article such as article number, short description, article content, authored by, and number of views. You can view all the available knowledge articles regardless of your work order task on the **Articles** tab.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Today's task**.
3. Open a work order task from the list.
4. On the work order task form, access the related articles in the **Details** screen in one of the following ways:
 - Tap the More actions () icon, and select **View knowledge**.
 - Tap the **Related** tab and view the related knowledge articles.
5. Review the knowledge article.
6. From the Knowledge list, select the link to the knowledge article that you want to view.

Note:

7. **Optional:** Provide feedback on a knowledge article by rating the article, marking the article as helpful or not helpful, providing a star rating, or posting comments for the article.

Result

The selected version of the article opens in a Knowledge Details page displayed in another tab within the Field Service Contractor for mobile application. The tab name includes the knowledge article number and its version number.

Enter incidental expenses directly from a work order task on a mobile device

Create and track incidental expenses that arise during the execution of a work order task through the Field Service Contractor for mobile application.

Before you begin


Role required: wm_ext_agent or wm_ext_manager

About this task

Incidental expenses are expenses related to work orders that arise during the execution of a task or are otherwise related to the task, such as vendor or mileage costs, but are not standard predicted expenses such as part requirements.

You can create incidental expenses for a work order task at any point during the task life cycle.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Today's tasks**.
3. Open a work order task from the list.
4. On the **Details** tab, tap the More actions () icon.
5. Tap the **Log incidental** function.
6. On the form, fill in the fields.

Log incidentals form

Field	Description
Type	The type of the incidental expense, such as Mileage, Car Rental, or Vendor Cost.
Cost	Total cost of the incidental expense.
Description	Helpful information about the incidental expense.
State	Status of the expense, such as Pending or Incurred.
Attachment	Option to include any supporting attachments.

7. Tap **Submit**.

Result

The incidental is created and can be accessed from a work order Related tab or My incidental navigation tab.

The system generates an expense line for the incidental expense if the following conditions are met:

- The state is Incurred
- The type is not None
- The cost is greater than zero

If any of the conditions change, the expense line is deleted.

View an agent's profile on a mobile device

View the profile information of all the agents in your team through the Field Service Contractor for mobile application so you can contact them when necessary.

Before you begin

Role required: wm_ext_manager

About this task

As a contractor manager, you can access details on your team members such as their mobile phone number, business phone number, and email address.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the ServiceNow Agent application home screen, navigate to **My Team > More**.
3. Tap the group you belong to.
4. Tap the agent profile you want to review from the **Team members** list.
5. Review the agent profile information.

View details screen on the Field Service Contractor for mobile in ServiceNow Agent application

Use Field Service Contractor for mobile application to view work order fields detail.

Before you begin

Role required: wm_ext_agent or wm_ext_manager

About this task

The Details screen shows complete information about a work order task. The contractor agents or managers can use the Details screen to review a work order task to understand the task requirement, and they can Accept or Reject the task. Managers can also reassign the task to a contractor agent.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. Tap **My work**.
3. Tap **Today's tasks**.
4. Open any work order task.
5. On the work order task form, tap **Details**.
6. On the **Details** tab, review the work order task information shown in the form fields.

Field	Description
Location	The geographical area where an agent executes the assigned task.
Initiated from	Parent task of the work order task.
Asset	Parts required to execute the task.
Scheduled start	The date and time when the work on the task is expected to begin.
Estimated end	Estimated date when the work on the task will end. The date is automatically calculated based on the Scheduled start and Estimated work duration.

Field	Description
Estimated work duration	The estimated time to complete the work. The duration can't exceed the total time of the window. This field is automatically set to an hour. If the task is in the Draft or Pending Dispatch states, you can edit this field.
Work type	The type of work required to complete the task. The available choices are: Break Fix, Install, or Planned Maintenance
Under warranty	Option that indicates a warranty exists for one or more configuration items related to the task.
Description	Detail of the work to be performed at the work location. Complete detail about the problem helps avoid extended communication with the customer in the later stages of the work order life cycle.
Assignment group	Group that has contains the individual agent or vendor to complete the task. By default, this field shows the recommended assignment groups based on the location, asset, and skills for the task. If the field is empty, the system searches for the group covering the territory that includes the location of the task.
Assigned to	Shows the agent or manager currently assigned to the task

Track or add work order task information on a mobile device

View activities related to your work order task through the Field Service Contractor for mobile application. You can also add documents, images, or work notes to the work order task record.

Before you begin

Role required: wm_ext_agent or wm_ext_manager

About this task

The Activity Stream screen tracks and shows all the information related to a work order task since it was created. Each time you pause or resume work on the task, a timestamp is captured in the activity stream and the actual time you worked on the task is automatically calculated.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. Tap **My work**.
3. Tap **Today's tasks**.
4. Open the work order task.
5. On the work order task form, tap **Activity Stream**.
6. View the work order task activities.
7. **Optional:** Add a document, image, or comment.

Close a complete work order task on a mobile device

Close work order tasks to complete a task for which the issue is fixed or resolved through the Field Service Contractor for mobile application.

Before you begin

Role required: wm_ext_agent

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Today's tasks**.
3. Open a work order task that is already in progress.
4. Tap **Close Complete**.
5. Enter the notes describing the closure in the **Closure Notes** field.
The Closure Notes information is copied to the Activity Stream tab in a work order task form.
6. **Optional:** Automatically create a work order task to follow up on any pending work from the current work order task by enabling the **Create a Follow-up Task** option.
The new work order task will be assigned to your group.
7. Tap **Submit**.

Confirmation messages are displayed depending on whether you enabled the **Create a Follow-up Task** option.

- If you have not enabled the option, the confirmation message **Task closed successfully** is displayed.
- If you have enabled the option, the message **You have 2 messages** is displayed.
Tapping **View** on the message displays the success confirmation message and a message providing the number of the follow-on task that was created.

Result

The task is closed. If you created a follow-up work order task, you can access it by navigating to **My work > My group tasks**.


Close an incomplete work order task on a mobile device

You can close a work order task as incomplete if there is work pending on the task through the Field Service Contractor for mobile application.

Before you begin

Role required: `wm_ext_agent`

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Today's tasks**.
3. Open a work order task that is already in progress.
4. Tap the more actions () icon.
5. Tap **Close Incomplete**.
6. Provide the reason in the **Closure Notes**.
The Closure Notes information is copied to the **Activity Stream tab** in a work order task form.
7. **Optional:** Automatically create a work order task to follow up on any pending work from the current work order task by enabling the **Create a Follow-up Task** option.
The new work order task will be assigned to your group.
8. Tap **Submit**.

Confirmation messages are displayed depending on whether you enabled the **Create a Follow-up Task** option.

- If you have not enabled the option, the confirmation message Task closed successfully is displayed.
- If you have enabled the option, the message You have 2 messages is displayed. Tapping **View** on the message displays the success confirmation message and a message providing the number of the follow-on task that was created.

Result

The task is closed. If you created a follow-up work order task, you can access it by navigating to **My work > My group tasks**.


Pause or resume work order task tracking on a mobile device

Record a break from a work order task through the Field Service Contractor for mobile if you are unable to continue the work for any reason.

Before you begin

Role required: wm_ext_agent

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Today's tasks**.
3. Open a work order task that is in progress.
4. Tap the more actions () icon.
5. Tap **Pause work**.
On the work order form, the button toggles to **Resume Work**.
6. Tap **Resume Work** when you are ready to work on the work order task again.

View recently closed work order tasks on a mobile device

View the work order tasks that are closed in the last seven days in the ServiceNow Agent mobile application.

Before you begin

Role required: wm_ext_agent or wm_ext_manager

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Recently Closed Tasks**.
3. Review the work order tasks from the Recently closed tasks list.
The list displays the tasks closed in the last seven days.

Sign on closed work order on a mobile device

Customers can digitally sign and confirm work order tasks that are closed with the Closed Complete or Closed Incomplete state.

Before you begin

Role required: wm_ext_agent or wm_ext_manager

About this task

When a work order is closed, you are notified with a link to the work order. Open the work order to request a signature from the customer.

Note:

The work order closes only when all its related work order tasks are closed.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **Recently Closed Tasks**.
3. Tap the work order task from the list that is in the Closed Complete or Closed Incomplete state.
4. Tap the **Parent** work order number in the work order task form.
5. **Optional:** Tap **Preview** to review the work order details.
6. Tap **Sign & confirm** to capture the customer signature.
7. Sign the closed work order.
 - To enter your name, click **Type signature**.
 - To sign your name, click **Draw signature**.
8. Click **Accept and Confirm**.

Request inventory using the Field Service Contractor for mobile application

Request inventory to receive parts when your stock gets low or you need a part for a particular work order.

Before you begin

Role required: wm_ext_agent, wm_ext_manager

About this task

You can request the required parts from your group or personal stockroom. If you request parts from the group stockroom, the transfer orders are automatically generated.

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. On the **My work** navigation tab, tap **My Tasks**.
3. Select the work order task that needs parts.
4. Tap on the **Parts** tab.
5. Under part requirements, tap **Create Part Requirement**.
6. Tap **Model**.
7. Select a part model.
8. In the **Required quantity** field, enter the total quantity of the parts required to complete the task.
9. In the **Required by date** field, enter the date by which all parts should be delivered.
10. Enable the **Mandatory** option to specify the parts required to perform the work order task.
11. Tap **Submit**.
 - A message appears as the part requirement is created.
12. Navigate back to the part requirements list screen and tap the part requirement card.
13. Tap **Find part** to locate the specific part.
 - The stockroom locations appear on the screen.
14. Tap the stockroom from which you want to receive the parts and then tap **Source part**.

15. Select the stockroom to which the sourced parts will be transferred.
For example, if you need to receive parts to your stockroom then select your personal stockroom.
16. In the **Quantity** field, enter the quantity of the parts required to complete the task.
17. Tap the **Next** icon.
18. Navigate back to the **Inventory** screen.

Result

The Part Requirements and Transfer Orders related lists are updated automatically in the work order task form.

View inventory details using the Field Service Contractor for mobile application

View details of available and defective parts in your inventory.

Before you begin

Role required: wm_ext_agent, wm_ext_manager

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. Tap **Inventory**.
3. Tap **My inventory**.
The available and defective parts appear in their respective tabs.
4. View part details.
 - To view details of the available parts, tap **Available** and select a part to view its details.
 - To view details of the defective parts, tap **Defective** and select a part to view its details.

pick up parts using the Field Service Contractor for mobile application

Pick up the part by transferring it from an available stockroom when you are at a task site and need a missing part to complete your job.

Before you begin

Role required: wm_ext_agent, wm_ext_manager

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. Tap **Inventory**.
3. Tap **Part Transfers**.
4. Tap **Pick Up**.
5. Tap a part for pick up, swipe to the left and select **Confirm pickup**.
The sourcing stages for the part appears. If the part is in **Received** stage, you can confirm pick up.
6. Click **Confirm pickup**.

Result

The sourcing stage moves to Delivered and the part is added to your inventory and is marked as available.


Complete questionnaire for work order task using the Field Service Contractor for mobile application

Answer to the preset questions associated with a work order task to gather and store the responses for future reference.

Before you begin

Role required: wm_ext_agent, wm_ext_manager

Procedure

1. Access your instance using the ServiceNow Agent mobile application.
2. Tap **My Work**.
3. In the **My Tasks** section, tap **See All**.
4. Select the work order task for which you want to fill out the questionnaire.
5. Tap the Overflow  icon and then select **Take questionnaire**.
6. On the Pending tab, tap the questionnaire that you are ready to take.

Note:

If the questionnaire is mandatory, you cannot close the task until you complete the questionnaire.

7. Answer each question in the questionnaire.
8. Tap **Submit**.
Once submitted you can view but cannot change your questionnaire.

Result

The submitted questionnaire appears in the Completed tab.

Crew on Mobile Agent

Add equipment or members to your crew using the Now[®] Mobile Agent application.

Add members or equipment to your crew

Add crew members or equipment to your crews on the Now Mobile Agent application.

Add members or equipment to your planned crew

Add members or equipment to your crew to organize your crew and resources.

Before you begin

To add equipment, administrators must activate the Field Service Resource Scheduling plugin (com.snc.fsm_resource_scheduling). For more information, see [Activate Resource Scheduling](#).

Role required: wm_agent and crew_moderator

About this task

You can add members or equipment to your planned crew to ensure that your crew is properly staffed and equipped for their work. Planned crews are groups of members and equipment that persist after a completed task.

Procedure

1. Navigate to **My work > My crews**.
2. Select a crew.

3. Choose from the following:

- To add members, tap **Members**, then tap **Add members**.
- To add equipment, tap **Equipment**, then tap **Add equipment**.

4. Select the members or equipment that you want to add.

5. Tap Submit.

Add members or equipment to a task crew

Add members or equipment to task crew meet the resource needs of a work order task.

Before you begin

To add equipment, administrators must activate the Field Service Resource Scheduling plugin (com.snc.fsm_resource_scheduling). For more information, see [Activate Resource Scheduling](#).

Role required: wm_agent and crew_moderator

About this task

Add members or equipment to a task crew. Task crews are ad hoc groups of members and equipment created to fulfill the needs of a work order task. Task crews don't persist after task completion.

Procedure

- 1. Navigate to My work > My Tasks.**
- 2. Select a work order task.**
- 3. By Task assignees, tap See all.**
- 4. Tap Add assignees.**
- 5. On the form, fill in the fields.**

Task Assignee Form

Fields	Description
Requirement	The resource requirement that this assignment fulfills.
Type	Determines what assignee type fulfills the requirement. Choose between Agent or Equipment assignee type.
Assignees	Members or equipment instances to assign to the work order task.

6. Tap Submit.

Add members or equipment to a task crew through resource requirements

View the resource requirements of a task and add the appropriate assignees to ensure agents are equipped and staffed.

Before you begin

To add equipment, administrators must activate the Field Service Resource Scheduling plugin (com.snc.fsm_resource_scheduling). For more information, see [Activate Resource Scheduling](#).

Role required: wm_agent and crew_moderator

About this task

Access the resource requirements of a task to see the skills and equipment needed to fulfill the task. Add members or equipment to satisfy the resource requirements, ensuring the crew is equipped and staffed for the task. Task crews are ad hoc groups of members and equipment created to fulfill the needs of a work order task. Task crews don't persist after the task is completed.

Procedure

1. Navigate to **My work > My Tasks**.
2. Select a work order task.
3. By **Resource requirements**, tap **See all**.
4. Select a resource requirement.
5. Tap **Add assignees**.
6. Select the assignees that you want to add.
7. Tap **Submit**.

Remove or release members and equipment from your crew

Remove or release crew members and equipment from your crews on the Now Mobile Agent application.

Remove members or equipment from your planned crew


Remove members or equipment from your planned crew so they can be assigned to other crews or tasks.

Before you begin

To remove equipment, administrators must activate the Field Service Resource Scheduling plugin (com.snc.resource_scheduling). For more information, see [Activate Resource Scheduling](#).

Role required: wm_agent and crew_moderator

Procedure

1. Navigate to **My work > My crews**.
2. Select the crew or equipment that you want to remove.
3. Tap the **Remove** icon ().
4. Tap **Remove**.

Remove members or equipment from a task crew

Remove members or equipment from a task crew so they can be assigned to other crews or tasks.


Before you begin

To remove equipment, administrators must activate the Field Service Resource Scheduling plugin (com.snc.resource_scheduling). For more information, see [Activate Resource Scheduling](#).

Role required: wm_agent and crew_moderator

Procedure

1. Navigate to **My work > My Tasks**.
2. Select the work order task where the task crew member or equipment is assigned.

- Find the member or equipment that you want to remove, and tap the **Remove** icon ().

Note:

If the task is in the Work in Progress state, **Remove** is replaced with **Release**.

- Tap **Remove**.

Release a task crew member

Release task crew members from work order tasks that are in the Work in Progress state.


Before you begin

Release only shows if the work order task is in the Work in Progress state. If not, task crew members must be removed. For more information, see [Remove members or equipment from a task crew](#).

-

Role required: wm_agent and crew_moderator

Procedure

- Navigate to **My work > My tasks**.
- Select the work order task where the task crew member is assigned.
- Find the task crew member that you want to release, and tap the **Edit** icon ().
- Tap **Release**.
A confirmation message appears. To proceed with the action, tap **Release**. To cancel, tap **Cancel**.

Edit member or equipment details

Edit the details of an individual planned crew member or equipment, as well as an entire crew on the Now Mobile Agent application. Mark members, equipment, and crews as active or inactive, or add details for task crew members.



Edit planned crew details

Edit the details of an individual planned crew member or an entire planned crew. Mark members and crews as active or inactive.

Before you begin

Role required: wm_agent and crew_moderator

Procedure

- Navigate to **My work > My crews**.
- Select the crew that you want to edit.
- Choose from the following:
 - To edit an assignee, tap the **Edit** icon () by the selected assignee.
 - To edit the crew, tap the **More actions** icon ().
- Edit the details on the form.
- Tap **Update**.


Edit task crew member details

Adjust the actual work start, actual work end, or resource requirement of a task assignee in a task crew.

Before you begin

Role required: wm_agent and crew_moderator

Procedure

1. Navigate to **My work > My tasks**.
2. Select a work order task.
3. Tap the **Edit** icon () by the selected assignee.
4. Edit the details on the form.
5. Tap **Update**.

Push notifications on Mobile Agent

Assign tasks and send reminders to Field Service agents using push notifications.

Push notifications provide several advantages:

- Agents and technicians can receive actionable push notifications about tasks on their mobile devices.
- Dispatchers and managers can use push notifications to assign tasks to groups or to individual agents and to send reminders.
- Agents and technicians can perform push notification actions from their mobile devices without opening the application, such as accepting or rejecting tasks, part requests, and replying to customer comments on tasks.

Related topics

Mobile push notifications

Configure actionable push notifications

Mobile push notification components

Accept or reject requests from push notifications

As a Field Service agent, you can accept or reject work order tasks using push notification actions without having to open the Now Mobile Agent mobile app.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to the push notification received on your mobile device.
2. Tap the push notification.
3. Process the request.

View and reply to task comments from push notifications

As a Field Service agent, you can view and reply to the comments given by customers in work order tasks using push notification actions without opening the ServiceNow Agent mobile app.

Before you begin

Role required: wm_agent

Procedure

1. Navigate to the push notification received on your mobile device.
2. Read the text displayed in the push notification to view the customer comment.
3. **Optional:** Reply to the comment.
 - a. Long-press the push notification.
 - b. Enter your text in the **Reply** field.
 - c. Notify the end user that you have responded by entering the name of the person in your text followed by the @ sign.
 - d. Click **Send**.

Start a Sidebar discussion on the Now Mobile Agent application

Create and view Sidebar discussions on the Mobile Agent application.

Before you begin



Role required: wm_agent

Ensure the Sidebar for Field Service Management plugin (com.sn_fsm_sidebar) is activated. For more information, see [Activate Sidebar for the Field Service Mobile Agent application](#).

About this task

Create and view Sidebar discussions on the Mobile Agent application. You can create Sidebar discussions from the work order task record.

Procedure

1. Navigate to a work order task.
2. Tap the **Sidebar**  icon.
3. Tap the **Create Sidebar discussion**  icon.
4. On the form, fill in the fields.

Start a Sidebar discussion form

Field	Description
Record number	Work order task this discussion is assigned to.
Subject	Subject of the discussion.
Add participants	Participants who can view and reply to the discussion.
Include a brief message for participants	Initial message to participants in the discussion.

5. Tap **Start discussion**.

What to do next

Participants can view and reply to the discussion. The discussion can be accessed from the work order task record or from the global Sidebar.

Related topics

[Summarize a Sidebar discussion on the Now Mobile Agent application](#)

Job site maps on Mobile Agent

View a map of the job site and get directions to the specific on-site location.

Before you begin

To view site maps, administrators must activate the Site Mapping for Field Service Management plugin (com.). For more information, see [Activate Site Mapping for Field Service Management](#).

Role required: wm_agent

Procedure

1. Select **My work**.
2. Select a work order task.
3. Select **Site**.
4. Select **Get directions**.

Linear assets on Mobile Agent

Manage work order tasks for linear assets to ensure efficient and effective maintenance and inspection processes.


When working on a work order task for a linear asset, the agent accepts the tasks for linear assets to initiate the inspection process. By following the start and end location details provided in the task, agents can start inspecting the linear asset. During the inspection, if agents identify any areas that require attention or maintenance, they can immediately create a new work order for them.

Start work on a linear asset task

Examine the linear asset specified in the work order task to pinpoint or select segments or areas in need of attention or maintenance, and generate a corresponding work order.

Before you begin

Ensure the following setup:

- The work order task is either in the **Work In Progress** or **Accepted** state.
- Enable location tracking from your mobile device to record your location in the geo history table. For more information, see [Using location tracking for mobile](#) .

Role required: wm_agent

Procedure

1. Navigate to the Now Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, display all the work order tasks by selecting **See All**.
4. Select and open the desired work order task.
5. View the linear asset segments to be inspected by tapping the **Related** tab and going to the **Assets** section.
Each segment displays the asset name and a sequential number along with the start and location details.

6. On the segment that you want to start inspecting, tap **Start Work**.
7. Open the asset page and review the asset details by tapping the selected segment.
8. View the linear asset segment on the map by tapping the Google Maps launcher icon (📍) in the Start location field.
The map launches and the linear asset location is displayed. The linear segment is highlighted in dark blue color for better identification.
9. Provide additional information about the affected linear asset by tapping **Take questionnaire**.
For more information, see [Complete a questionnaire for work order task](#).
10. If you identify an issue for a linear asset when inspecting a segment, create a new work order.
 - a. Tap **Create Work Order**.
 - b. Provide additional information related to the identified issue by uploading an attachment such as photo, image, or document in the **Add attachment** field.
 - c. On the form, fill in the fields.

Field	Description
Location	The live location of the agent. This field is auto-populated with the agent's current location.
Lat long	The latitude and longitude for the marker. This field is automatically populated with the latitude and longitude value of the agent current location. You can edit these values if required.
Asset	List of linear asset segments linked to the work order task.
Issue	Descriptive name for the issue. For example, a pothole on the road.
Issue Description	Detailed description of the issue.

- d. Select **Submit**.
11. Tap **Mark Complete**.
12. **Optional:** Inspect more segments by repeating the steps starting with step 6.

Result

You have successfully inspected the selected linear asset segments in a work order task and created corresponding work orders for any segments requiring attention or maintenance.

Playbooks on Mobile Agent

Playbooks for the Now Mobile Agent application provide a guided experience for completing work order tasks on a mobile device.

Playbooks for the Now Mobile Agent

Playbooks for the Now Mobile Agent application include stages for completing a work order task. Playbooks can be viewed under a selected work order task on the **My work** page. Tasks that have an active playbook associated with it display a **View Playbooks** button.

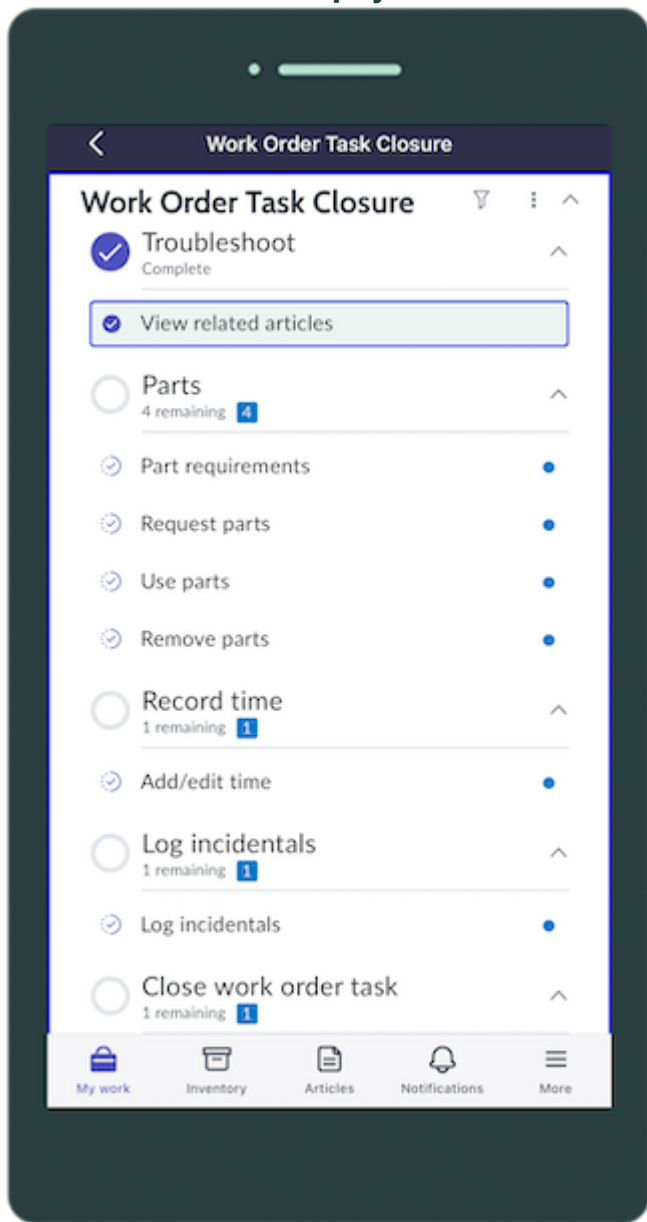
Playbooks are organized in stages to provide a guided experience. They direct you to new or existing features of the mobile application and maintain a checklist of completed stages on that work order task. Stages can be marked complete or skipped at your discretion. The stages progress as follows:

1. Troubleshoot
2. Parts
3. Record time
4. Log incidentals
5. Verify work completion
6. Close work order task

For more information, see [Playbooks on Mobile Agent](#).

Now Mobile Agent application playbooks for Field Service Management

Work Order Task Closure playbook on the Now Mobile Agent app



Troubleshoot

The Troubleshoot stage contains the **View related articles** module. Access articles from your organization's knowledge base to find helpful information relevant to the work order task.

For more information on accessing knowledge articles in Now Mobile Agent, see [Knowledge articles on Mobile Agent](#).

Parts

The Parts stage contains the **Part requirements**, **Request Parts**, **Use parts**, and **Remove parts** modules. Create part requirements, request parts, and mark those parts as in use or remove them to maintain an accurate inventory.

For more information on requesting parts, see [Request inventory](#).

Record time

The Record time stage contains the **Add/edit time** module. Track the date and duration that you worked on the task.

For more information on recording time worked, see [Record time worked on a work order task](#).

Log incidentals

The Log incidentals stage contains the **Log incidentals** module. Log incidental expenses related to work orders that arise during the task or are otherwise related to the task.

For more information on logging incidentals, see [Record an incidental expense for a work order task](#).

Verify work completion

The Verify work completion stage contains the **Verify work** module. Review a checklist to ensure the work order task is complete.

Close work order task

The Close work order task stage contains the **Close work order task** module. Close the task as complete or incomplete with notes.

For more information on how to close a task, see [Close a work order task](#).

Virtual Conferencing on Mobile Agent

Initiate a conference call from your native mobile application with the help of Field Service Management Virtual Conferencing Integration.

As a field service agent you can initiate a Zoom or Microsoft Teams meeting from the Now Mobile Agent application. You can set up both Zoom and Microsoft Teams conference bridges or either one in your ServiceNow instance.

If you have set up both conference bridges in your ServiceNow instance, you can select either bridge option to [make a call from the Now Mobile Agent application](#). Selecting Zoom enables you to connect with customers and your peer agents. Microsoft Teams enables you to connect with your peers only.

Make a call from the Now Mobile Agent application

Select a conference bridge option to initiate a conference call from the Now Mobile Agent application to connect virtually with your customer and peer agents.

Before you begin


Role required: wm_agent

About this task

The option Make a Call appears only if you have set up both Zoom and Microsoft Teams in your ServiceNow instance.

Procedure

1. Navigate to the Field Service mobile application.
2. Tap **My Work**.
3. In the **My Tasks** section, tap **See All**.

4. Select and open the work order task.
5. Tap the More actions () icon and then select **Make a Call**.
6. Tap **Conference Bridge** and then select a bridge.
 - To make a Zoom call, tap Zoom.
 - To make a Microsoft Teams call, tap Microsoft Teams.

For more information about making a call, see [Initiate a Zoom or Microsoft Teams meeting from the Now Agent mobile application](#).

Initiate a Zoom or Microsoft Teams meeting from the Now Agent mobile application

Initiate a Zoom or Microsoft Teams meeting from the Now Agent mobile application to resolve customer issues by assisting them virtually while out of the office or away from your desktop computer.

Before you begin

Role required: wm_agent

About this task


You can host a Zoom or Microsoft Teams meeting to do video conferencing and screen sharing with your customers from the Now Agent mobile application. You can invite multiple participants to the meeting when initiating a conference call or add a new participant after the call is initiated.

On initiating the meeting, participants receive an email and SMS notification that includes work order task number, a short description of the issue, and the meeting link.

Note:

The conference call details of a Zoom or Microsoft Teams meeting are stored in the Notify Conference Calls [notify_conference_call] table.

Procedure

1. Navigate to the Field Service mobile application.
2. Tap **My Work**.
3. In the **My Tasks** section, tap **See All**.
4. Select and open the work order task.
5. Initiate the meeting.
 - a. Tap the More actions () icon and then select the call platform.
 - For a Zoom call, select **Make a Zoom Call**.
 - For a Microsoft Teams meeting, select **Make a MS Teams Call**.
 - b. Select required participants for the conference call.

Option	Description
My Group Agents	Agents from the assignment group mentioned in the work order task.
Users	Specific users such as a manager, dispatcher, and so on.

Option	Description
Groups	Any groups in your instance.
Customer	<p>For Zoom calls, you can add a customer mentioned in the work order task.</p> <p>You must install the Customer Service with Field Service Management plugin to see the customer name on work order tasks. For more information, see Integration with Customer Service Management.</p>

- c. After the participants list is finalized, tap **Submit** to initiate the conference call.
- d. Tap the conference call ID to enter into the active conference call, for example, CC000XXXX.

6. Join the meeting by tapping **Join** from the Home screen.

7. **Optional:** Invite more participants to an active call by tapping **Add Participants**.

(Optional) As a host of the meeting, you can admit participants by sharing the meeting URL with them. The number of participants you can admit depends on your Zoom or Microsoft Teams account settings.

If SMS configuration is enabled, the customer receives an SMS with the link to join the conference call. Otherwise, the customer receives an email with the meeting link.

8. **Optional:** Record the meeting.

For more information, see the [Zoom Help Center](#) for Zoom calls or [Record a meeting in Teams](#) for Microsoft Teams calls.

The recording of the meeting is added to the Conference form page in the Now Agent mobile application.

Knowledge articles on Mobile Agent

Search relevant information from knowledge articles and see when your team members are on-site and if they are on schedule.

Access knowledge articles relevant to your work order tasks

Search through articles from your organization's knowledge base to find helpful information relevant to a work order task assigned to you.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. View or search for the knowledge article.

Related topics

[Configure the Knowledge Management Service portal](#)

Access information about your team

Know when your team members are on-site working on a task and if they are on schedule to complete their tasks. You can connect with them by calling or sending a text message.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. In the footer navigation bar, tap **More** and go to **My Team**.
3. Tap the desired team and view the group members.
The agent's email, address, contact number, current schedule status, location are displayed.
4. Connect with a team member.

Access knowledge articles attached to your work order task

Access knowledge articles that are attached to work order tasks on the Now Mobile Agent application.

Before you begin

Role required: wm_agent or wm_dispatcher

About this task

You can view the content of knowledge articles that are attached to your work order tasks in both offline and online modes. The knowledge article view page on Now Mobile Agent provides several details about a displayed article, such as the article number, short description, article content, author, and so on.

Note:

The article view count is not updated in the mobile view page.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks**, tap **See All**.
4. Select and open the desired task.
5. Tap **Related > Knowledge Articles**.
6. Open the desired article.

Result

The article opens in a Knowledge Details page displayed in another tab within the ServiceNow Agent mobile app. The tab name includes the knowledge article number and the last updated time period.

Provide feedback for knowledge articles

Provide feedback on a knowledge article by rating the article, marking the article as helpful or not helpful, and posting and replying to comments for the article on the Now Mobile Agent application.

Before you begin

Role required: wm_agent

About this task

You can provide feedback on a knowledge article in either online or offline mode. Note that the comment feature is not enabled in offline mode.

Procedure

1. Open the Now Mobile Agent application.
2. Open an article that you want to view from the list of knowledge articles.
 - a. Navigate to the Now Mobile Agent application.
 - b. Tap **My Work**.
 - c. In the **My Tasks**, tap **See All**.
 - d. Select and open the desired task.
 - e. Tap **Related > Knowledge Articles**.
 - f. Open the desired article.
3. Provide feedback for the article by marking it as helpful or not helpful, rating it, or leaving a comment.

Access related knowledge articles

Discover articles with similar information on a topic while viewing a knowledge article.

Before you begin

Role required: wm_agent

About this task

The Related articles list appears only if the administrator has manually attached related articles to the parent knowledge article.

Note:

Related knowledge articles are accessible in online mode only.

Procedure

1. Open the Now Mobile Agent application.
2. Open an article from the list of knowledge articles.
 - a. Navigate to the ServiceNow Agent mobile app.
 - b. Tap **My Work**.
 - c. In the **My Tasks**, tap **See All**.
 - d. Select and open the desired task.
 - e. Tap **Related > Knowledge Articles**.
 - f. Open the desired article.
3. Tap the **Related Lists** tab.
4. Tap **Related articles** and open an article that interests you.

Result

The Related articles list displays the recommended knowledge articles.

Access translated knowledge articles

View translated versions of published knowledge articles through the ServiceNow Agent mobile app.

Before you begin

Role required: wm_agent

About this task

An article is available in other languages only if an author has created the translation for that knowledge article. If an article translation is not available in your selected language, then the article appears in the original language in which it is created.

Note:

Translated knowledge articles are accessible in online mode only.

Procedure

1. Open the Now Mobile Agent application.
2. Open an article from the list of knowledge articles.
 - a. Navigate to the ServiceNow Agent mobile app.
 - b. Tap **My Work**.
 - c. In the **My Tasks**, tap **See All**.
 - d. Select and open the desired task.
 - e. Tap **Related > Knowledge Articles**.
 - f. Open the desired article.
3. Tap the **Related Lists** tab.
4. Tap **Translated articles**.
5. Open an article from the list of translated versions of the article.

Working offline on Mobile Agent

When you are at a task site that doesn't have an internet connection, you can work on field service tasks, record time, track asset usage, create part requirements, and complete work orders and tasks using the Now Mobile Agent application.

Run the Now Mobile Agent application in offline mode

Download field service data to the application cache and enable mobile offline mode to execute field service tasks at locations with no internet connection. Synchronize the data when your mobile device is online again.


Before you begin

Role required: wm_agent or wm_dispatcher

About this task

You can view a list of all actions taken when your device was offline and the time stamp for each action in the offline mode outbox. Generates flat data of agent schedules that are used in the mobile application for scheduled downloads of offline payloads. The administrator can also choose to download the cache automatically in the background by setting up the [system properties](#). This helps to at least give you one download of data at the beginning of the shift.

Procedure

1. Open Now Mobile Agent application.
2. Log in to your Field Service application instance.
3. Do the following: Tap the menu icon and select **Offline**.
 - Tap **More**.
 - Tap **Settings**.
 - Tap **Offline**.
4. To automatically download the scheduled cache in background, tap the **Enable** button. For more information, see [Scheduled offline caching](#) . Scheduled offline caching automatically downloads your cache according to your work schedule. Scheduled caching works in the background, so you can continue to use the application while the download completes. You can also enable **Wi-Fi only** to download cache when you are connected to Wi-Fi. This provides seamless synchronization when the device turns online.
5. Do one of the following to download data and go offline.
6. Update or clear cache on the mobile application. If you take your app online and then offline again, you can download the updated data to the app cache. You can clear the cache after you take the app online.
 - To update the app cache, tap **Update cache**. The app reloads the data to the cache. Refer to the previous step to take the app offline.
 - To clear the cache, tap **Clear cache**.
7. Synchronize updated records. The application synchronizes all of the data that you updated offline.

Related topics

[Updating records without internet connection](#) 

Working with tasks when your mobile device is offline

Manage tasks, record time, track inventory, pause tasks, complete tasks, and view knowledge articles using your mobile device when you're offline.

With your Field Service instance on your mobile device in offline mode, you can:

Execute tasks assigned to you at the task location.

- Start working on tasks by [accepting or rejecting tasks assigned to you](#).
- Record the time when you [start to travel to the task site or start the work on a task](#).

View knowledge articles

- When you want to find information on how a similar work order task has been performed [Access knowledge articles attached to your work order task](#).
- When you want to rate an article [Provide feedback for knowledge articles](#).

Track asset usage.

- Tap **My Inventory** on your mobile app to view your inventory.
- After you work on a task [record assets used for a task](#).

Record an incidental expense.

Record an incidental expense that occurred when you're offline: [Record an incidental expense](#)

Create a work order task.

Create, work on, and mark a task as closed complete while offline: [Create a work order task](#)

Pause work order tasks.

When you want to take a break from the task activity [pause a work order task](#).

Create a part requirement.

Create a new part requirement when offline: [Request inventory](#)

Complete work orders and work order tasks.

- After you complete the work on a task [close a work order task](#).
- When you finish all tasks related to a work order [complete the work order](#).

Log incidentals.

Report the expenses such as car rental cost, mileage, car rental cost, and vendor cost to execute the work order tasks by [logging incidentals](#).

Complete questionnaire

Take questionnaires when mobile is offline. For more information, see [Complete questionnaire](#).

You can close work order SLAs in offline mode. The Field Service mobile application records the device timestamp when the SLA was closed. After you connect your device online and synchronize the data, the SLA admin can repair the SLA to display the actual time the SLA was closed.

Repair an SLA after closing a work order on the Now Mobile Agent application

Repair an SLA to capture the device timestamp that was recorded when an SLA was closed on the Now Mobile Agent application in offline mode.

Before you begin

Role required: sla_admin or admin

About this task

Agents and dispatchers can close work-order SLAs when their mobile application is offline. The mobile application records the device timestamp when the SLA was closed. When the mobile application is online again and the data is synchronized, you can repair the SLA and capture that device timestamp. That reflects the actual time when the SLA was closed.

Procedure

1. In your desktop instance, navigate to **Field Service > SLAs Updated Offline**.
2. Perform one of the following actions:

- Select an SLA to repair.
- If you have more than one SLA to repair, select those SLAs.

3. Click **Repair**.

Related topics

[Repair SLAs](#) 

Closing tasks on Mobile Agent

A work order is automatically closed when all work order tasks associated with it have been closed.

Close a work order task

Close a work order task as complete after you finish the work required for the task. You can close the work order task as incomplete and optionally create a follow-on task to complete.

Before you begin

Agents can only close the work order tasks assigned to them. The work order task must be in the **Work in Progress** state.

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, tap **See All**.
4. Select the work order task you want to close.
5. Do one of the following.
 - When all work order tasks associated with a work order are closed, the work order is automatically closed.

What to do next

You can view the closed work order tasks of last seven days by navigating to **My Work > Recently Closed Tasks** in the Now Mobile Agent application.

You can change the time period for displaying the last closed work order tasks in the Recently Closed Tasks list. For more information, see [Configure the recently closed work order tasks list](#).

Related topics

[Closing work orders](#)

[System properties](#)

Respond to a reviewed task

Respond to a task that was sent back to you for review. Update the work order task with the requested details and submit the task back to reviewer.

Before you begin

Role required: wm_agent

Ensure that the Field Service Quality Management plugin is active. For more information, see [Activate Field Service Quality Management](#).

About this task

When you close a work order task, the task is sent to a reviewer. The reviewer can either mark the task as complete or request more information. For more information, see [Review a task](#). You will receive a notification about the work order task that needs review.

Procedure

1. Open the Now Mobile Agent application.
2. Navigate to the work order task.
 - Navigate to **Notifications** and select the work order task that needs review.
 - Navigate to **My work > Closed tasks > Needs Information** and select the work order task that needs review.
3. Add the information that was requested.

Note:

The required information depends on what was requested.

4. Tap **Update work order task**.
5. Provide details about what was updated in the **Notes** field.
6. Tap **Submit**.

Result

The work order task is sent back to the reviewer. The reviewer can either close the task or send back to you for review.

Example: Add the time worked

The reviewer sent the work order task requesting that you add the time worked. You navigate to the work order task through notifications. In the Time worked related list, you select **Record time** and fill out the form to record the time worked. You navigate back to the work order task details and tap **Update work order task**. You enter "I have entered my time worked" in the **Notes** field and submit the task.

Complete a work order

Receive a digital signature and confirmation from a customer that a work order has been completed.

Before you begin

The **Sign and Confirm** button must be enabled to receive digital confirmation from a customer after a work order is closed.

The signed PDF summaries capability must be enabled to generate a work order summary and get the customer signature on the work order after it has been closed. For more information on enabling the PDF summaries capability, see [Signed PDF summaries for closed work orders](#).

When all work order tasks associated with the work order are closed, the work order is automatically closed.

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
2. Locate the work order you want to complete.

- a. Tap **My Work**.
 - b. In the **My Tasks** section, tap **See All**.
 - c. Select the work order task associated with the work order you want to close.
 - d. Select the work order number.
 - e. Select the work order to view the details.
3. Receive the signature and confirmation from the customer for completing the work order.
 - a. Select the **Details** tab.
 - b. Tap **Preview** to review the details of closed work order.
 - c. Tap **Sign & Confirm**.
 - d. Tap the **Signature** field.
 - e. In the signature pad, receive the signature from the customer to confirm the completed work.
 - f. Accept the signature.
 - On an iOS device, tap **Submit**.
 - On an Android device, tap the done icon.
- The signed PDF summary is generated and attached to the work order form. You can view the signed PDF summary in the activity stream.

Note:

Click the trash icon to cancel the signature.

Enable customers to sign and confirm work orders on your mobile device

Enable customers to digitally sign and confirm a work order on the Now Mobile Agent application after it has been closed.

Before you begin

Role required: admin

Procedure

1. On your desktop Field Service instance, navigate to **System Mobile > Mobile Applications**.
2. Select **Field Service**.
3. From the Folders related list, select **My Work**.
4. From the Screens belonging to the Folder related list, select **Work Order**.
5. Do one of the following to enable the **Sign and Confirm** button.
 6. Select **Sign & Confirm**.
 7. Enable the **Active** check box.
 8. Select **Update**.

Cancel or suspend a work order


Cancel a work order if it is no longer needed or suspend a work order if you want to work on it later.

Before you begin

You can cancel or suspend a work order that has not been closed.

Role required: wm_agent or wm_dispatcher

Procedure

1. Open the Now Mobile Agent application.
 2. Tap **My Work**.
 3. In the **My Tasks** section, tap **See All**.
 4. Select the work order task.
 5. Select the work order number associated with the task.
The work order number, work order state, and the short description for the work order appear.
 6. Select the work order to view the details.
 7. Tap the more actions () icon and cancel or suspend the work order.
 - To cancel the work order, select **Cancel Work Order**.
 - To suspend the work order:
 - a. Select **Suspend**.
 - b. Select **Suspend Note**.
 - c. Enter the reason to suspend this work order.
 - d. Cancel the work order.
 - On an iOS device, tap **Back**.
 - On an Android device, tap the back icon.
 - e. Go back to the work order screen.
 - On an iOS device, tap **Back**.
 - On an Android device, tap the done icon.
- When you are ready to work on it again, tap the overflow icon and select **Resume**.

Pause a work order task

Record a break from a work order task in the Now Mobile Agent application if you are unable to continue the work for any reason. You can resume the work order task when you start working on it again. The system automatically tracks and calculates the actual time taken to complete the task even though you worked at different intervals.

Before you begin

Role required: wm_agent

About this task

The work order task must be in the Work in Progress state to pause the timer.

Procedure

1. Open the Now Mobile Agent application.
2. Tap **My Work**.
3. In the **My Tasks** section, tap **See All**.
4. Open the work order task that you want to pause.
5. Click **Pause Work**.
The button toggles to **Resume Work** automatically. A pause on the work order task disables mobile actions such as Use Part, Close Complete, Edit, Questionnaires, Remove Part, Create Part Requirement, Record Time, and Close Incomplete on the work order task. Your **Work agent status** is automatically updated as **Work paused** to determine that you have paused working on a task.

- Click **Resume Work** when you are ready to work on the activity again.
Your **Work agent status** is automatically updated as **On site** to determine that you have resumed working on a task.

Result

Each time you pause or resume work on the task, a timestamp is captured in the activity stream and the actual time you worked on the task is automatically calculated. An entry for the time worked is created in the **Time Worked** related list.


Record time worked on a work order task

Record the duration for executing a task using the Now Mobile Agent application.

Before you begin

Role required: wm_agent or wm_dispatcher

Procedure

- Open the Now Mobile Agent application.
- Tap **My Work**.
- In the **My Tasks** section, tap **See All**.
- Select a work order task to record the time.
- Tap the more actions () icon and then select **Record Time**.
- Select the desired items from any of the following fields:

Field	Description
Work Date	Date the task was executed.
Category	Category for the accomplished task.
Time Worked (Hours)	Number of hours worked on the task.
Time Worked (Minutes)	Number of minutes worked on the task.
Comments	Additional notes about the task.

- Record the task duration.
 - On an iOS device, tap the **Submit** button.
 - On an Android device, tap the send icon.

Record an incidental expense for a work order task

Record incidental expenses associated with your business travel through the Now Mobile Agent application to execute work order tasks.

Before you begin

Role required: wm_agent

About this task

Log incidentals to manage your expenses such as car rental cost, mileage, and vendor costs that you spend through the mobile application to execute your work order task. You can attach a receipt for a logged incidental.

Procedure

1. Open the Now Mobile Agent application.
2. From the **My Work** tab, select a work order task to record related expenses.
3. Tap the top-right menu and tab **Log Incidental**.
4. From the **Type** field, select the type of this incidental.
5. From the **Currency** field, select the currency you used for the expense.
6. In the **State** field, indicate whether the expense has already occurred (**Incurred**) or has not yet occurred (**Pending**).
7. In the **Description** field, enter a description for the incidental you want to record.
8. Upload files or photos as attachment if applicable.
9. Record the expense for the incidental.
 - On an iOS device, tap the **Submit** button.
 - On an Android device, tap the send icon.

Edit or delete an incidental expense for a work order task

Edit or delete your logged incidentals from WOT forms or from My Incidentals applets.

Before you begin

Role required: wm_agent

Procedure

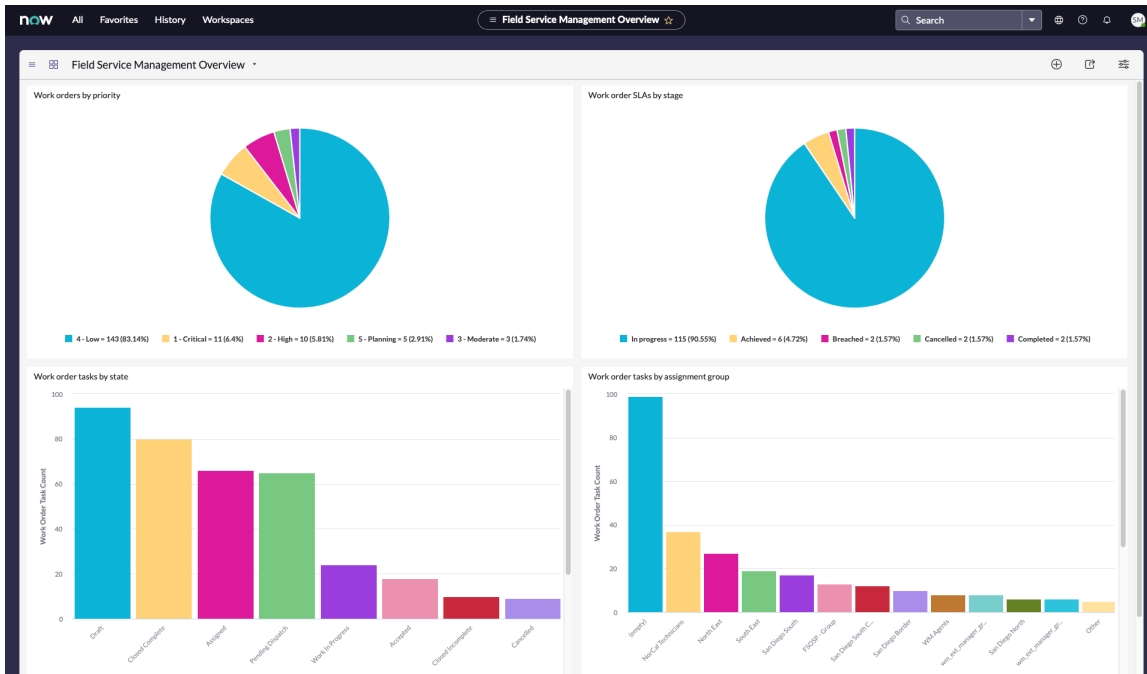
1. Open the Now Mobile Agent application.
2. Navigate to your incidentals in one of the following ways:
 - From WOT forms:
 - a. From the **My Work** tab, select a work order task.
 - b. Tap the **Related** tab.
 - c. Scroll down to the **Incidentals** tab.
 - From My Incidentals applets:
 - a. Tap **More** at the bottom-right corner.
 - b. Tap **My Incidentals**.
3. Tap an incidental to see details.
4. Tap the top-right menu and tap **Edit** or **Delete**.
5. Save the record.

Analytics and reporting for Field Service Management

Field Service Analytics and Reporting Solutions contain preconfigured dashboards with actionable data visualizations to improve your business processes and practices.

Use the Field Service Management Overview dashboard

Use the Field Service Management Overview dashboard to review the work orders by their order of priority. You can also view tasks by their assignment groups.



Required ServiceNow AI Platform roles

The `wm_basic` role is needed to track the status of work orders.

Use cases



The following use case provides an example of how an internal manager would use this dashboard.

Example of how the Field Service Management Overview Dashboard is used



User	Dashboard use
All users with the <code>wm_basic</code> role	Reviews the work order tasks by priority. Understands the state of the work order tasks.

Data visualizations

Work order visualization options

Title	Type	Source table	Description
Work order by priority	 Pie	[<code>wm_order</code>]	Overview of work orders based on their priority.
Work order SLA by stage	 Pie	[<code>task_SLA</code>]	Overview of work order tasks by their stage, such as In progress, Achieved, or Breached.

Work order visualization options (continued)

Title	Type	Source table	Description
Work order tasks by state		[wm_task]	Overview of work order tasks by their current state of progress.
Work order tasks by assignment group		[wm_task]	Overview of work order tasks based on the different assignment groups.

Monitoring operations in real time

Proactively monitor critical field service trends and track cost allocations with dashboards.

You can:

- Track how proactively issues were identified and reported
- Monitor how well field service resources were used
- Analyze the estimate time compared to the actual time that it takes to complete tasks
- Allocate, track, and report on expenses for all operations

Use the Field Service Management dashboard

The Field Service Management overview module provides a dispatch map that displays tasks and links to the related task records.

Before you begin

Role required: dispatcher.

Procedure

Navigate to **All > Field Service > Overview**.

The map view depends on whether or not the Field Service Management Geolocation Demo Data plugin (com.snc.work_management_geolocation.demo) is activated.

Example

The dispatch map view with geolocation enabled groups tasks and agents by proximity and displays related records in pop-up windows on the map.

Dispatch map with geolocation

Field Service Management Overview

Field Service Map
Filter

My Dispatch Map

Work Order SLAs by Stage

Stage	Count	Percentage
In progress	57	80.28%
Achieved	6	8.43%
Completed	4	5.63%
Breached	2	2.82%
Cancelled	2	2.82%

Work Order Tasks by Assignment Group

Assignment group	Work Order Task Count	Percentage of Count
NorCal Technicians	34	17.99%
(empty)	31	16.4%
North East	27	14.29%
South East	19	10.05%
San Diego South	16	8.47%
FSOSP - Group	13	6.88%
San Diego South Central	10	5.29%
San Diego Border	9	4.76%
WM Agents	8	4.23%
wm_ext_manager_group1	8	4.23%
wm_ext_manager_group2	6	3.17%
San Diego North	4	2.12%
Other	4	2.12%
Total	189	100%

Work Orders by Priority

Priority	Count	Percentage
4 - Low	80	72.07%
1 - Critical	13	11.71%
2 - High	10	9.01%
5 - Planning	5	4.5%
3 - Moderate	3	2.7%

Work Orders by State

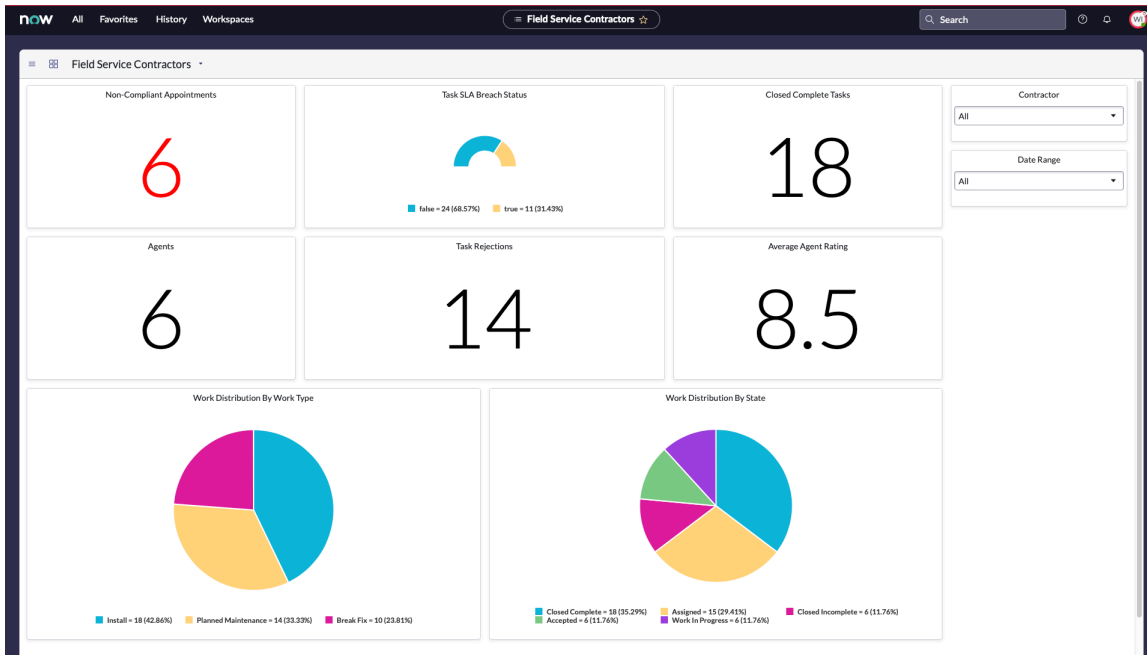
State	Work Order Count	Percentage of Count
Qualified	45	40.54%
Assigned	19	17.12%
Work In Progress	17	15.32%
Draft	15	13.51%
Awaiting Qualification	15	13.51%
Total	111	100%

The dispatch map view without geolocation enabled shows individual tasks by state and displays related records in a separate window.

You can click elements within the reports to obtain more information without leaving the overview page.

Contractor dashboard

Use this dashboard to review the status of work order tasks, agents, agent feedback, and appointments of contractor companies.



Required ServiceNow AI Platform roles

The `wm_contractor_manager_int` role is needed to track the status of work orders and agents from the contractor companies.

Use cases

The following use case provides an example of how an internal manager would use this dashboard.

Use case scenarios for Contractor dashboard








User	Dashboard use
Internal manager	<p>Reviews the work order task progress and agent feedback results based on the selected contractor company and date range.</p> <p>Click any area of a chart to see the corresponding records.</p>

Data visualizations

Overview of data visualizations on the Contractor dashboard

Title	Type	Source table	Description
Non Compliant Appointments	Single Score 	[wm_task]	Number of appointments not started on time.

Overview of data visualizations on the Contractor dashboard (continued)

Title	Type	Source table	Description
Task SLA Breach Status	Semi Donut 	[Task_sla]	Data work order tasks that have breached the task SLA.
Closed Complete Tasks	Single Score 	[wm_task]	Number of work order tasks closed by agents.
Agents	Single Score 	[Sys_user]	Number of agents associated with the contractor company.
Task Rejections	Single Score 	[wm_task_rejection]	Number of work order tasks rejected by the contractor manager.
Average Agent Rating	Single Score 	[wm_agent_rating]	Average rating of all the agents in the company.
Work Distribution By Work Type	Pie 	[wm_task]	Percentage of work order tasks divided based on the type of work, such as install, break fix, and so on.
Work Distribution by state	Pie 	[wm_task]	Percentage of work order tasks divided based on their real-time status, such as Assigned, Work in Progress, and so on.

Filters

Filter options on the Contractor dashboard

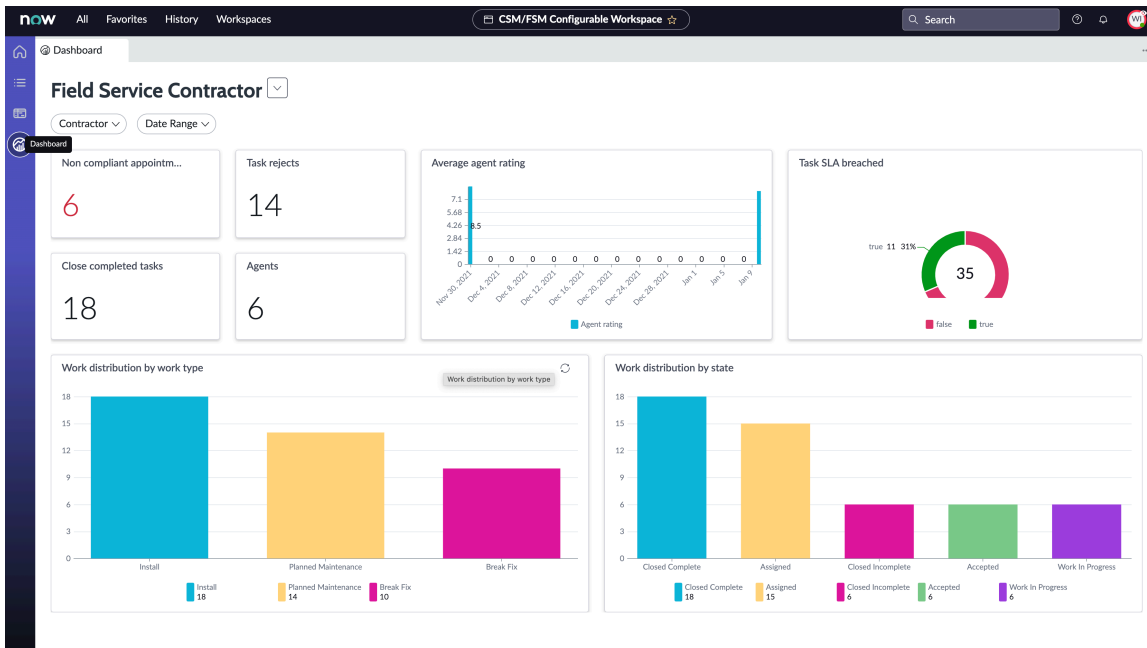
Name	Filter type	UI control type	Description
Contractor	Reference	Select Single Input	Filter the report results based on a selected

Filter options on the Contractor dashboard (continued)

Name	Filter type	UI control type	Description
			contractor company or all.
Date Range	Date	Select Single Input	Filter the report results based on the selected date range, such as last 30 days.

Contractor dashboard in the configurable workspace

Use this dashboard to review the status of work order tasks, agent rating, and work distribution by type and state.



Required ServiceNow AI Platform roles

- The `wm_contractor_manager_int` role is needed to track the status of work orders and agents from the contractor companies.
- The `wm_dispatcher` role is needed to view work orders.

Access the contractor dashboard in the configurable workspace

To open the dashboard, navigate to **Field Service > Workspaces > CSM/FSM Configurable Workspace**.

Use cases







For examples of how different people in your organization would use this dashboard, see these use cases.

Use case scenarios for Contractor dashboard



User	Dashboard use
Internal Manager	<p>Reviews the work order task progress and agent feedback results based on the selected contractor company and date range.</p> <p>Click any area of a chart to see the corresponding records.</p>

Data visualizations

Data visualizations on the contractor dashboard

Title	Type	Source table	Description
Non compliant appointments	Single Score 	[wm_task]	Number of appointments not started on time.
Task rejects	Single Score 	[wm_task_rejection]	Number of work order tasks rejected by the contractor manager.
Close completed tasks	Single Score 	[wm_task]	Number of work order tasks closed by agents.
Agents	Single Score 	[sys_user]	Number of agents associated with the contractor company.
Average agent rating	Single Score 	[wm_agent_rating]	Average rating of all the agents in the contractor company.
Task SLA breached	Semi Donut 	[task_SLA]	Data work order tasks that have breached the task SLA.

Data visualizations on the contractor dashboard (continued)

Title	Type	Source table	Description
Work distribution by work type	 Pie	[wm_task]	Percentage of work order tasks divided based on the type of work, such as install, break fix, and so on.
Work distribution by state	 Pie	[wm_task]	Percentage of work order tasks divided based on their real-time status, such as Assigned, Work in Progress, and so on.

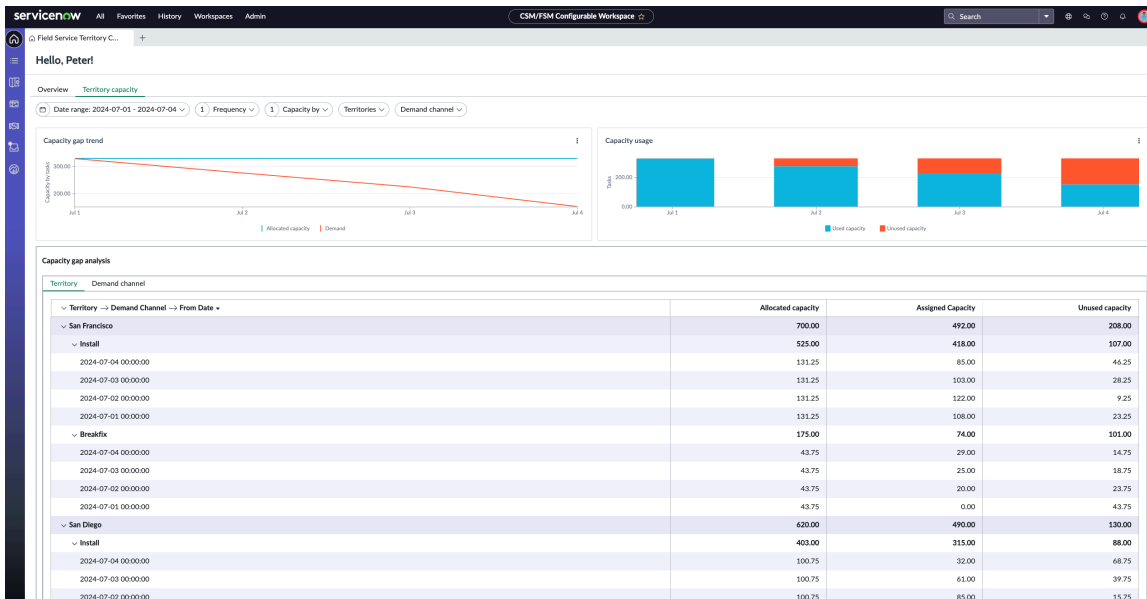
Filters

Filter options on the Contractor dashboard

Name	Type	Description
Contractor	Reference	Filter the report results based on a selected contractor company or all.
Date Range	Date	Filter the report results based on the selected date range, such as last 30 days.

Field Service Territory Capacity Analytics dashboard

Use the Field Service Territory Capacity Analytics dashboard to track capacity trends with interactive charts and graphs, perform gap analysis with a customizable pivot table, and apply filters for targeted data viewing and informed decision-making.



Required ServiceNow AI Platform roles

- The fsm_territory_manager, fsm_territory_planner roles are required to access the dashboard.
- The fsm_resource_manager role is required to view data related to their respective territories.

Access the Field Service Territory Capacity Analytics dashboard in the configurable workspace

To open the dashboard, navigate to **Field Service > Workspaces > CSM/FSM Configurable Workspace > Home > Territory capacity** tab.

Use cases

For examples of how different people in your organization would use this dashboard, see these use cases.

Use case scenarios for dashboard

User	Dashboard use
Territory Planner	<p>Manages and optimizes field service resources. This involves tracking capacity trends, analyzing capacity gaps through a customizable pivot table, and applying filters for targeted data analysis.</p> <p>The planner adjusts resource allocation based on insights to minimize downtime and improve service levels, handles special events by overriding standard capacity settings, and collaborates with team members to ensure smooth field service operations.</p>
Territory Manager	<p>Optimizes performance within specific geographic areas. Monitors capacity trends with interactive charts, conduct gap analysis using a customizable pivot table, and apply filters for targeted insights.</p> <p>The manager adjusts capacity settings for special events, ensures efficient resource allocation, and drills down into detailed data on capacity usage to manage and respond to mismatches effectively.</p>

Reports

Title	Type	Source table	Description
Capacity gap trend	Line chart	wm_demand_for_capacity wm_task	Uses a line chart to compare allocated capacity and actual work demand over

Title	Type	Source table	Description
			time. Allocated capacity is the assigned resources, while work demand is the actual task volume. This report identifies discrepancies to improve resource planning and optimization.
Capacity usage	Bar chart	wm_demand_for_capacity	Uses a bar chart to display used versus unused capacity. This provides insights into resource utilization, aiding in the optimization of planning and operations.
Capacity gap analysis	Report	wm_demand_for_capacity	<p>The Capacity Gap Analysis report identifies gaps between allocated and actual work demand.</p> <p>The pivot table breaks down data by territory and demand channel, showing allocated, assigned, and unused capacity.</p> <p>This helps address planning and resource allocation issues.</p>

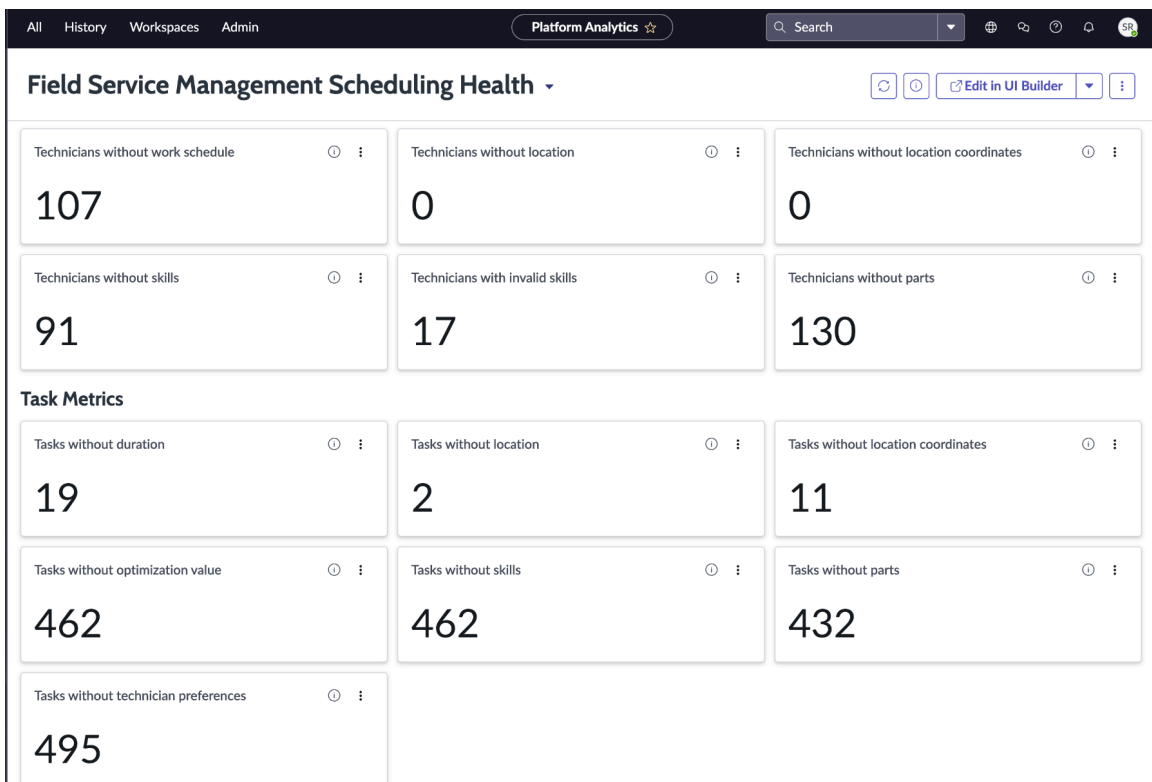
Filters

Name	Type	Description
Date range	Date	Filter the results based on the selected date range, such as This month or This week.
Frequency	Reference	Filter the results based on the frequency such as, Daily, Weekly, Monthly, or Yearly.

Name	Type	Description
Capacity by	Reference	Filter the results based on the frequency such as, hours or tasks.
Territories	Reference	Filter the results based on a selected territory and other filter selections such as Frequency, Capacity By etc.
Demand channel	Reference	Filter the results based on a selected demand channel and other filter selections such as Territory, Frequency, Capacity By etc.

Scheduling Health dashboard

Use this dashboard to view technician metrics, task metrics, and Schedule Optimization configuration details.



Required ServiceNow AI Platform roles

- The `wm_basic` role is needed to view the dashboard **Overview** tab.
- The `schedule_optimization_planner` or `schedule_optimization_user` is needed to view the **Schedule Optimization** tab.

Access the Scheduling Health dashboard

To open the dashboard, navigate to:

- **All > Field Service > Administration > Health Check**
- **All > Schedule Optimization > Administration > Health Check**

Use cases

For examples of how different people in your organization would use this dashboard, see these use cases.

User	Dashboard use
Dispatcher	<p>Identifies factors that prevent a work order task from being assigned.</p> <p>Click any area of the chart to see corresponding records.</p>
Admin	<p>Admins have the capabilities of a dispatcher and can update the information that is missing from the record.</p> <p>Click any area of the chart to see corresponding records.</p>

Overview Data Visualizations

Technician metrics

Title	Type	Source table	Description
Technicians without work schedule	Single Score	sys_user	The number of technicians who don't have a work schedule.
Technicians without location	Single Score	sys_user	The number of technicians whose user record doesn't have a location.
Technicians without location coordinates	Single Score	sys_user	The number of technicians whose user record doesn't have latitude and longitude.
Technicians without skills	Single Score	sys_user	The number of technicians with no skill assignments.
Technicians with invalid skills	Single Score	sys_user	The number of technicians with one or more empty skill assignments.

Technician metrics (continued)

Title	Type	Source table	Description
Technicians without parts	Single Score	sys_user	The number of technicians with no parts in their personal stockroom.

Task metrics

Title	Type	Source table	Description
Tasks without duration	Single Score	wm_task	The number of tasks that don't have a duration.
Tasks without location	Single Score	wm_task	The number of tasks that don't have a location.
Tasks without location coordinates	Single Score	wm_task	The number of tasks that don't have latitude and longitude.
Tasks without optimization value	Single Score	wm_task	The number of tasks that don't have an optimization value.
Tasks without skills	Single Score	task_m2m_skill	The number of tasks with no skill requirements.
Tasks without parts	Single Score	wm_task	The number of tasks with no part requirements.
Tasks without technician preferences	Single Score	wm_task	The number of tasks that don't have technician preferences.

servicenow All Favorites History Workspaces Platform Analytics Search

Field Service Management Scheduling Health

Overview Schedule Optimization

Select a configuration to view its health metrics. Values are calculated as if the optimization was run at the current time and may change.

Type: Intraday configuration
 Intraday test 2

Total number of technicians	Total number of tasks	Next optimization run time
7	12	Thu Jun 13 2024, 5:57:50 PM

Schedule Optimization Data Visualizations

Title	Type	Source table	Description
Total number of technicians	Single Score	sys_user	The number of technicians who will be included in the next optimization run.
Total number of tasks	Single Score	wm_task	The number of tasks that will be included in the next optimization run.
Next optimization run time	Date/Time		The date and time of the next scheduled optimization run.

Filters

The **Type** filter contains two choices, batch and intraday. Your selection outputs one of the following subsequent filters.

Name	Type	Description
Batch	Single select	Generate a report based on the selected batch configuration.
Intraday configuration	Single select	Generate a report based on the selected intraday configuration.

Using the Field Service Safety dashboard

Review the status of agents, tasks, and assets using the Field Service Management Covid19 map. Monitor the compliance reports of agents through the Field Service Safety dashboard.

Important:

Starting with the Xanadu release, the Field Service Safety dashboard is removed from the Emergency Exposure Management app. It will be hidden and no longer activated on new instances but will continue to be supported. For details, see the [Deprecation Process \[KB0867184\]](#) article in the Now Support Knowledge Base.

Users with the `wm_manager` role can use the Field Service Safety dashboard to monitor whether agents are compliant with the safety protocols of possible exposure to an infectious disease while performing tasks. The Covid19 map displays the impact of COVID-19 on the locations that are covered by the agents, tasks, and assets of an individual Field Service manager.

To see the FSM Covid19 map on your Field Service Safety dashboard, install the free COVID-19 Global Health Data Set application.

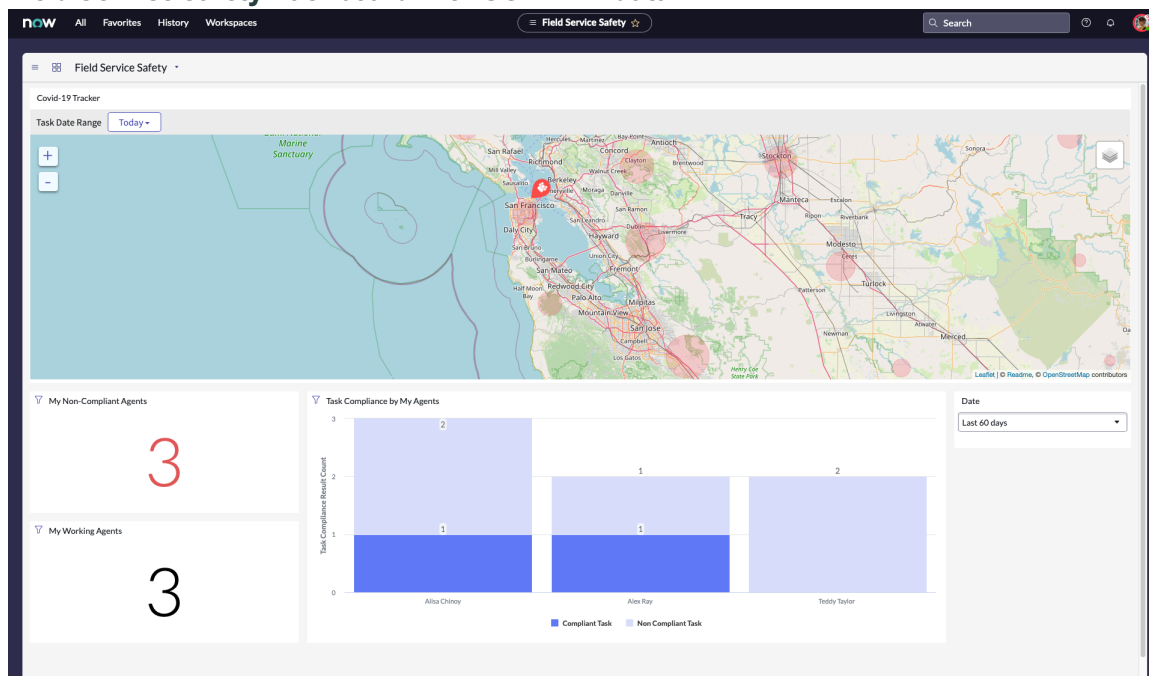
COVID-19 Global Health Data Set

You can use the COVID-19 Global Health Data Set application to see the Field Service Management Covid19 map on your Field Service Safety dashboard. The application appears as an application in the instance navigation menu. It displays global COVID-19 information on request in the Field Service Safety dashboard. The *COVID-19 Data Feed - pre-sync* and *COVID-19 Data Feed - sync central instance, Daily Data Collection* scheduled jobs run every night to refresh the data.

Using the Field Service Safety dashboard

Navigate to **Field Service > Safety Dashboard**.

Field Service Safety Dashboard with COVID-19 data



Locations with alerts are listed on the FSM Covid19 map. Use the map controls as follows:

- To zoom in to a location and its alerts, click the location icon (📍).
- To select a time period to review, use the Task Date Range at the top left.
- To filter the information displayed on the map, click the layers icon (🗒️) on the top right and select your filters.

Each icon displays the information in the following table.

Filters on the safety dashboard COVID-19 map

Icon	Description
Task	<p>Tasks for the locations that are covered by the logged-in field service manager.</p> <ul style="list-style-type: none"> • To display the task number and short description, click the task marker. • To review task details, click the task number.
Assets	<p>The installed or available assets at the locations that are covered by the logged-in field service manager.</p> <ul style="list-style-type: none"> • To display the name and company name of the asset, click the asset marker. • To review asset details, click the asset name.
Agent	<p>Managed by the logged-in field service manager.</p> <ul style="list-style-type: none"> • To display the agent's name and mobile number, click the agent marker. • To review agent details, click the agent name.

Reports

Managers can view the task compliance result of their agents based on the date, such as tasks performed by the agents in the last 30 days and so on. Click any area of a chart to see the corresponding records.

Safety dashboard report

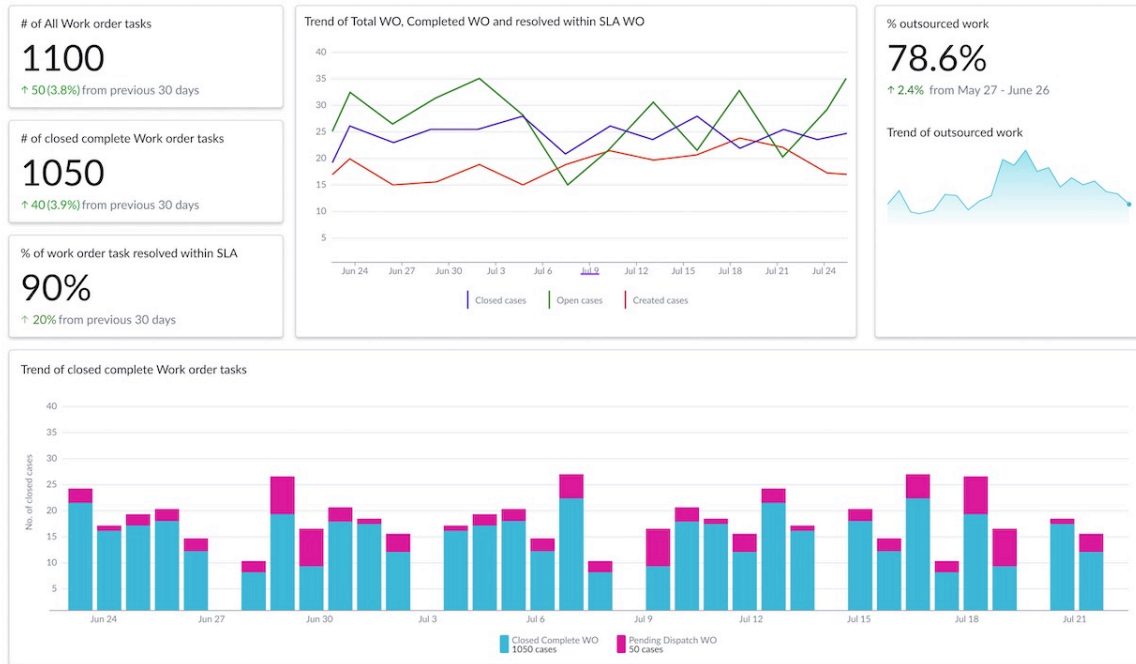
Chart	Description
My Non-Compliant Agents	The number of agents who completed their tasks without following the safety protocols within the selected date range. Click the metrics to view the list of non-compliant tasks.
My Working Agents	The number of agents working on at least one task and reporting to the logged-in field service manager. Click the metrics to view the list of their compliant and non-compliant tasks.
Task Compliance by my Agents	The breakdown of compliant and non-compliant tasks by each agent within the selected date range. Click a section to view the list of tasks.

Field Service Territory Performance Analytics dashboard

Use this dashboard to view and analyze performance analytics such as open work order tasks, agent utilization on work order tasks, and average travel time across territories.

Territory performance metric from Jun 27 to Jul 26

Territory California Select time frame Last 30 days



Required ServiceNow AI Platform roles

The `wm_admin` role is needed to manage work orders.

Access the Field Service Territory Performance Analytics dashboard

To open the dashboard, navigate to **Workspaces > Platform Analytics Workspace > Dashboards > Field Service Territory Performance Analytics**.

Use cases

For examples of how different people in your organization would use this dashboard, see the following use cases.

Examples of how the field service territory performance analytics dashboard is used







User	Dashboard use
FSM Territory Planner	Can create new territories and see how the territories are being used for better allocation of field service resources and take actions based on the data shown.
FSM Territory Manager	Can manage territories, create new child territories and see how the territories are being used for better allocation of field service

Examples of how the field service territory performance analytics dashboard is used (continued)

User	Dashboard use
	resources and take actions based on the data shown.

Data visualizations

Territory performance analytics visualization options

Title	Type	Source table	Description
Open Work Order Tasks	Single Score 	[wm_task]	Number of open work order tasks.
Mean Time to resolve work order tasks	Single Score 	[wm_task]	Average Closing time of work.
% Productive time for Work Order Tasks	Single Score 	[wm_task]	Number of hours agents spent working on the tasks in the last 60 days.
% Agent utilization for work order tasks	Single Score 	[wm_task]	Number of agents assigned to work on the tasks in the last 60 days.
Average Travel Time for Work order tasks order tasks shown territory wise	Single Score 	[wm_task]	Average Travel time for work order tasks shown territory wise.
Total WOT per Territory	Single Score 	[wm_task]	Number of Work Order Tasks per territory.

Filters

Territory performance analytics report filter options

Name	Filter type	UI control type	Description
Territory	Reference	Multi select Input	Filter the report results based on a selected territory.
Date	Date	Single select date	Filter the report based on the selected date.

View work order trends topics

Analyze the backlog of support work orders and identify clusters of work orders that point to similar underlying issues by using Predictive Intelligence for Field Service Management.

Before you begin

Role required: wm_admin or wm_manager.

Procedure

1. Navigate to **All > Field Service > Work Order > Work Order Trends**.
2. Click a Cluster Id from the Cluster Summary list to view the list of related work orders.
 - Cluster concepts list the top ten most recurring words that appeared in the short description of the work orders.
 - Cluster size indicates the number of work orders in the cluster.
 - Cluster quality gives a percentage value of how similar the work orders are.

Field Service Management reference

Reference topics provide additional information about Field Service Management components that are installed automatically when you activate Field Service Management plugin.

Components installed with Field Service Management

Several types of components are installed with Field Service Management.

Demo data for the Field Service Management application is a separate plugin. The Field Service Management Demo Data plugin (com.snc.work_management.demo) provides sample qualifiers, dispatchers, agents, work orders, work order tasks, stockrooms, and asset information.

Tables installed with Field Service Management

Tables are provided with the Field Service Management application.

Tables installed with Field Service Management

Table	Description
Work Order [wm_order]	Stores work order records.

Tables installed with Field Service Management (continued)

Table	Description
Work Order Flow [sf_work_order]	Stores the work order state flow records.
Work Order Model [cmdb_workorder_product_model]	Stores the Product Catalog work order model records. This table was modified by the Field Service Management plugin. This table was renamed and part of Service Order Management.
Work Order Task [wm_task]	Unit of work performed by one person, in one session (one person and one time).
Work Task Flow [sf_work_task]	Stores the work task state flow records.
Work Task Model [cmdb_servicetask_product_model]	Stores the Product Catalog work task model records. This table was modified by the Field Service Management plugin. This table was renamed and part of Service Order Management.
WM Map Filters Config [wm_map_filters_config]	Stores filter configurations for the agent map on the mobile app.
Questionnaire [wm_questionnaire]	Stores questionnaires created for work orders and work order tasks.
Work Type [wm_work_type]	Stores the type of work performed by an agent to complete a work order task.
Work Order Task Potential Assignment Groups [wm_work_order_task_potential_assignment_groups]	Calculates and stores the potential assignment group if there are multiple assignment groups that can be serviced for a work order task. Note: This is applicable only when: <ul style="list-style-type: none"> • The <code>sn_fsm.update_potential_assignment_group</code> system property is set to true. • More than one assignment group is found for the location. • Territory model is inactive.
Scheduling history [wm_task_scheduling_history]	Stores the history of the scheduling method of how each work order task has been assigned along with date and time.
Assets [alm.asset]	Stores the inventory along with the cost and stockroom details.

Tables installed with Field Service Management (continued)

Table	Description
Agent schedule attribute plan [wm_agent_schedule_attribute_plan]	Stores the start of the day and end of the day location of a given duration.

Properties installed with Field Service Management

System properties provided with the Field Service Management application.

Properties installed with Field Service Management

Property	Description
glide.ui.wm_order_activity.fields	Determines which fields are tracked in the order activity. The system automatically synchronizes the selections made by customizing activity fields. <ul style="list-style-type: none"> • Type: String • Default value: opened_by, work_notes • Location: System Properties [sys_properties]
glide.ui.wm_task_activity.fields	Determines which fields are tracked in the task activity. The system automatically synchronizes the selections made by customizing task fields. <ul style="list-style-type: none"> • Type: String • Default value: work_notes, assigned_to • Location: System Properties [sys_properties]
work.management.agent.geo.history.update.duration	Set the duration (in minutes) of the latest geo history to consider for calculating the agent's geo history at current time. If the duration of the last geo history is greater than the duration set for this property, then the agent's home location instead of the geolocation is used for the agent's current location. <ul style="list-style-type: none"> • Type: Integer • Default value: 240 • Location: System Properties list
work.management.allow.doublebooking.dynamicscheduling	When set to true, dispatchers can double-book agents when dynamic scheduling is enabled. <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: System Properties list [sys_properties]

Properties installed with Field Service Management (continued)

Property	Description
work.management.allow.auto.metric_cleanup	<p>The frequency in number of days that the table will be purged of work order task information. The amount of data in the table.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 365 • Location: System Properties list [sys_
work.management.default.end.time	<p>Default end time for all work agents who are scheduled in a 24-hour clock.</p> <ul style="list-style-type: none"> • Type: String • Default value: 17:00 • Location: Field Service > Administration
sn_fsm.set_schedule_lock_by_state	<p>Determines the state to lock work order reassignment. For example, you can set the state to lock work orders automatically get locked when the state is set to lock. This property excludes in automated scheduling mechanism, intelligent scheduling, intelligent task recommendation, and intelligent task recommendation.</p> <ul style="list-style-type: none"> • Type: String • Default value: None • Location: Field Service > Administration
sn_fsm.update_potential_assignment_groups	<p>Calculates and automatically populates the <code>wm_work_order_task_potential_assignment</code> table with potential assignment groups.</p> <ul style="list-style-type: none"> • Type: Boolean • Default value: No • Location: Field Service > Administration <p>Note: The <code>wm_work_order_task_potential_assignment</code> table is populated only when:</p> <ul style="list-style-type: none"> • The <code>sn_fsm.update_potential_assignment_groups</code> system property is set to true. • More than one assignment group is defined. • Territory model is inactive.
work.management.default.start.time	<p>Default start time for all work agents who are scheduled. The value sets the start time for a day other than the start time. If no scheduled task exists or is continued, the start time property uses a 24-hour clock.</p>

Properties installed with Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: String • Default value: 08:00 • Location: Field Service > Administration
work.management.allow.auto.timecard	<p>Automatically create a time card for a work order task. Every time the task is resumed, the time is recorded in the time card. The Actual Work is the cumulative amount of time worked on the task.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Administration
work.management.allow.travel.task.timecard	<p>Enables recording the amount of time a technician spends on a work order task. The time card is generated when the task is completed.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: System Properties list [sys_...]
work.management.limit.location	<p>By default, the list of available dispatch locations is limited to the proximity to the work order task location. If set to false, the system displays all dispatch groups regardless of their proximity to the task location.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true • Location: Field Service > Administration > Properties for Field Service
work.management.max.agents.processed	<p>Sets the maximum number of agents that can be assigned to a task at a time. The system has an absolute limit of 300 agents at that level. If you specify more than 300 agents, the system will dispatch a task for a dispatch group that has the maximum value configured.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100 • Location: Field Service > Administration
work.management.work.spacing	<p>Amount of time (in minutes) to add between the end of one travel start of the next. An example of a</p>

Properties installed with Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: Integer • Default value: 0 • Location: Field Service > Administration
com.snc.wm.wo.task_window_days	<p>Default days for a window of a task.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 14 • Location: Field Service > Administration
work.management.use.mandatory.skills	<p>Enables the mandatory skills feature and the [task_m2m_skill] table is being used for tasks.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: System Properties list
work.management.rejected.technician.duration	<p>The number of hours after which a work order is scheduled to the agent who rejected the work order.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 24 • Location: System Properties list
skills_management.migration	<p>Lists the task tables to migrate to the Task Skills table when an admin runs the <i>Migrate Skills</i> script.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: wm_task,customerservice • Location: System Property [sys_properties]
com.snc.skills_management.task_skill_migrated_tables	<p>Contains a list of tables for which the Skills data has been migrated to the Task Skills [task_m2m_skill] table. If a table is listed in this property, the data has been migrated again.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: none • Location: System Property [sys_properties]
work.management.assignment.ignoreTravelTimeCalculation	<p>When set to true, ignores the travel calculation for agents.</p>

Properties installed with Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: System Properties list
sn_fsm_service_loc.max_new_location_per_day	<p>Sets the maximum number of new location users.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 10 • Location: Field Service > Administration
sn_fsm_crew.work.management.allow_undersized_crew_task_assignment	<p>Enables dispatchers to assign task to a crew size doesn't meet the minimum requirement.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: System Properties list
work.management.optimization.conflict_handling	<p>Manages the assignment of tasks schedule hours when optimizing the task route following route optimization behaviour due to the overflow tasks:</p> <ul style="list-style-type: none"> • stop_action: Terminate the optimize route status to the agent. • unassign_task: Unassign the tasks to agent working hours. • Extend_tasks: Adjust the unassigned agent schedule when optimizing the route. <ul style="list-style-type: none"> • Type: choice list • Default value: stop_action • Location: System Properties list [sys_...]
sn_fsm_crew.default.duration.in.days.of.crew.member	<p>Sets the default number of days that an agent can work.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 1 • Location: System Properties list [sys_...]
sn_task_grouping.log.verbosity	<p>Logs the details of Dynamic Bundling. Reports how many tasks were bundled, bundle policies, rules, and qualifiers used to create bundles.</p>

Properties installed with Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: choice_list • Default value: OFF • Location: System Properties list [sys_
work.management.default.scheduled.start	<p>Default scheduled start date added to v false, then the scheduled start won't po scheduled state. If the value is set to tru populate when tasks enter the pending</p> <ul style="list-style-type: none"> • Type: string • Default value: false • Location: System Properties list [sys_
sn_fsm.wm_weekly_resource_span	<p>Turns table denormalization for Field Se</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true • Location: System Properties list [sys_ <p>⚠ Warning: Only system administrators should</p>
sn_fsm.wm_weekly_resource_span.number_of_weeks_in_past	<p>The number of weeks in past that the de you navigate past the default weeks in t isn't retrieved from the denormalized ta</p> <p>You can store a total of 20 weeks worth include one week for the current week, future weeks together can't exceed 19 v</p> <ul style="list-style-type: none"> • Type: string • Default value: 2 • Location: System Properties list [sys_ <p>⚠ Warning: Only system administrators should</p>
sn_fsm.wm_weekly_resource_span.number_of_weeks_in future	<p>The number of weeks in the future that data. If you navigate past the default we available but isn't retrieved from the de</p> <p>You can store a total of 20 weeks worth include one week for the current week, future weeks together can't exceed 19 v</p>

Properties installed with Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: string • Default value: 8 • Location: System Properties list [sys_
Enable/Disable Onsite Check-in for Agents	<p>Enables a substate on tasks to reflect w locations.</p> <ul style="list-style-type: none"> • Type: Choice • Default value: Disabled • Location: All > Field Service > Admin <p>If enabled, you can set a value for any w</p>
sn_schedule_optim.schedule_state_type	<p>Enables admin to adjust the drip feed re number of tasks or the duration of the ta</p> <ul style="list-style-type: none"> • Type: Choice • Default value: duration
sn_schedule_optim.scheduled_state_count_of_task	<p>Enables admin to control how many tas any given time.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 1

Properties for calculating estimated travel time and distance

Properties for calculating estimated travel time and distance with Field Service Management

Property	Description
work.management.autodispatch.geolocation	<p>Requires geolocation to be used to calculate the estimated travel time for dynamic scheduling and auto assignment of tasks.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true • Location: Field Service > Administration > Properties > Dispatch Properties for Field Service Management

Properties for calculating estimated travel time and distance with Field Service Management (continued)

Property	Description
	<p>Note: To use the Google Maps API with dynamic scheduling, you must also enable the Use Google for travel time and traffic data check box on the Dynamic Scheduling Configuration form.</p>
work.management.travel.calculation.dynamic_scheduling	<p>Uses the Google Maps API or straight-line estimates to calculate estimated agent travel time and distance to task locations when agents are assigned tasks using dynamic scheduling.</p> <ul style="list-style-type: none"> Type: choice list Default value: Use straight line estimate Location: Field Service > Administration > Properties
work.management.travel.calculation.auto_assignment	<p>Uses the Google Maps API or straight-line estimates to calculate estimated agent travel time and distance to task locations when agents are assigned tasks using auto assignment.</p> <ul style="list-style-type: none"> Type: choice list Default value: Use Google Maps API Location: Field Service > Administration > Properties
work.management.travel.calculation.manual_assignment	<p>Uses the Google Maps API, Beans.AI, or straight-line estimates to calculate estimated agent travel time and distance to task locations when tasks are manually assigned to agents.</p> <p>Note: Map providers operate on a bring your own license (BYOL) licensing model.</p> <ul style="list-style-type: none"> Type: choice list Default value: Use straight line estimate Location: Field Service > Administration > Properties
work.management.travel.calculation.route_optimization	<p>Uses the Google Maps API, Beans.AI, or straight-line estimates to calculate estimated</p>

Properties for calculating estimated travel time and distance with Field Service Management (continued)

Property	Description
	<p>agent travel time and distance to task locations when agent route is optimized.</p> <p>Note: Map providers operate on a bring your own license (BYOL) licensing model.</p> <ul style="list-style-type: none"> Type: choice list Default value: Use Google Maps API Location: Field Service > Administration > Properties
<p>work.management.travel.calculation.bundle_route_optimization</p>	<p>Enables Route Optimization to optimize the subtasks within work order task bundles.</p> <ul style="list-style-type: none"> Type: true/false Default value: false Location: Field Service > Administration > Properties
<p>work.management.travel.calculation.expected_arrival</p>	<p>Uses the Google Maps API or straight-line estimates to calculate estimated agent travel time and distance between the task location and the agent's location when agent starts to travel. If an agent leaves before or after the Scheduled travel start time, then the Scheduled travel start, Scheduled start, Estimated end, and Estimated travel duration values for the task are updated.</p> <ul style="list-style-type: none"> Type: choice list Default value: Use Google Maps API Location: Field Service > Administration > Properties <p>Note: Select Use Google API real time traffic as the default value to calculate the agent's estimated time of arrival using the real-time traffic data.</p>
<p>work.management.travel.calculation.schedule_assignment</p>	<p>Uses the Google Maps API, Beans.AI, or straight-line estimates to calculate estimated agent travel time and distance to task locations for assignment assistance calculation.</p>

Properties for calculating estimated travel time and distance with Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: choice list • Default value: Use straight line estimate • Location: Field Service > Administration > Properties

Part sourcing properties

Part sourcing properties for Field Service Management

Property	Description
Part Search Criteria	<p>Sets the criteria to search parts. The stockrooms that contains the parts with the requested quantity appear per the selected search criteria.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: No restrictions <ul style="list-style-type: none"> ○ No Restrictions: Search all warehouse stockrooms and peers' personal stockrooms. ○ Only Assignment Group: Search all stockrooms of the peer agents who are part of the assignment groups of the logged-in field service agent. ○ Only Preferred Stockrooms: Search all preferred stockrooms of all the assignment groups irrespective of the radius mentioned in the logged-in agent's profile. • Location: Field Service > Administration > Properties
Use part request approvals	<p>Enables sending and receiving mobile notifications as field service agents request parts from peer agents.</p> <ul style="list-style-type: none"> • Type: Boolean • Default value: Yes • Location: Field Service > Administration > Properties
Create part requests for part requirement sourcing	<p>Creates a part request when a part is added to the part requirement.</p>

Part sourcing properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: Boolean • Default value: Yes • Location: Field Service > Administration > Properties

Geolocation properties

Geolocation properties for Field Service Management

Property	Description
work.management.map.merge.task.agent.markers	<p>Merges task and agent markers on geolocation maps with a new purple marker. When this property is true, agent and task markers that are close together are merged into a purple cluster that displays the count of both marker types. The pop-up information window for the purple marker displays the items for all agents and tasks. If this property is false, agents and tasks will only be gathered into their own clusters and not into the single, purple cluster.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Administration > Properties
work.management.evening.rush.hours	<p>Evening rush hour span, formatted as 14:30-16:00. This property uses a 24 hour clock. All times are expressed as a range, separated by a dash with no spaces. Times not using this format are ignored. This property must be used with the <i>work.management.morning.rush.hours</i> and <i>work.management.rush.travel.buffer</i> properties.</p> <ul style="list-style-type: none"> • Type: String • Default: 0 • Location: Field Service > Administration > Properties
work.management.morning.rush.hours	<p>Morning rush hour span, formatted as 06:30-08:00. This property uses a 24 hour clock. All times are expressed as a range, separated by a dash with no spaces. Times not using this format are</p>

Geolocation properties for Field Service Management (continued)

Property	Description
	<p>ignored. This property must be used with the <i>work.management.evening.rush.hours</i> and <i>work.management.rush.travel.buffer</i> properties.</p> <ul style="list-style-type: none"> • Type: String • Default: 0 • Location: Field Service > Administration > Properties
<p>work.management.rush.travel.buffer</p>	<p>Percentage to add to all rush hour travel times. The system uses this percentage to calculate schedules when optimizing task routes for agents. Use this property when both morning and evening rush hour times are defined. An example of a valid time buffer percentage is 15.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 0 • Location: Field Service > Administration > Properties
<p>work.management.travel.buffer</p>	<p>Percentage to add to all travel times. An example of a valid percentage value is 15.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 0 • Location: Field Service > Administration > Properties
<p>work.management.allow.toll.roads</p>	<p>Allows the system to use toll roads when auto-routing or optimizing task routes for agents.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true • Location: Field Service > Administration > Properties

Dynamic Scheduling properties

Dynamic scheduling properties for Field Service Management

Property	Description
work.management.allow.doublebooking.dynamicscheduling	<p>Enables dispatchers to double-book agents manually even when dynamic scheduling is enabled.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Dynamic Scheduling Administration > Properties
com.snc.dynamic.scheduling.ignoreAgentTravelTimeDuringScheduling	<p>When this property is set to true, the agent's assigned tasks using dynamic scheduling no longer have an estimated travel time calculated.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Dynamic Scheduling Administration > Properties
work.management.travel.calculation.dynamic_scheduling	<p>Uses the Google Maps API or straight-line estimates to calculate estimated agent travel time and distance to task locations when agents are assigned tasks using dynamic scheduling.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: Use straight line estimate • Location: Field Service > Dynamic Scheduling Administration > Properties
com.snc.dynamic.scheduling.optimize_travel_time_rating	<p>Used to provide a more precise optimization rating for each work block for agents. Property includes work.management.morning.rush.hours and work.management.rush.travel.buffer.</p>

Dynamic scheduling properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: Choice list • Default: include_all_travel • Location: Field Service > Dynamic Scheduling Administration > Properties
work.management.distance.calculation.dynamic_scheduling	<p>Uses Google Maps API or straight line estimates to calculate estimated distance to task locations when agents are assigned tasks using dynamic scheduling.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: Use straight line estimate • Location: Field Service > Dynamic Scheduling Administration > Properties
com.snc.dynamic.scheduling.showlogs	<p>Enable this property to display recommended eligible agents to the dispatchers while scheduling the tasks using dynamic scheduling.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Dynamic Scheduling Administration > Properties
com.snc.dynamic.scheduling.bundle_before_scheduling	<p>Ensures dynamic bundling runs before dynamic scheduling. Tasks in the Pending Dispatch state are bundled before running dynamic scheduling.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Dynamic Scheduling Administration > Properties
sn_fsm_multiday.minDurationForFirstWorkSchedule	<p>Set minimum work duration to be booked for the first work schedule of the task (in minutes).</p>

Dynamic scheduling properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: integer • Default value: 60 • Location: Field Service > Dynamic Scheduling Administration > Properties
work.management.enable.optimizing.travel	<p>Enables dynamic scheduling to reassign work order tasks to the nearest agent regardless of availability.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false • Location: Field Service > Dynamic Scheduling Administration > Properties
work.management.travel.time.threshold.minutes	<p>Sets the travel time (in minutes) that assigns a work order task to the nearest agent if they are within the travel distance.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 0 • Location: Field Service > Dynamic Scheduling Administration > Properties

Dispatcher Workspace properties

Dispatcher Workspace system properties for Field Service Management

Property	Description
sn_fsm_disp_wrkspc.dispatcher_workspace.agent_metrics_setting	<p>Enable agent metrics settings.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.autorefresh	<p>Enable auto-refresh.</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.calendar_display_days	<p>Default number of days dispatcher can view on calendar.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: 7 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.calendar_resources_page_size	<p>Minimum number of resources to load on dispatcher workspace calendar. The value must be between 1 and 30.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 15 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.cluster_label	<p>Set the label on marker clusters (marker for number of markers, item for total number of items).</p> <ul style="list-style-type: none"> • Type: choice list • Default value: (blank) • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.cluster_zoom_level	<p>Set maximum auto zoom level for marker clustering. Valid values are 1 to 20.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 15 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.date_time_field	<p>Select the date/time property to use for calendar navigation to task assignment window.</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: choice list • Default value: window_start • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.enable_straight_line_location_history_routes	<p>Enable simple straight line for drawing agent location history routes.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.enable_straight_line_route	<p>Enable simple straight line for drawing routes.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.event_hover_popover	<p>Enable on event hover popover on the dispatcher workspace.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.firstDayOfWeek	<p>Default first day of the week.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: 1 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.group_metrics_setting	<p>Enable group metrics setting</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.hideOffShiftAgents	<p>Enable hiding off shift agents</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: • Default value: • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.hideOffShiftAgents	<p>Enable hiding off shift agents</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.hide_map	<p>Hide Map.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.scheduled_travel_start_as_scheduled_start	<p>Schedule based on travel start time</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.showIconOnCalendarEvent	<p>Enable icon display on calendar event</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.taskDateFieldToCalendarSync	<p>Enable navigation to task assignment window.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.taskworkspace_page_size	<p>Default page size of task panel on dispatcher workspace</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: choice list • Default value: 20 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.use_task_assignment_modal	<p>Enable task assignment modal.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.display_map_on_assignment_confirmation	<p>Displays the map on task assignment confirmation in Dispatcher Workspace</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.enable_optimize_route	<p>Enable dispatcher workspace optimize route</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.initial_zoom_level	<p>Initial zoom level.</p> <ul style="list-style-type: none"> • Type: string • Default value: 5 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.map_style	<p>Apply a preferred style to light mode map.</p> <ul style="list-style-type: none"> • Type: string • Default value: (blank) • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.map_style_dark	<p>Apply a preferred style to dark mode map.</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: string • Default value: (blank) • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.map_type	<p>Select the map type to view locations</p> <ul style="list-style-type: none"> • Type: choice list • Default value: roadmap • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.maximum_auto_zoom_level	<p>Set maximum auto zoom level. Valid values are 1 to 20.</p> <ul style="list-style-type: none"> • Type: string • Default value: 12 • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.route_enabled	<p>Enable display of agent routes on the map.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.route_type	<p>Select map route type.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: street_level • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.sn_fsm.dispatch_ws_map.street_view_enabled	<p>Use street view on the map or use panoramas directly within the map</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.use_overlapping_territory_optimization	<p>Use overlapping territory modal for optimization</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
<p>sn_fsm.show_paginated_taskPanel_markers</p>	<p>This toggle is to only show the paginated task panel task markers. Instead of displaying all the task panel task markers on the map.</p> <div style="background-color: #fff9c4; padding: 5px;"> <p>⚠ Warning: Setting this value to false will load all task markers at once which may cause performance issues.</p> </div> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
<p>sn_fsm_disp_wrkspc.dispatcher_workspace.task_panel sla timer</p>	<p>Enable the SLA timer shown within the Work order task cards inside the Task Panel of Dispatcher Workspace.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
<p>sn_fsm_disp_wrkspc.calendarCollapsedBehavior</p>	<p>Show Collapsed territories or assignment group view.</p> <p>This property is only available for new customers that installed Field Service Management with Xanadu.</p> <div style="background-color: #fff9c4; padding: 5px;"> <p>⚠ Warning: Setting this value to false will load all the territories or assignment groups which may cause performance issues.</p> </div> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
sn_fsm_disp_wrkspc.dispatcher_workspace.task_cards_live_type	<p>Enable the Live type work order task cards to update in real-time (Live) or update once on the initial Dispatcher Workspace load (NonLive).</p> <ul style="list-style-type: none"> • Type: choice list • Default value: NonLive • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.dispatcher_workspace.show_advanced_resource_filters	<p>Property that controls if an advanced resource filter in Dispatcher Workspace. When enabled dispatchers can use the advanced resource filter to create and save their own advanced filters. Administrators can setup advanced filters for all dispatchers to use.</p> <div data-bbox="805 856 1391 1087" style="background-color: #e1f5fe; padding: 10px; border: 1px solid #cfe2f3;"> <p>i Important:</p> <p>The advanced resource filter is only available for filtering agents and crews. If you currently use contractors or equipment, continue to use the default filter shown in the contextual side panel.</p> </div> <ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table
sn_fsm_disp_wrkspc.enableEmptyState	<p>Property that controls if an empty state loads when Dispatcher Workspace opens. If true Dispatcher Workspace opens without Assignment Groups or Territories loaded until the dispatcher saves defaults.</p> <ul style="list-style-type: none"> • Type: true/ false • Default value: true • Location: System Properties list [sys_properties] table
work.management.task_state_color.use_hex	<p>Enable administrators to use hex colors to update the colors on work order tasks in Dispatcher Workspace. The default value, False, doesn't allow for updating task state colors.</p>

Dispatcher Workspace system properties for Field Service Management (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: true/ false • Default value: false • Location: System Properties list [sys_properties] table

Database View

The Field Service Mobile plugin (com.sn_fsm_mobile) adds the Mobile live location database view. The Field Service Mobile plugin is activated when you activate the Field Service Management (com.snc.work_management) plugin.

Database view installed with Field Service Management

Database view	Description
Mobile live location [sn_fsm_mobile_live_location_view]	Mobile live location of Field Service agents.

Roles installed with Field Service Management

Roles are added with Field Service Management.

Roles in Field Service Management

Role title [name]	Description	Contains Roles
Field Service Management Administrator [wm_admin]	<p>Manages data related to field service management. Field service management administrators also can:</p> <ul style="list-style-type: none"> • Control and override all information in the Field Service Management application. • Delete work orders and tasks. • Create tasks using the Clone Task feature. 	<ul style="list-style-type: none"> • wm_approver_user • fsm_skill_admin • dynamic_scheduling_admin • wm_agent • skill_model_admin • skill_admin • territory_admin • sn_apptmnt_booking.appointment_booking_admin • plan_maint_admin • wm_dispatcher • questionnaire_admin • catalog_admin • wm_qualifier • knowledge_manager • template_admin

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
	<ul style="list-style-type: none"> • Create, edit, and delete work order models and work task models. • Create, edit, and delete incidentals. • View expense lines. • View certain fields in non-subscription-based contracts. • Create questionnaires. • Book an appointment. 	
<p>Field Service Management Agent [wm_agent]</p>	<p>Manages actual task time and performs work on site. Agents also can:</p> <ul style="list-style-type: none"> • Accept or reject tasks assigned to them. • Add parts requirements. • Source parts. • Create tasks using the Clone Task feature. • Add work notes to work orders and work order tasks. • Submit questionnaires. • Create, edit, and delete incidentals. • View expense lines. 	<ul style="list-style-type: none"> • wm_basic • skill_user • inventory_user • territory_user • document_management_user • agent_schedule_user • questionnaire_user • sn_apptmnt_booking.appointment_booking_mana • timecard_user • fsm_skill_user

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
	<ul style="list-style-type: none"> • View certain fields in non-subscription-based contracts. • Book an appointment. <p>Agents can't update schedule or task window times or toggle the window control.</p>	
<p>Field Service Management location agent</p> <p>[wm_location_agent]</p>	<ul style="list-style-type: none"> • Accept or reject tasks assigned to them. • Create tasks using the clone task feature. • Add work notes to work orders and work order tasks. <p>i Note: Work Management and Service Organization plugins are to be installed.</p>	<p>wm_location_security</p>
<p>Field Service Management location manager</p> <p>[wm_location_assignment_manager]</p>	<ul style="list-style-type: none"> • Create, read, and write work orders. • Create, read, and write work order tasks. • Assign work order tasks to fulfillers within their own service organizations. 	<ul style="list-style-type: none"> • wm_location_security • fsm_skill_user

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
	<p>i Note: Work Management and Service Organization plugins are to be installed.</p>	
<p>Field Service Management Approver User [wm_approver_user]</p>	<p>Responsible for approving work orders before they're qualified or assigned.</p>	<ul style="list-style-type: none"> • approver_user • cmdb_read
<p>Field Service Management Basic [wm_basic]</p>	<p>Create work orders and follow up on work orders they had created. Common data access shared by all field service roles.</p>	<ul style="list-style-type: none"> • task_activity_writer • skill_user • inventory_user • territory_user • wm_read • service_fullfiller • document_management_user • fsm_skill_user
<p>Field Service Management Dispatcher [wm_dispatcher]</p>	<p>Schedules tasks, adds parts, and assigns tasks to work agents. Dispatchers also can:</p> <ul style="list-style-type: none"> • Create tasks. • Add part requirements. • Source parts. • Edit all work order task fields and manage tasks from Draft to Assigned status. • Edit the Assigned to field until work starts. 	<ul style="list-style-type: none"> • wm_basic • inventory_user • territory_user • dynamic_scheduling_user • document_management_user • sn_customerservice.customer_data_viewer • skill_model_user • sn_apptmnt_booking.appointment_booking_mana • timecard_user

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
	<ul style="list-style-type: none"> • Create tasks using the Clone Task feature. • Set actual travel time and work start and end times if needed. • Add work notes to any field service record. • Create, edit, and delete incidentals. • View expense lines. • View certain fields in non-subscription-based contracts. 	
<p>Field Service Management Initiator [wm_initiator]</p>	<p>Creates work orders and assigns qualification group. Initiators also can:</p> <ul style="list-style-type: none"> • Edit work orders that they create that are in the Draft state. • Add work notes to any field service record. • View work order tasks and part requirements. 	<p>wm_basic</p>
<p>Field Service Management Initiator Qualifier [wm_initiator_qualifier]</p>	<p>Initiator-qualifiers can:</p> <ul style="list-style-type: none"> • Create work orders. • Create tasks. • Add part requirements. 	<ul style="list-style-type: none"> • wm_initiator • wm_qualifier

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
	<ul style="list-style-type: none"> • Source parts. • Assign skills to agents. • View incidentals. 	
<p>Field Service Management Initiator Qualifier Dispatcher</p> <p>[wm_initiator_qualifier_dispatcher]</p>	<p>Initiator-qualifier-dispatchers can:</p> <ul style="list-style-type: none"> • Create work orders. • Create tasks. • Add parts requirements. • Source parts. • Assign skills to agents. • Assign work to agents. • Manage agent tasks. • View incidentals. 	<ul style="list-style-type: none"> • wm_initiator • wm_dispatcher • wm_qualifier
<p>Field Service Management Manager</p> <p>[wm_manager]</p>	<p>Field Service Managers can:</p> <ul style="list-style-type: none"> • Manage agent skills • Manage time cards • View and maintain work schedules • View and maintain personal events 	<ul style="list-style-type: none"> • fsm_skill_admin • wm_agent • timecard_manager • agent_schedule_manager
<p>Field Service Management Qualifier</p> <p>[wm_qualifier]</p>	<p>Qualifies work orders and creates work order tasks. Qualifiers also can:</p>	<ul style="list-style-type: none"> • wm_basic • inventory_user • territory_user • document_management_user • skill_model_user

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
	<ul style="list-style-type: none"> • Edit work orders in the Qualified state. • Edit work orders in the Awaiting Qualification state. • Edit tasks that are in the Draft state to provide technical details, such as information about CIs involved or parts needed. • Create tasks using the Clone Task feature. • Change the qualification group. • Set the dispatch group. • Add part requirements. • Source parts • Add work notes to any field service record. • View incidentals. 	
Field Service Management Read [wm_read]	Capable of reading work orders and work order tasks.	<ul style="list-style-type: none"> • sn_apptmnt_booking.appointment_booking_user • cmdb_read
Field Service Desk Agent [sn_fsm_servicedesk_agent]	Allows a user to create a work order, apply a template, and progress the work order.	<ul style="list-style-type: none"> • wm_read • sn_apptmnt_booking.appointment_booking_user
Field Service Management Task Initiator	Create, delete, and modify work order tasks and	wm_initiator

Roles in Field Service Management (continued)

Role title [name]	Description	Contains Roles
[wm_task_initiator]	part requirements when both the work order and work order task are in the draft state.	

Role integration with Customer Service Management

When you enable the Customer Service Management plugin (com.sn_customerservice) along with the Field Service Management plugin (com.snc.work_management) and add specific Customer Service roles to Field Service agents, they can view or create a case and also view additional customer service data. For more information on customer service agent roles, see [Roles installed with Customer Service Management](#).

Role integration for Customer Service agents

Adding this role	Allows agents
sn_customerservice.case_viewer	<ul style="list-style-type: none"> To have read access to cases. To view all fields in a case that a customer service agent [sn_customerservice_agent] can access.
sn_customerservice.customer_data_viewer	<p>To have read-only access to customer data entities such as:</p> <ul style="list-style-type: none"> Install base items Contracts Entitlements Accounts, contacts, and account team members Assets Consumers Sold product
sn_customerservice.proxy_creator	To create a case using a record producer.
wm_location_security	View data based on the provider service organization.

Script includes installed with Field Service Management

Script includes are added with Field Service Management.

Script includes for Field Service Management

Script include	Description
<i>WMTimelineGroupSchedulePage</i>	Schedules page script include for the field service resource chart.

Script includes for Field Service Management (continued)

Script include	Description
<i>WorkManagementInitiation</i>	Links to a newly created work order and transfers any relevant information.
<i>FSMQuestionnaireHelper</i>	Creates questionnaires and associates them with work order and work order tasks.

Geolocation script includes

Field Service Management adds the following geolocation script includes.

Script includes for Field Service Management geolocation

Script include	Description
<i>WMGeolocationAJAX</i>	Automatically routes tasks from the Field Service Management mobile dispatch map.
<i>WMGeolocationUtils</i>	Provides utilities for Field Service Management geolocation maps.
<i>WorkTaskRouting</i>	Routing functionality for work order tasks.

Client scripts installed with Field Service Management

Client scripts are added with Field Service Management.

Client scripts installed with Field Service Management

Client script	Table	Description
Calculate Window End	Work Order Task [wm_task]	Automatically populates Window End Date based on the latest SLA breach date. Default value: Inactive
Populate Short Description	Expense Line [fm_expense_line]	Automatically populates the short description of expense lines with the work order short description when expense lines are manually created from work orders. Cost Management <input checked="" type="checkbox"/> must be activated.
Hide End Date Fields	Work Order [wm_order]	Hide estimated_end when the request-driven process is used and hide expected_end when task-driven is used.
Update UI on load and model change	Asset Usage [sm_asset_usage]	
Show/Hide Task Map section	Work Order Task [wm_task]	This section of the map displays the location of the task and also shows the agents in the vicinity. This section needs to be visible only when the task is in the Pending Dispatch state.

Client scripts installed with Field Service Management (continued)

Client script	Table	Description
Part requirement activation	Work Order [wm_order]	Hides part requirements on the Work Order form if part requirements are not activated in Field Service Configuration.
Update Model and Quantity based on Asset	Asset Usage [sm_asset_usage]	

Business rules installed with Field Service Management

Business rules are added with Field Service Management.

Business rules installed with Field Service Management

Business rule	Table	Description
Accept	Work Order Task [wm_task]	Automatically moves a task from the Assigned state to Accepted if the Accept/Reject option is selected in Field Service Configuration.
Assigned	Work Order Task [wm_task]	Sets a task in the Draft state to the Assigned state if the Assigned to field is populated. This business rule is associated with the "Assigned (Draft to Assigned)" State flow.
Assigned(state flow business rule)	Work Order [wm_order]	Automatically moves an order to the Assigned state if the Assignment group or Assigned to are populated. ServiceNow recommends not editing this business rule.
Auto close Deliver and Receive Tasks	Work Order Task [wm_task]	Automatically moves a transfer order line task to Closed Complete state whenever the part is received and delivered within the agent stockroom.
Cancel Work Task	Work Order Task [wm_task]	Cancels any transfer orders for a work order task, via State Flows, when a task is cancelled.
Create First Work Order Task	Work Order [wm_order]	Creates the first task for a newly qualified work order.
Field Service Automation Group Types	Group [sys_user_group]	Ensures data integrity for dispatch group coverage information.
Field Service Automation Qualification	System Property [sys_properties]	Turns off the qualification stage whenever the <i>work.management.qualification</i> system property is set to No . This business rule turns on the qualification stage when the property is set to Yes .

Business rules installed with Field Service Management (continued)

Business rule	Table	Description
Populate Skills - Update Child Tasks	Work Order [wm_order]	When the CI is changed, updates the skills required in tasks for the order to contain those skills.
Populate Work Order from Template	Work Order [wm_order]	Populates a new work order from the work order model selected as a template.
Populate Window End Based On SLA	Task SLA [task_sla]	Populates latest Task SLA breach date from the parent work order. Default value: Inactive
Populate Window End Based On SLA	Work Order Task [wm_task]	Populates latest Task SLA breach date from the parent work order. Default value: Inactive
Ready for Qualification (approval off qu)	Work Order [wm_order]	Automatically moves a work order from the Draft state to Ready for Qualification when the Template field is populated.
Reassign	Work Order Task [wm_task]	Prevents task reassignment if the task has part requirements that are in a state of In transit .
RFD (approval qual both off)	Work Order [wm_order]	Automatically moves a work order from the Draft state to Ready when the Assigned to or Template field is populated.
Roll Up Changes	Work Order Task [wm_task]	<p>Updates the work order status based on changes to the work order task. This business rule rolls up the state changes that occur in tasks to the parent work order.</p> <p>If you don't want the state changes that occur in tasks to roll up to the parent work order, implement a condition on this business rule.</p> <p>Example condition: <code>current.sys_class_name != 'wm_task' && current.sys_class_name != 'wm_order'</code></p>
Start Work	Work Order [wm_order]	Automatically moves a work order from the Ready state to Work In Progress .
Start Work(state flow business rule)	Work Order Task [wm_task]	Automatically moves a task to the Work in process state if the Actual Start Work field is populated.
State Change - After - Deprecated	Work Order Task [wm_task]	Ensures that the field service life cycle is followed. ServiceNow recommends not editing this business rule. This business rule is deprecated and is marked inactive for

Business rules installed with Field Service Management (continued)

Business rule	Table	Description
		instances that are upgraded. This business rule is not installed for new instances.
State Change - Before	Work Order Task [wm_task]	Ensures that the field service life cycle is followed. ServiceNow recommends not editing this business rule. This business rule is deprecated and is marked inactive for instances that are upgraded. This business rule is not installed for new instances.
Sync up Delivery Time with WOT	Transfer Order [alm_transfer_order]	Synchronizes the delivery time with the work orders. Default value: Inactive
Transition - Cancel	Work Order [wm_order]	Ensures that the field service life cycle is followed. ServiceNow recommends not editing this business rule.
Transition - PendingDispatchToAssign	Work Order Task [wm_task]	Ensures that the field service life cycle is followed.
Transition - StateChange - Deprecated	Work Order [wm_order]	Ensures that the field service life cycle is followed. ServiceNow recommends not editing this business rule. This business rule is deprecated and is marked inactive for instances that are upgraded. This business rule is not installed for new instances.
Update questionnaires state to complete	Work Order Task [wm_task]	Closes all the pending optional questionnaires, when the work order task moves to Terminal state.
check active questionnaires	Work Order [wm_order]	Blocks subsequent state updates on work order record, when there are pending mandatory questionnaires that need to be completed.
Check active questionnaires	Work Order Task [wm_task]	Blocks subsequent state updates on work order task record, when there are pending mandatory questionnaires that need completed.
Work order task query rules	Work Order Task [wm_task]	When set to active, the query rules on the underlying table will be used to filter the records based on territory of the logged-in user.
Work order query rules	Work Order [wm_order]	When set to active, the query rules on the underlying table will be used to filter the records based on territory of the logged-in user.

Section 508 compliance features

You can view and interact with the certain Field Service features using Section 508 compliance features.

Section 508 compliance features

Access the following Field Service Management features using Section 508 compliance features:

- [Workforce Optimization for Field Service Manager Workspace dashboard](#)
- [Managing agent calendar](#)

Related topics

[Accessibility features](#) 

Work order task fields in the Field Service Contractor application

The Details tab in a work order task provides information about a task that helps an agent or manager to understand the task scope.

WOT number

Field	Description
Location	The geographical area where an agent executes the assigned task.
Initiated from	Parent task of the work order task.
Asset	Parts required to execute the task.
Scheduled start	Option to select date and time when the work on the task is expected to begin.
Estimated end	Estimated date when the work on the task will end. The date is automatically calculated based on the Scheduled start and Estimated work duration.
Estimated work duration	Option to select estimated time to complete the work. The duration can't exceed the total time of the window. This field is automatically set to an hour. If the task is in the Draft or Pending Dispatch states, you can edit this field.
Work type	Determines the type of work required to complete the task. Choices are as follows: Break Fix, Install, or Planned Maintenance
Under warranty	Indicates an existing warranty for one or more configuration items that are related with the task.
Description	Detail of the work to be performed at the work location. Give complete detail about the problem to avoid extra communication with the customer in the later stages of the work order life cycle.
Assignment group	Group that has the individual agent or vendor to complete the task. By default, this field shows the recommended assignment groups based on the location, asset, and skills for the task. If the field is empty, the system searches for the group covering the territory that includes the location of the task.
Assigned to	Shows the agent or manager who is currently assigned to the task

Smart Assessment template fields

Learn about fields in the **Create assessment form** to create Smart Assessment templates.

Create assessment template form

Field	Description
Template name	Unique name for the template.
Assessment name	An optional alternative name for generated assessment that will display to respondents rather than the template name.
Description	Purpose of the template.
Template category	Category for the assessment template. This value should be Field Service .
Assessment target	Table to be assessed. Selecting multiple tables makes the scope a combination of records from each table. Select Work Order Task to create the template to assess work order tasks.

Components installed with additional plugins for Field Service Management

Several types of components are installed with the additional plugins for the Field Service Management application.

Appointment booking components

The roles, properties, and tables for the appointment booking feature.

This plugin activates the Appointment Booking Demo Data (com.snc.appointment_booking_demo) plugin which provides the demo data.

Appointment booking adds the Appointment Booking menu to the application navigator and the following modules:

- **Appointment Booking Configuration:** Use this module to create an appointment booking configuration for an application and then configurations for each service within that application.
- **Appointment Bookings:** Use this module to view a list of appointments that have been booked for services. This list includes the work orders associated with each appointment.

Roles

Appointment booking adds the following roles.

Roles in Appointment booking

Role	Description
Appointment booking admin [sn_apptmnt_booking.appointment_booking_admin]	Creates appointment booking configurations for services within an application.
Appointment booking manager [sn_apptmnt_booking.appointment_booking_manager]	Creates and updates appointment booking records.
Appointment booking user [sn_apptmnt_booking.appointment_booking_user]	Books appointments for services from the Customer or Consumer Service Portal. This user can also reschedule or cancel appointments and view appointment details.

Properties

Appointment booking adds the following properties.

Properties installed with Appointment booking

Property	Description
sn_apptmnt_booking.user_max_new_appointments_per_day	The maximum number of appointments that a user can create daily. The upper limit is 100 appointments per day. <ul style="list-style-type: none"> • Type: Integer • Default value: 100 • Location: System Properties list
sn_apptmnt_booking.max_appointments_returned	The maximum number of appointment availability windows displayed in the Select Appointment window. <ul style="list-style-type: none"> • Type: Integer • Default value: 100 • Location: System Properties list
sn_apptmnt_booking.return_unavailable_slots	Disabling this property enables you to display only available slots in the appointment window for appointment booking. <ul style="list-style-type: none"> • Type: True/False • Default value: true • Location: System Properties list
sn_apptmnt_booking.DisableLockingOnBRLevel	Allows you to specify tables where locking is managed differently to prevent double bookings when booking appointments. Enter a list of these tables, separated by commas,

Properties installed with Appointment booking (continued)

Property	Description
	<p>to disable lock validation at the business rule level.</p> <ul style="list-style-type: none"> • Type: String • Default value: (blank) • Location: System Properties list
sn_apptmnt_booking.DisableMaxApptLimitForUsers	<p>Specifies a list of users (sys_ids) who are allowed an unlimited number of appointments per day.</p> <ul style="list-style-type: none"> • Type: String • Default value: (empty) • Location: System Properties list
sn_apptmnt_booking.fetch_next_available_slot	<p>Toggle the flag to enable or disable fetching the next available slot on opening the new Appointment Booking modal.</p> <ul style="list-style-type: none"> • Type: True/False • Default value: false • Location: System Properties list
sn_apptmnt_booking.logging.verbosity	<p>Control users logging for Appointment Booking.</p> <ul style="list-style-type: none"> • Type: Choice list • Default value: error • Location: System Properties list
sn_apptmnt_booking.SingleConcurrentLockAppointmentTables	<p>When configured, Appointment Booking only allows one lock per time slot. Multiple concurrent locks are not supported for these tables.</p> <ul style="list-style-type: none"> • Type: String • Default value: wm_order,wm_task • Location: System Properties list
sn_apptmnt_booking.use_read_replica_from_ui	<p>Creates a read replica of the Appointment Bookings (sn_apptmnt_booking_appointment_booking) table when triggered from the UI.</p> <ul style="list-style-type: none"> • Type: True/False • Default value: true • Location: System Properties list

Properties installed with Appointment booking (continued)

Property	Description
sn_apptmnt_booking.use_task_activity_catalog	<p>Enables the use of the column activity_catalog created on task_activity for querying (filters the task activities for a work order task based on appointments). ServiceNow recommends not to modify the value of the property as it affects performance of Appointment Booking.</p> <ul style="list-style-type: none"> • Type: True/False • Default value: true • Location: System Properties list

Tables

Appointment booking adds the following tables.

Tables installed with Appointment booking

Table	Description
Appointment Booking Service Configuration [sn_apptmnt_booking_service_config]	Stores service configuration records for appointment booking.
Appointment Booking Configuration [sn_apptmnt_booking_config]	Stores application configurations records for appointment booking.
Appointment Bookings [sn_apptmnt_booking_appointment_booking]	Stores records for all appointments, including booked, rescheduled, and canceled appointments.

Time Recording for Field Service components

The plugin and roles for the Time Recording for Field Service.

Plugins

Activation of the Time Recording for Field Service (com.snc.wm_time_recording) plugin activates these related plugins if they are not already active.

Plugins

Plugin	Description
Time Card Management [com.snc.time_card]	Enables time card users such as task assignees to report and track their time for the assigned tasks.
Cost Management [com.snc.cost_management]	Enables tracking configuration item costs. The costs can be allocated to business units and used in reports.

Roles

Time Recording for Field Service adds the following roles:

Roles

Role	Description
Time card user timecard_user	<p>Create time worked records, time cards, and time sheets. Users with the wm_agent role inherit the timecard_user role.</p> <p>Note: This role restricts access to the time sheets, time cards, and time worked records created by the agent.</p>
Time card admin timecard_admin	<p>View, approve, and reject time cards and time sheets. Users with the wm_manager role inherit the timecard_admin role.</p> <p>Note: This role restricts access to the time sheets, time cards, and time worked records created by the agents in the groups assigned to the manager.</p>

Field Service - Signature Pad components

Several types of components are installed with Field Service - Signature Pad, including tables and script includes.

Tables

Field Service - Signature Pad adds the following tables.

Tables installed with Signature Pad

Table	Description
Signature Images [signature_image]	Stores images of customer signatures for work orders.

Script Include

Field Service - Signature Pad adds the following script include.

Script includes installed with Signature Pad

Script include	Description
GeneralWOForm	Creates a PDF of the work order form.

Contractor Management components

The plugin and roles for the Contractor Management application.

Contractor Management adds the Outsourced Field Service menu to the application navigator and the following modules:

- **My Outsourced Service providers:** Use this module to view the list of onboarded contractor companies and its external workforce managed by the logged-in user.
- **Outsourced Service Providers:** Use this module to view the list of all the contractor companies, onboard contractor companies and their external workforce, and create groups.
- **Field Service:** Use this module to view a list of activities associated with Field Service Management and managed by an internal contractor manager. This list includes the work order tasks assigned to external agents, personal stockrooms of external agents and managers, stockrooms based on the associated external groups, and groups created for contractor companies.

Roles

Contractor Management adds the following roles:

Roles in Contractor Management

Role	Description
Field Service Contractor Management Internal Manager [wm_contractor_manager_int]	Manager of the organization that outsources its work order tasks to the contractor companies.
Field Service Contractor Management External Agent [wm_ext_agent]	Employee of the contractor company who works on the assigned tasks.
Field Service Contractor Management External Manager [wm_ext_manager]	Manager of the contractor company to whom tasks are outsourced and who is responsible for reviewing and reassigning tasks to agents.

Task Filters

Contractor Management adds the following task filters:

Task filters installed with Contractor Management

Task Filter	Conditions	Criterion	Function
Contractor tasks Ensure that the Field Service Contractor Management plugin is active. For more information, see Activate Field	<ul style="list-style-type: none"> • State is pending dispatch • Location is populated 	<p>Distance between task and contractors</p> <p>Matching skills of contractors</p>	Only eligible for external contractor assignment.

Task filters installed with Contractor Management (continued)

Task Filter	Conditions	Criterion	Function
<p>Service Contractor Management.</p> <p>Demo data is provided with this plugin.</p>			

Field Service Marketplace components

Several types of components are installed with the activation of the Field Service Marketplace feature including tables, roles, system properties, business rules, and script includes.

Tables

Field Service Marketplace adds the following tables:

Tables installed with Field Service Marketplace

Table	Description
<p>Marketplace engagement method [marketplace_engagement_method]</p>	<p>This table has the basic rules for engaging with contractors. The engagement methods define the ways contractors can respond to the marketplace requests.</p>
<p>Marketplace request [marketplace_request]</p>	<p>This table establishes the relationship between engagement method and work order tasks. This table is populated by the dispatcher with all relevant fields to progress the request.</p>
<p>Marketplace assignment [marketplace_assignment]</p>	<p>This table maintains distinct records for each contractor, offering the dispatcher the capability to choose contractors permitted to participate in a marketplace request.</p>
<p>Marketplace response [marketplace_response]</p>	<p>This table is designated to gather responses from all contractors regarding their pricing, as well as the intended start and completion dates for the task.</p>
<p>Eligible engagement method [eligible_engagement_method]</p>	<p>This table defines the list of eligible engagements for a marketplace task filter.</p>

Roles

Field Service Marketplace adds the following roles:

Roles installed with Field Service Marketplace

Role	Description
sn_mktplace_core.mktplace_admin	Administrator role can create marketplace engagement methods.

Roles installed with Field Service Marketplace (continued)

Role	Description
sn_mktplace_core.mktplace_requestor	Requestor role can push tasks to the marketplace.
sn_mktplace_core.mktplace_fulfiller	Fulfiller role can respond to marketplace requests.

System properties

Field Service Marketplace adds the following system properties:

The following table lists the system properties that are required to set up Field Service Marketplace. Navigate to **All System Properties** list

System properties installed with Field Service Marketplace

System property	Description
sn_fsm_mktplace.maximum_number_of_contractors_to_fetch_and_show_for_a_marketplace_request	<p>Maximum number of contractors to fetch and show for a Marketplace request.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 10
sn_fsm_mktplace.use_playbook_experience_for_marketplace	<p>Use playbook experience for marketplace.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true
sn_fsm_mktplace.wot_fields_to_restrict_update	<p>Comma separated fields to restrict update when Work Order Task is pushed to marketplace.</p> <ol style="list-style-type: none"> 1. Type: String 2. Default values: location,asset,work_type,estimated_work_duration,estimated

Task Filters

Field Service Marketplace adds the following task filters:

Task filters installed with Field Service Marketplace

Task Filter	Conditions	Criterion	Function
Marketplace tasks Ensure that the Field Service Marketplace plugin is active. For more information, see	<ul style="list-style-type: none"> • State is pending dispatch • Location is populated 	<p>Matching skills of contractors</p> <p>Distance between task and contractors</p>	Eligible for marketplace assignment.

Task filters installed with Field Service Marketplace (continued)

Task Filter	Conditions	Criterion	Function
<p>Activate Field Service Marketplace.</p> <p>Demo data is provided with this plugin.</p>			

Business rules

Field Service Marketplace adds the following business rules:

Business rules installed with Field Service Marketplace

Business rule	Table	Description
Restrict order change marketplace task	Work Order [wm_order]	Blocks suspension of a work order when one of its tasks is pushed to the marketplace.
Restrict fields for marketplace task	Work Order Task [wm_task]	Blocks updates to certain work order task fields.
Cancel mp request on task cancellation	Work Order Task [wm_task]	Cancels any open marketplace request when the work order task is cancelled.
Restrict marketplace task with assigned	Work Order Task [wm_task]	Blocks a work order task with an assignment group populated and marketplace task set to true.
Restrict updates to marketplace flag	Work Order Task [wm_task]	Disables changing marketplace task flag of the work order task to false.
Disable changes when open request exists	Marketplace engagement method [marketplace_engagement_method]	Disallows changes to the engagement method when an open marketplace is using it.
Disable cost/time update from list	Marketplace engagement method [marketplace_engagement_method]	Validates edits of time and cost fields on the marketplace engagement method table list view.
Cancel all assignments and responses	Marketplace request [marketplace_request]	Cancels marketplace assignments and inactivate marketplace responses when a marketplace request is canceled.
Validate request insertion	Marketplace request [marketplace_request]	Blocks the creation of a new marketplace request when an open request exists.

Business rules installed with Field Service Marketplace (continued)

Business rule	Table	Description
Set assignments to timeout on close	Marketplace request [marketplace_request]	Updates the state of marketplace assignment records when a marketplace request is closed.
Create MP Assignment records in draft	Marketplace request [marketplace_request]	Creates marketplace assignments in the draft state when a marketplace request is created.
Check end time is more than start	Marketplace request [marketplace_request]	Validates start and end times of the marketplace request.
Cancel old flow on request end update	Marketplace request [marketplace_request]	Cancels the old flow responsible for tracking the request end time, when the end time is updated.
Validate assignment insertion	Marketplace assignment [marketplace_assignment]	Blocks the creation of a new assignment record for a request that isn't open. Blocks duplicate assignment records for an open request.
Inactivate responses when withdrawn	Marketplace assignment [marketplace_assignment]	If withdrawn, inactivates response of contractor.
Check close condition	Marketplace assignment [marketplace_assignment]	Handles closing marketplace request and flow data records based on its close condition.
Unaward assignments when task is awarded	Marketplace assignment [marketplace_assignment]	When a task is awarded to a contractor, other contractors' assignment records are marked unawarded.
Query on Assignment for Task	Marketplace assignment [marketplace_assignment]	Query business rule on marketplace assignment table
Assigned from marketplace	Marketplace assignment [marketplace_assignment]	When a task is awarded to a contractor, closes the request and updates the work order task with the necessary details. Updates the work order task scheduling method to marketplace.
Override wait duration on rejection	Marketplace assignment [marketplace_assignment]	For a progressive push request, this BR will override the set wait duration when the current fulfiller receiving the bid, rejects the request

Business rules installed with Field Service Marketplace (continued)

Business rule	Table	Description
Disable negative in response duration	Marketplace response [marketplace_response]	Disables insertion of responses with negative duration and checks response's start and end with work order task window start and end.
Update Assignment to accept	Marketplace response [marketplace_response]	When a response is received, update the assignment record state of that contractor to accepted.
Validate response insertion	Marketplace response [marketplace_response]	Blocks insertion of response if the work order task's "Is Fixed Window" flag is true and the response's start and end don't fall within the work order task window. Blocks creation of responses for requests that aren't open. Inactivates the previous response when a new response is received from the contractor.
Query on Response for Task	Marketplace response [marketplace_response]	Query business rule on marketplace response table.
Evaluate response	Marketplace response [marketplace_response]	This BR will help in evaluating the response received for a request, provided the selected engagement method has a response evaluation flow.
Set group resource type for contractors	Task Filter [dynamic_schedule_task_filter]	This BR will set the resource type to sys_user_group for contractor or marketplace task filters.
Validate eligible engagement changes	Eligible engagement method [eligible_engagement_method]	This BR will validate any insertion or updates made to the eligible engagement method table.

Script includes

Field Service Marketplace adds the following script includes:

Script includes installed with Field Service Marketplace

Script include	Description
<i>MarketplaceCoreUtil</i>	Contains util methods used for generic Marketplace core workflows.

Script includes installed with Field Service Marketplace (continued)

Script include	Description
<i>FSMMarketplaceUtil</i>	Contains util methods used for FSM specific workflows of Marketplace.
<i>FSMMarketplacePlaybookUtil</i>	Contains util methods used for Playbook workflow of Marketplace.
<i>FieldServiceMarketplaceConstants</i>	Holds constants.
<i>MarketplaceCoreAjaxHelper</i>	Contains util methods used in Marketplace Core client-side scripts.
<i>FSMMarketplaceAjaxHelper</i>	Contains util methods used in FSM Marketplace client-side scripts.
<i>FSMMarketplaceCspUtil</i>	Util file that holds methods used in Playbook's CSP.
<i>FieldServiceMarketplaceDaoBase</i>	The base dao for field service marketplace entities. All the entities can extend this class to re-use the common functionalities
<i>FieldServiceMarketplaceEligibleEngagementDao</i>	Contains all the queries and insertion made on eligible_engagement_method table
<i>MarketplaceTaskProcessorWOTImpl</i>	Work order task implementation for MarketplaceTaskProcessorExtPoint
<i>MarketplaceTaskProcessorBase</i>	This class contains default implementation for MarketplaceTaskProcessor. It extends MarketplaceTaskProcessorPicker to choose the correct implementation of the MarketplaceTaskProcessorExtPoint.
<i>MarketplaceTaskAssignment</i>	This class will contain custom implementations for MarketplaceTaskAssignment. This will be the class that will be used for making any method invocations
<i>MarketplaceTaskAssignmentBase</i>	This class contains default implementation for MarketplaceTaskAssignment. It extends MarketplaceTaskAssignmentPicker to choose the correct implementation of the MarketplaceTaskAssignmentExtPoint.
<i>FieldServiceMarketplaceEngagementDao</i>	Contains all the queries and insertion made on marketplace_engagement_method table
<i>FieldServiceWorkManagementDao</i>	Contains all the Work Management related queries
<i>MarketplaceEntityValidator</i>	This class will contain custom implementations for MarketplaceEntityValidator. This will be the class that will be used for making any method invocations
<i>MarketplaceEntityValidatorBase</i>	This class contains default implementation for MarketplaceEntityValidator. It extends

Script includes installed with Field Service Marketplace (continued)

Script include	Description
	MarketplaceEntityValidatorPicker to choose the correct implementation of the MarketplaceEntityValidatorExtPoint.
<i>MarketplaceTaskProcessor</i>	This class will contain custom implementations for MarketplaceTaskProcessor. This will be the class that will be used for making any method invocations
<i>FieldServiceMarketplaceResponseData</i>	Contains all the queries and insertion made on marketplace_response table
<i>MarketplaceDynamicSchedulingUtil</i>	This is a util containing methods to be shipped when dynamic scheduling is installed along with marketplace
<i>MarketplaceEntityValidatorAssignmentImplementation</i>	Marketplace Assignment Implementation for MarketplaceEntityValidatorExtPoint
<i>FieldServiceMarketplacePlaybookData</i>	Contains all the queries and insertion made on all playbook related tables
<i>MarketplaceTaskAssignmentWOTImpl</i>	Work order task implementation for MarketplaceTaskAssignmentExtPoint
<i>FieldServiceMarketplaceRequestData</i>	Contains all the queries and insertion made on marketplace_request table
<i>MarketplaceEntityValidatorRequestImplementation</i>	Marketplace Request Implementation for MarketplaceEntityValidatorExtPoint
<i>MarketplaceEntityValidatorResponseImplementation</i>	Marketplace Response Implementation for MarketplaceEntityValidatorExtPoint
<i>FieldServiceMarketplaceAssignmentData</i>	Contains all the queries and insertion made on marketplace_assignment table
<i>FSMMarketplaceGlobalUtil</i>	Script Includes containing utils to be run at a global scope for marketplace module
<i>MarketplaceTaskAssignmentPicker</i>	Script include to choose the implementation of the MarketplaceTaskAssignmentExtPoint
<i>MarketplaceCoreExtPointUtil</i>	Utility used by the marketplace module to retrieve extension points
<i>MarketplaceTaskProcessorPicker</i>	Script include to choose the implementation of the MarketplaceTaskProcessorExtPoint
<i>MarketplaceCoreConstants</i>	Script Include to hold the constants for marketplace core plugin
<i>MarketplaceEntityValidatorPicker</i>	Script include to choose the implementation of the MarketplaceEntityValidatorExtPoint

Customer Experience components

Several types of components are installed with the Customer Experience feature, including properties, tables, and business rules.

Tables

Customer Experience adds the following table.

Table installed with the Customer Experience feature

Table	Description
Agent Rating [wm_agent_rating]	Stores the agent rating record.

Properties

Customer Experience adds the following properties.

Properties installed with the Customer Experience feature

Property	Description
sn_fsm_customer_ex.work.management.cx.shareAgentsDetails	<p>Displays the agent location map with the latest location of an agent.</p> <ul style="list-style-type: none"> Type: true/false Default value: true Location: Field Service > Administration > Properties
sn_fsm_customer_ex.work.management.cx.showRouteOnMap	<p>Displays the route taken by an agent on a map.</p> <ul style="list-style-type: none"> Type: true/false Default value: true Location: Field Service > Administration > Properties <p>Note: If this property is disabled, the map displays a straight line route.</p>

Business rules

Customer Experience adds the following business rules.

Business rule installed with the Customer Experience feature

Business rule	Table	Description
Auto assessment business rule	Work Order Task [wm_task]	Triggers an agent feedback survey when a work order task is set to Complete.

Field Service Capacity and Reservations Management components

Several types of components are installed with the Field Service Capacity and Reservations Management feature, including tables, business rules, scheduled jobs, and script includes.

Install the Field Service Contractor Management plugin (com.snc.fsm_contractor_management) to take the external groups into account while reserving, defining, and assigning the work capacity. For more information, see [Activate Field Service Contractor Management](#).

Activation of Field Service Capacity and Reservations Management adds the Capacity Management menu to the application navigator and the following modules:

- **Capacity Reservations:** Reserve a capacity percentage of a group or agents availability to meet specific demands. For example, 60% for Break-Fix Work types and 40% for Install work types.
- **Capacity Definitions:** Allocate the correct amount of work to internal or external work groups based on defined hours, task count, or agent work schedules. You can define capacity for a day, week, month, or year.
- **Capacity Assignments:** Assign the capacity and capacity reservations to internal work groups and external groups of contractor companies.
- **Capacity Usages:** View the record of capacity used by different groups and agents.

Note:

You must select **using dynamic scheduling** in the **Assignment method for tasks** configuration option to enable your application to distribute work based on the capacity management rules.

Tables

Capacity management adds the following tables.

Tables installed with the Capacity and Reservations Management feature

Table	Description
Capacity Definition [wm_capacity_definition]	Stores the capacity of a group or internal field service agent and the reservation rules to be used while assigning tasks.
Demand Channel [wm_demand_channel]	Stores daily capacity and demand data for each assignment, used for the capacity dashboard.
Capacity Demand Metrics [wm_capacity_for_demand]	Stores the metrics data for all capacity assignments
Capacity Reservation [wm_capacity_reservation]	Stores the reservation definition and exclusion conditions.
Capacity Reservation Rule [wm_capacity_reservation_rule]	Stores the reservation rules and the conditions for which the reservations should be used.
Capacity Assignment	Stores capacity definition assignments to groups within a specific time period to help avoid conflicts in capacity in a given time

Tables installed with the Capacity and Reservations Management feature (continued)

Table	Description
[wm_capacity_assignment]	period by validating the effective from and effective to dates.
Capacity Usage [wm_capacity_usage]	Stores the capacity used by an internal field service agent or a group within a specific time period.

Business rules

Capacity management adds the following business rules.

Business rules installed with the Capacity and Reservations Management feature

Business rule	Table	Description
Avoid Conflict in Capacity Time Period	Capacity Assignment [wm_capacity_assignment]	Monitor the time period defined for the Capacity Assignment to ensure that any group does not have multiple capacity assignments in the same time period or overlapping intervals.
Update Capacity on task change	Work Order Task [wm_task]	Add or update capacity whenever a task is assigned or unassigned. You can update capacity whenever the estimated work or travel duration changes.
Update Capacity on task delete	Work Order Task [wm_task]	Update the capacity used whenever an open task is deleted within the given window.
Validate Capacity Value	Capacity Definition [wm_capacity_definition]	Validates the value of the provided capacity for the capacity definition. Capacity should be a non-zero positive integer value.
Validate Effective to and Effective from	Capacity Assignment [wm_capacity_assignment]	Validates the dates entered in the Effective to and Effective from fields in the capacity assignment table. The system calculates the Effective to date based on the value entered in the Repeat for field if the Capacity by value is not selected as for the agent schedule. The Effective from value should always be on or after the current

Business rules installed with the Capacity and Reservations Management feature (continued)

Business rule	Table	Description
		date, and before or equal to the Effective to date. While updating the capacity assignment, the Effective to value cannot be set to a date before capacity usage exists.
Validate Percent Allocated value	Capacity Reservation Rule [wm_capacity_reservation_rule]	Validates the allocated percentage value in the Capacity Reservation Rule table. This value should be a non-zero positive integer less than or equal to 100.
Update Domain for capacity assignment	Capacity Assignment [wm_capacity_assignment]	The system assigns domains to records based on information in the Type field. If the Type is 'Territory internal agents' or 'Territory contractor group', the domain is set using the Territory field. For any other type, the domain is determined by the Group field.

Note:

You must select **using dynamic scheduling** in the **Assignment method for tasks** configuration option to enable your application to distribute work based on the capacity management rules.

Scheduled Jobs

The Capacity and Reservations Management adds the following scheduled jobs. To find them, navigate to **All > sn_schedulejobs.do**.

Scheduled job installed with the Capacity and Reservations Management feature

Scheduled job	Description
Compute Capacity Demand Metrics Data	Calculates and generates data for the Field Service Territory Capacity Analytics dashboard.

Script Includes

The Capacity and Reservations Management adds the following scheduled jobs. To find them, navigate to **All > Script Includes**.

Script includes installed with the Capacity and Reservations Management feature

Script include	Description
FSMDemandManagementQueryUtil	Contains all queries for generating data for the Field Service Territory Capacity Analytics dashboard.
FSMDemandManagementUtil	Calculates and generates data for the Compute Capacity Demand Metrics Data scheduled job.

Roles

The Capacity and Reservations Management adds the following roles. To find them, navigate to **All > Roles**.

Roles installed with the Capacity and Reservations Management feature

Script include	Description
sn_fsm_capacity_mg.wm_capacity_write	Allows CRUD access to all the capacity related tables
sn_fsm_capacity_mg.wm_capacity_read	Allows read access to all the capacity related tables and Capacity console workspace

Field Service Crew Operations components

The plugin, roles, tables, script includes, and business rules for the Field Service Crew Operations application.

Field Service Crew Operations adds the My Crew menu to the application navigator and the following modules:

- My Crews: Enable managers and dispatchers to create and manage crews.
- My Crew Tasks: Enable agents to view the crew tasks assigned to a crew they belong to.

Roles

Field Service Crew Operations adds the following roles:

Roles in Field Service Crew Operations

Role	Description
Field Service Crew Moderator [wm_crew_moderator]	Enables dispatchers and managers to create crews, manage crew members, assign skills and locations, and assign them to assignment groups.

Tables

Field Service Crew Operations adds the following tables:

Tables installed with Field Service Crew Operations

Table	Description
Crew wm_crew	Stores high-level information about the crew, such as the crew size, leader, location, schedule, travel radius.
Crew Group wm_crew_group	Stores the mapping of crews to the selected assignment groups.
Crew Member wm_crew_member	Stores the various members of the crew and their effective availability in the crew.
Crew Requirement wm_crew_requirement	Stores fine-grained requirements for a crew, such as the minimum crew size and recommended size.
Crew Skill wm_crew_skill	Stores the skills that the crew members currently possess.
Task Assignee wm_task_assignee	Stores the mapping of all agents working on a work order task.

Script Includes

Field Service Crew Operations adds the following new script includes:

Script Includes for Field Service Crew Operations

Script Include	Description
<i>CrewSchedulingUtils</i>	Updates the crew members, crew skills, crew requirements, task assignees, and the crews an agent belongs to.
<i>CrewSchedulingClientUtils</i>	Fetches the crews that an agent belongs to and the tasks assigned to those crews for client-side script use.
<i>CrewLocationFromTask</i>	Rates crews based on their location and distance to the task.
<i>CrewMatchingDimensionSkills</i>	Rates crews based on their skills and the skills required for the task.
<i>CrewTasksScheduleUtil</i>	Determines crew and agent schedule.
<i>FSMUtil</i>	Checks for crew radius, distance to the task, and whether the task needs a crew.
<i>SMDateValidation</i>	Checks for task scheduling conflicts if an agent is already part of a crew, and whether an agent can be added to a crew depending on effective from or effective to dates.

Script Includes for Field Service Crew Operations (continued)

Script Include	Description
<i>SMGeoDistanceUtils</i>	Extends agent functions to the crew, such as finding midnight of that day for the crew, finding the next task on the same day, getting multiple agent locations, and calculating travel duration.
<i>TimeRecordingHelper</i>	Modifies the information message to include an agent's name.

Business Rules

Field Service Crew Operations adds the following business rules:

Business rules installed with Field Service Crew Operations

Business Rule	Table	Description
Abort deletion of crew	Crew [wm_crew]	Prevents deletion of a crew if the crew is referenced in any work order task.
Abort inactivation of crew	Crew [wm_crew]	Prevents the inactivation of a crew if the crew has any active task assignments.
Adds default skill level	User Skill [sys_user_has_skill]	Adds default skill level.
Add group and member for crew leader	Crew [wm_crew]	Creates wm_crew_group and wm_crew_member records for the crew leader.
Add group skills to crew	Crew Group [wm_crew_group]	Adds new skills to the crew whenever a new group is added to the crew.
Add missing crew groups for crew member	Crew Member [wm_crew_member]	Updates a crew group when a new member is added to the crew.
Calculate estimated duration for crew	Work Order Task [wm_Task]	Calculates the estimated travel duration of a crew.
Check crew size	Crew [wm_crew]	Validates the crew size at the time of crew creation.
Check crew size on creation	Crew Member [wm_crew_member]	Validates the crew size at the time of crew member addition.
Check crew size on updation	Crew Member	Validates the number of members in a crew when

Business rules installed with Field Service Crew Operations (continued)

Business Rule	Table	Description
	[wm_crew_member]	a crew member record is updated or deleted.
Check duplicate members for same crew	Crew Member [wm_crew_member]	Prevents the addition of duplicate members in a crew .
Check leader availability for task crew	Crew [wm_crew]	Checks the availability of the crew leader at the time of assigning a task to the task-specific crew.
Check member is part of any active crew	Crew Member [wm_crew_member]	Ensures that a crew member is not part of multiple crews at the same time to avoid conflicts in the crew membership of a crew member.
Check task conflicts for crew members	Crew Member [wm_crew_member]	Checks whether the crew member has any conflict due to existing task assignments.
Check task conflicts for task assignees	Work Order Task [wm_task_assignee]	Checks for any conflicts in the task assignee schedule due to the existing task assignment.
Crew radius check	Work Order Task [wm_Task]	Shows an information message when the task assigned to a crew is outside the covered radius.
Date Checks	Crew Member [wm_crew_member]	Validates the effective from and effective to dates for crew members.
Deactive member when crew is inactive	Crew [wm_crew]	Deactivates the crew members when a crew is not active.
Deactivate task crews	Work Order Task [wm_Task]	Marks the task-specific crew as inactive when the task is completed or canceled.
Delete task assignees for task crews	Crew Member [wm_crew_member]	Deletes task assignees from a work order task when a member is removed from the task-specific crew.
Disable completed/cancelled task crews	Crew [wm_crew]	Sets a crew to inactive after the assigned task is completed or canceled.
Manage task crew requirement	Work Order Task	Creates and deletes the crew requirement of a work order task.

Business rules installed with Field Service Crew Operations (continued)

Business Rule	Table	Description
	[wm_Task]	
Remove group skills from crew	Crew Group [wm_crew_group]	Deletes skills from the crew when a crew group is deleted from the crew.
Restrict actions on crew leader	Crew Member [wm_crew_member]	Restrict actions on crew leader.
Restrict updates to primary leader	Work Order Task [wm_task_assignee]	Restricts the ability to update or delete the primary leader of a crew in the task assignees related list.
Replicate crew member task travel time	Work Order Task [Task_time_worked]	Records the time taken by crew members to travel to the task location and the time they spent working on a work order task.
Set crew assigned to as crew leader	Work Order Task [wm_Task]	Sets the Assigned to field with the crew leader name when a task is assigned to a crew.
Set skill level inherited to false	Crew Skill [wm_crew_skill]	Sets the Skill Level Inherited field to false.
Task crew - check leader available	Crew [wm_crew]	Checks the availability of the crew leader when assigning a task to the task-specific crew.
Update crew effective dates	Work Order Task [wm_Task]	Sets the effective dates for crew members similar to the task start and end dates for task-specific crews.
Update initiated from task	Crew [wm_crew]	Updates the Initiated from field with the work order task number.
Update task assignees for task crew	Crew Member [wm_crew_member]	Adds or updates the task assignees in a work order task when the task is assigned to the task-specific crew.
Update travel duration on crew tasks	Work Order Task [wm_Task]	Updates the travel duration for work order tasks that require a crew based on the value of the Assigned Crew field.

Business rules installed with Field Service Crew Operations (continued)

Business Rule	Table	Description
Validate Crew	Crew [wm_crew]	Validates the crew details when the crew is created.
Validate crew group delete	Crew Group [wm_crew_group]	Prevents the deletion of a crew group when an active member is in the crew from this group.
Validate crew member effective dates	Crew Member [wm_crew_member]	Validates the effective from and effective to dates for crew members.
Validate crew size	Crew Requirement [wm_crew_requirement]	Validates the minimum and recommended crew size for a work order task.

Intelligent Task Recommendations components

Several types of components are installed with the Intelligent Task Recommendations components feature, including tables and business rules.

Intelligent Task Recommendations adds the Task Recommendations Administration menu to the application navigator. The feature adds the following modules:

- Task Recommendation Policies
- Task Recommendation Applicabilities
- Recommendation Criteria
- Task Recommendation Properties

Tables

Field Service Management Intelligent Task Recommendations adds the following tables.

Tables installed with the Intelligent Task Recommendations components feature

Table	Description
Task Recommendation Policy Related Criteria [task_rec_m2m_recommend_policy_criteria]	Stores the related criteria records for task recommendation policies.
Task Recommendation Applicability [task_rec_recommendation_applicability]	Stores the application records along with their default task recommendation policies.
Recommendation Criteria [task_rec_recommendation_criteria]	Stores the task recommendation criteria records.
Task Recommendation Policy [task_rec_recommendation_policy]	Stores the task recommendation policy records.

Business Rules

Field Service Management Intelligent Task Recommendations adds the following business rules.

Business rules installed with the Intelligent Task Recommendations components feature

Business rule	Table	Description
Validate order and weight	Task Recommendation Policy Related Criteria [task_rec_m2m_recommend_policy_criteria]	Ensures the order of filter constraints and the weight and order of ranking criteria for a task recommendation policy. This value must be a positive integer number.
Validate table for policy and criteria	Task Recommendation Policy Related Criteria [task_rec_m2m_recommend_policy_criteria]	Validates that the same tables are selected in the Prefetched table field of a recommendation criteria and in the Table field of a task recommendation policy.
Validate delete of recommendation policy	Task Recommendation Policy [task_rec_recommendation_policy]	Prevents the deletion of a policy if the policy is specified in the Default task recommendation policy field of the Task Recommendation Applicability form.

Intelligent Task Recommendations system properties

Intelligent Task Recommendations uses the following properties.

These properties are located at **Field Service > Task Recommendations Administration > Task Recommendation Properties**.

System properties for Task Recommendation

Property	Definition
sn_task_recommend.max_return_tasks	Sets the maximum number of tasks to be returned to the dispatcher. <ul style="list-style-type: none"> Type: Integer Default value: 5
sn_fsm_task_rec.task_recomm_geo_routing_travel_time_estimator	Use Google Maps API, Beans.AI, or straight-line estimates to calculate the estimated agent travel time. Calculates the distance to task locations based on the route taken by the agent. <ul style="list-style-type: none"> Type: Choice list Default value: <i>Use Google Maps API</i>

System properties for Task Recommendation (continued)

Property	Definition
sn_fsm_task_rec.task_recomm_use_geo_history	<p>Enables the system to look up the agent location using the geo history table.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: true
sn_task_recommend.logging_level	<p>Controls the logging level displayed for Field Service Management while recommending tasks.</p> <ul style="list-style-type: none"> • Type: Choice list • Default value: Error

Predefined recommendation criteria

There are two types of recommendation criteria, filter constraints and ranking criteria. The system provides a set of predefined criteria.

Recommendation criteria

The following are a few built-in recommendation criteria for Intelligent Task Recommendation. When configuring intelligent task recommendation settings, you can use one or more of these criteria in your task recommendation policies.

Filtering Constraints

Name	Description
Exclude rejected technicians	<p>Filters tasks that have been rejected by the agents in the specified time period.</p> <p>The default value is 24 hours.</p> <p>You can configure the time value using the <i>work.management.rejected.technician.duration</i> property.</p>
Exclude tasks agent cannot travel to	Filters out tasks that the agent cannot travel to in the selected time window.
Must have mandatory parts	Filters out tasks for which the defined mandatory parts are not available with the agent.
Must have mandatory skills	Filters out tasks for which the defined mandatory skills are not possessed by the agent.
Filter Tasks on Agent Efficiency Criteria	Filters out the tasks that match with the agent's efficiency.

Filtering Constraints (continued)

Name	Description
	<p>i Note: Requires the activation of the Field Service Agent Efficiency plugin (com.snc.fsm_agent_efficiency).</p>

Ranking Criteria

Name	Description
Distance from task	<p>Rates tasks based on the travel distance. Rates whether the time needed by an agent to travel from the agent's current location to the task location is within the selected time window.</p>
Matching parts	<p>Rates tasks based on whether the agent has the matching parts required to complete the task.</p> <p>Mandatory parts are not honored in the ranking criteria. To filter out tasks for which the agent does not have the mandatory parts, you must add the <i>Must have mandatory parts</i> filter constraint.</p>
Matching skills	<p>Rates tasks based on whether the agent has the skills required to complete the task.</p> <p>Mandatory skills are not honored in the ranking criteria. To filter out tasks for which the agent does not have the mandatory skills, you must add the <i>Must have mandatory skills</i> filter constraint.</p>
Rank Tasks On Agent Efficiency Criteria	<p>Ranks the tasks that are pending to be dispatched, based on the Agent Efficiency Criteria.</p> <p>i Note: Requires the activation of the Field Service Agent Efficiency plugin (com.snc.fsm_agent_efficiency).</p>

Field Service with Service Locations Support components

Roles installed with activation of the Field Service with Service Locations Support (com.snc.fsm_service_locations) plugin.

Note:

The Application Files table lists the components that are installed with this application. For instructions on how to access this table, see [Find components installed with an application](#).

Demo data is available for this feature.

Roles installed

Roles in Field Service with Service Locations Support

Role title	Description	Contains roles
Service Locations Write [wm_service_location_write]	Provides access for creating a new service location address.	None

Field Service Territory Planning components

Several types of components are installed with the Field Service Territory Planning feature, including tables, role, script includes, and business rules.

Tables

Field Service Territory Planning adds the following tables.

Tables installed with the Field Service Territory Planning feature

Table	Description
Territory sn_tp_territory	Stores information about territories, such as the name of a territory.
Territory Condition sn_tp_territory_condition	Stores conditions added to a territory to filter the best matched territory for a work order or work order task.
Territory Geography sn_tp_territory_geography	Stores the geoJSON script information that is auto-generated when drawing a geography for the territories.
Territory Group sn_tp_territory_group	Stores information about the qualification, dispatch, and assignment groups assigned to a territory.
Territory Membership Override sn_tp_territory_membership_override	Store information whether the agent or crew is primary or secondary member of the territory.
Territory Model sn_tp_territory_model	Store information about the default territory model and its mapped territories and resources.
Territory Model Source	Store information about the source tables mapped to the territory model, such as wm_task and wm_order.

Tables installed with the Field Service Territory Planning feature (continued)

Table	Description
sn_tp_territory_model_source	
Territory Manager sn_tp_territory_manager	Stores information regarding the managers of the territory.

Roles

Field Service Territory Planning adds the following roles.

Roles installed with the Field Service Territory Planning feature

Roles	Description
Field Service Territory Edit Resource Allocation [sn_fsm_tp.fsm_territory_edit_resource_allocation]	Edit allocation of resources who are associated with the selected Field Service territory.
FSM Territory Planner [sn_fsm_tp.fsm_territory_planner]	Create new Field Service territories along with the ability to view the existing Field Service territories, manage resource allocation in territories, and others.
FSM Territory Read [sn_fsm_tp.fsm_territory_read]	View Field Service territory data.
Territory Admin [sn_tp.territory_admin]	Create new territory models, sources, and matching rules.
Territory Edit Resource Allocation [sn_tp.territory_edit_resource_allocation]	Edit allocation of resources who are associated with the selected territory.
Territory Geography Write [sn_tp.territory_geography_write]	Create, update, or delete the territory geography.
Territory Planner [sn_tp.territory_planner]	View territories, resource allocations, and others along with the ability to create new territories.
Territory Read [sn_tp.territory_read]	Viewing territory data.
Territory Resource Manager [sn_tp.territory_resource_manager]	Manage resources of territory where the logged in user has been assigned as resource manager
Territory Manager [sn_tp.territory_manager]	Manage territories and their related information. Additionally, inherits the role of territory resource manager.

Roles installed with the Field Service Territory Planning feature (continued)

Roles	Description
[sn_tp.territory_resource_manager]	
FSM Territory Manager [sn_fsm_tp.fsm_territory_manager] [sn_tp.territory_manager] [sn_tp.territory_resource_manager]	Manage Field Service territories and their related information. Additionally, inherits the role of territory resource manager.
FSM Territory Resource Manager [sn_fsm_tp.fsm_resource_manager] [sn_tp.territory_manager] [sn_tp.territory_resource_manager]	Manage Field Service resources of territory where the logged in user has been assigned as resource manager

Script Includes

Field Service Territory Planning adds the following script includes.

Script includes installed with the Field Service Territory Planning feature

Script include	Description
FieldServiceTerritoryPlanning	Contains the utility functions to provide data, such as territory details, assignment groups, or others to data brokers.
MatchTerritoryCondition	Contains the utility functions Filter territories for work order task based on the filtering conditions used by the territory planning matching rules.
TerritoryFilters	Contains methods for all reference qualifiers to filter territory based on the corresponding groups, agents, crews, and parent territory.
TerritoryMatchingDimensionLocation	Contains the utility functions to filter territories based on the task location to be used by the Matching Rule.
TerritoryPlanningHelpers	Contains helper methods for overall territory planning implementation.
TerritoryPlanningAJAX	Ajax class that provides helper functions to verify if the territory planning plugin is active, get default model, populate territory in the work order task form, and validates the assignment group selected for a work order task.

Business Rules

Field Service Territory Planning adds the following business rules.

Business rules for Field Service Territory Planning

Business Rule	Table	Description
Delete Agent Override	Territory Group [sn_tp_territory_group]	Deletes the modified membership record of an agent if the corresponding group is deleted from the territory.
Delete Crew Member Override	Territory Group [sn_tp_territory_group]	Deletes the modified membership record of a crew if the corresponding group is deleted from the territory.
Populate assignment groups	Territory Group [sn_tp_territory_group]	Auto-populates the corresponding assignment groups when adding a dispatch group to the territory.
Update Territory if not matched	Work Order Task [wm_task]	Validates and assigns the best territory for the selected assignment group if allow_assignment_override is selected.
Validate Qualification Group	Work Order [wm_order]	Checks if work order has a valid qualification group.
Allow only unique group-territory	Territory Group [sn_tp_territory_group]	Prevents adding a combination of duplicate groups that includes qualification, dispatcher, and assignment to a territory.
Allow only unique users	Territory Membership Override [sn_tp_territory_membership_override]	Prevents the selection of duplicate user for a territory in the territory membership override table.
Calculate geography bounding box	Territory Geography [sn_tp_territory_geography]	Calculates the maximum or minimum latitude and longitude value from defined territory geography GeoJSON.
Check and create crew membership	Work order task [wm_task]	Creates a new territory membership record for the dynamically assigned crew when saving the work order task, setting the 'From' and 'To' dates to match the 'Effective start' and 'Effective end' dates of the crew.

Business rules for Field Service Territory Planning (continued)

Business Rule	Table	Description
Membership date validations	Territory Membership Override [sn_tp_territory_membership_override]	Validates the dates entered in the From and To fields in the territory membership override table for a territory member.
Validate Color Field	Territory [sn_tp_territory]	Validates the hexadecimal code for the color of a territory.
Validate Parent	Territory [sn_tp_territory]	Validates the hierarchy of a parent territory.
Validate Source Table For Model	Territory Model Source [sn_tp_territory_model_source]	Prevents duplicate entries for a model and source table on the territory model source.
Validate Territory Condition	Territory Condition [sn_tp_territory_condition]	Prevents the creation of duplicate entries for territory conditions for a specific territory.
Validate territory geography name	Territory Geography [sn_tp_territory_geography]	Prevents the creation of duplicate entries for a new territory geography.
Validate Territory Model Name	Territory Model [sn_tp_territory_model]	Prevents the creation of duplicate entries for a new territory model.
Validate Territory Name	Territory [sn_tp_territory]	Prevents the creation of duplicate entries for a new territory.
Validate User and Territory	Territory Membership Override [sn_tp_territory_membership_override]	Ensures the user added to the territory membership override table is associated with the territory.

Properties

Field Service Territory Planning adds the following system properties.

Properties for Field Service Territory Planning

Property	Description
sn_fsm.use_query_rules	When the setting is "true", rules from the "sn_query_rule" table will control what Field Service Management-related data a user can read. This includes work orders (WO) and work order tasks (WOT). If set to "false", these records won't be filtered based on rules, and

Properties for Field Service Territory Planning (continued)

Property	Description
	<p>users can access them without rule-based restrictions.</p> <ul style="list-style-type: none"> • Type: Boolean • Default value: False • Location: All > sys_properties_list.do
sn_tp.max_coordinates_allowed	<p>Maximum number of coordinates allowed in GeoJSON Geography. This property is read-only and is non-editable.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 3250 • Location: All > Territory Planning > Properties
sn_tp.percentage_overlap	<p>Percentage value (ranging from 0 to 100) indicating the threshold for geographical overlap between territories. The default is set to 5%.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 5 • Location: All > Territory Planning > Properties

Query Rules

Field Service Territory Planning adds the following query rule. You can find the following query rule by clicking **All > sn_query_rule_list.do**

Query rule for Field Service Territory Planning

Query rule	Description
wm task - My assigned territory	<p>Allows admins to enable data security for agents, dispatchers, and qualifiers for work orders and work order tasks. This helps them to see the work orders and work order tasks created in their territories. Mark the <i>WO - My territory</i> and <i>WOT - MY Territory</i> tables as active.</p>

Scheduled Jobs

Field Service Territory Planning adds the following Schedule Optimization adds the following scheduled jobs. You can find the following scheduled jobs by clicking **All > sn_schedulejobs.do**

Scheduled jobs for Schedule Optimization

Scheduled job	Description
Territory Planning- Calculate Overlapping Territories	Calculates the overlaps for both agents and geographies.
Territory Planning- Calculate Overlapping Territories - Agent	Calculates the overlaps for agents. When executed, the scheduled job triggers events to calculate the overlap between two agents.
Territory Planning- Calculate Overlapping Territories - Geography	Calculates the overlaps for geographies. When executed, the scheduled job triggers events to calculate the overlap between two geographies.

Field Service Territory Planning console properties

Territory Planning console uses the following properties.

You can find these properties by clicking **Field Service > Territory Planning > Properties**.

Territory Planning properties

Properties	Definition
sn_fsm_tp.territory_membership_override_to_date	Determines agent's default till date field when added to territory using the Suggested agents tab. Agents are available in the territory till the specified date.
sn_fsm_tp.territory_max_zoom_level	Sets the maximum auto-zoom level for the map. The valid values are between 1–20. <ul style="list-style-type: none"> • Type: Integer • Default value: 12
sn_fsm_tp.overlay_markers_type	Determines to display the data such as agents and crews based on the view port or territory. <ul style="list-style-type: none"> • Type: Choice list • Default value: Viewport
sn_fsm_tp.territory_initial_zoom	Sets the initial zoom level for the map. <ul style="list-style-type: none"> • Type: Integer • Default value: 3
sn_fsm_tp.territory_transparency_level	Determines how opaque a newly created geographic area looks on the map. <ul style="list-style-type: none"> • Type: Integer • Default value: 1

Territory Planning properties (continued)

Properties	Definition
sn_fsm_tp.territory_map_type	<p>Uses different types of map views to visualize territories, such as roadmap, satellite, hybrid, and terrain.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: roadmap
sn_fsm_tp.max_territories_for_scheduling	<p>Determines the maximum number of territories that are ready for scheduling work order tasks.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100
Opacity level for heatmap on the map	<p>Determines the opacity of the heatmap. Valid values are between 0.0 and 1.0.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 0.6
Radius of influence of data points in heatmap	<p>Determines the radius that influence the data point in the heatmap.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 20 (pixels)

Advanced Part Sourcing components

Several types of components are installed with the Advanced Part Sourcing feature, including tables, scripts and business rules.

Plugin

The Field Service Advanced Parts Sourcing (com.snc.fsm_advanced_parts_sourcing) plugin must be activated. For more information on the steps to activate a plugin, see [Activate Field Service Management](#).

Business rules

Advanced Parts Sourcing adds the following business rules.

Business Rules

Business rule	Table	Description
Limit number of lines in a part request	<p>Part Request Line</p> <p>[sn_fsm_part_req_line]</p>	<p>Limits the number of part request lines in a part request. The limit is configured in the <i>sn_fsm_parts_src.Maximum parts in Part Request</i> property.</p>

Business Rules (continued)

Business rule	Table	Description
Manage requested quantity	Part Request Line [sn_fsm_part_req_line]	Updates the Requested_quantity field in the part requirement when a part request line changes its state.
Populate or clearout from_stockroom	Part Request Line [sn_fsm_part_req_line]	In the part request, if all part request lines have the same From stockroom field value, the part request record is populated for multi-sourcing. If the value in the From stockroom field is different, that value is cleared.
Restrict Duplicate Entry	Preferred Stockroom [sn_fsm_pref_stockroom]	Prevents the user from creating the duplicate record.
Set requested model same as required	Part Request Line [sn_fsm_part_req_line]	Sets the requested model same as required in case of non-substitute sourcing.
Update part request line	Requested Item Detail [sn_fsm_part_req_ritm_detail]	Creates a RITM record and updates the part request line state to Requested when agent submits the part request.
Update part request state	Part Request Line [sn_fsm_part_req_line]	Updates the part request state when the part request line state changes.
Validate asset quantity and sync assets	Requested Item Detail [sn_fsm_part_req_ritm_detail]	Validates that the number of assets selected matches the requested quantity. Also, synchronizes the values of selected asset IDs between the Requested Item Detail field and the Requested Item field of the RITM record.
Validate requested quantity	Part Request Line [sn_fsm_part_req_line]	Ensures that the requested part quantity is not more than difference between the required and reserved quantity. For example, Requested quantity <= (Required quantity - Reserved quantity).
Validate Maximum Part Search Radius	Work parameters [wm_agent_work_configuration]	Ensures that the value entered in the Validate Maximum Part Search Radius field is not less than zero.

Business Rules (continued)

Business rule	Table	Description
Default requested for when WOT empty	Part Requirement [sm_part_requirement]	Sets the Default requested field to the logged-in user when service order task is empty.
Set creation method field	Part Requirement [sm_part_requirement]	Sets the creation method field to user created when empty.

Script includes

Advanced Part Sourcing adds the following script includes.

Script Includes

Script include	Description
<i>FSMPartRequestUtil</i>	Contains utility methods to create, update, or delete a part request and part request line.
<i>FSMPartSourcingUtil</i>	Contains utility methods to submit a single or multiple parts request.
<i>FSMMultiPartsSourcingUtil</i>	Utilities file to identify stockrooms containing all the parts with the required quantity.
<i>PartRequestFilters</i>	Sets reference qualifier filters on part request fields.
<i>PartRequestLineFilters</i>	Sets reference qualifier filters on part request line fields.
<i>UserAjaxUtil</i>	Populates the requested quantity value on a part request line for a specified part requirement.

Tables

Advanced part sourcing adds the following tables.

Added Tables

Table	Description
Part Request [sn_fsm_part_request]	Stores the parts destination and requesting agent details.
Part Request Line [sn_fsm_part_req_line]	Stores part source and requirement details and associates them with the part request record.
Part request line To Transfer order line M2M [sn_fsm_part_req_line_tol_rel]	Stores the relationship between the part request lines that are in the Completed

Added Tables (continued)

Table	Description
	state with transfer order lines that are in the Delivered state.
Requested Item Detail sn_fsm_part_req_ritm_detail	Stores the sourcing details of the part request line after the user has submitted the request.
Preferred Stockroom sn_fsm_pref_stockroom	Stores the details of the preferred stockrooms that are associated with assignment groups.

Advanced Part Sourcing changes the following tables.

Updated Tables

Table	New columns added
Part requirements [sm_part_requirement]	Requested for, Requested quantity, Creation method, Include substitute
Work parameters [wm_agent_work_configuration]	Maximum part search radius
Geolocation History [geo_history]	Latest record

Properties

Advanced Part Sourcing adds the following properties.

Properties

Property	Description
Part Search Criteria	<p>Sets the criteria to search parts. The stockrooms that contains the parts with the requested quantity appear per the selected search criteria.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: No restrictions <ul style="list-style-type: none"> ○ No Restrictions: Search all warehouse stockrooms and the personal stockrooms of peer agents. ○ Only Assignment Group: Search all stockrooms of peer agents who are part of the assignment groups of the logged-in field service agent.

Properties (continued)

Property	Description
	<ul style="list-style-type: none"> ○ Only Preferred Stockrooms: Search all preferred stockrooms of all assignment groups irrespective of the radius mentioned in the logged-in agent's profile. • Location: Field Service > Administration > Properties
Use part request approvals	<p>Enables sending and receiving mobile notifications as Field Service agents request parts from peer agents.</p> <ul style="list-style-type: none"> • Type: Boolean • Default value: Yes • Location: Field Service > Administration > Properties
Create part requests for part requirement sourcing	<p>Creates a part request when a part is added to the part requirement.</p> <ul style="list-style-type: none"> • Type: Boolean • Default value: Yes • Location: Field Service > Administration > Properties

Template Management for Field Service components

Several types of components are installed with the Template Management for Field Service feature, including tables and business rules.

Tables

Template Management for Field Service adds the following tables.

Table installed with Template Management

Table	Description
[wm_m2m_template_attribute_map]	Entity to store the work order template attribute mapping.

Script Includes

Template Management for Field Service adds the following script includes.

Script includes installed with Template Management

Script include	Description
FSMTableMapSourceIdentifierDefaultImpl	Implementation class for <i>sn_fsm_adv_tmp.FSMTableMapSourceIdentifier</i> extension point, helps to identify the source of a work order.
FSMTableMapSourceIdentifierPlannedWorkMgmtImpl	Implementation class for <i>sn_fsm_adv_tmp.FSMTableMapSourceIdentifier</i> extension point, helps to determine if the source of a work order is using the planned maintenance template or planned work management template.
FSMTemplateMgmtDefaultImpl	Implementation class for <i>sn_fsm_adv_tmp.FSMTemplateMgmtExtPoint</i> extension point, enables the work order template to map information from a source table to the appropriate fields in a work order.
FSMTemplateMgmtHelper	Contains utility methods to identify the source record and then map information from the source table to the target table [wm_order].

Business rules

Template Management for Field Service adds the following business rules.

Business rules for Template Management

Business rule	Table	Description
Restrict table map for model	[wm_m2m_template_attribute_map]	Prevents the user from creating a duplicate record of table mapping to the work order template.

Planned Work Management Components

Several types of components are installed with Planned Work Management, including tables and business rules.

Tables

Planned Work Management adds the following tables.

Tables installed with Planned Work Management

Table	Description
Work Plan [wm_planned_work_plan]	Stores the entities filtered for the work plan.

Tables installed with Planned Work Management (continued)

Table	Description
Planned Work Schedule [wm_planned_work_schedule]	Stores the schedules configured for a work plan. A schedule can be duration, meter, condition, or script based.
Planned Work Schedule Template [wm_m2m_schedule_template]	Stores the list of work order templates applied to planned work schedules.
Planned Work Record [wm_m2m_work_plan_to_record]	Relates a work plan schedule to a record in the system (from a document ID). Also contains information about the last time or value the schedule ran for the record and the next time or value when the schedule will run.
Template Attribute Mapping [wm_m2m_template_attribute_map]	Stores the attribute mapping for a work order template.
Schedule Occurrence [wm_plan_work_schedule_occurrence]	Stores the occurrences of the work schedule.
Schedule Suppression [wm_m2m_schedule_suppression]	Stores the occurrences of suppressed work schedules.

Roles

Planned Work Management adds the following roles.

Roles in Planned Work Management

Roles	Description
Planned work admin [sn_fsm_planned_wm.planned_work_admin]	Create work plans, planned work schedules, link work order templates to the schedules, and generate work orders.

Script Includes

Planned Work Management adds the following script includes.

Script includes installed with Planned Work Management

Script Include	Description
PlannedWorkManagementExtensionPointImpl	Implements the <i>Global.PlannedMaintenanceExtensionPoint</i> extension point.
PlannedWorkMgmtAjaxUtil	Utility function for client scripts in planned work management.

Script includes installed with Planned Work Management (continued)

Script Include	Description
PlannedWorkMgmtAPIHelperUtil	Utilities for wrapper function to invoke global scoped APIs from planned work management scope.
FSMPWMUtil	Utility function for planned work management scoped application.
PWMForecastWUtil	Utility function to forecast work orders for the planned work.
PlannedMaintenanceExtensionPointImpl	Default implementation for planned maintenance application.
PlannedMaintenanceExtPointUtil	Utility in the planned maintenance application to retrieve extension points based on <code>sys_class_name</code> .
PlannedWorkManagementHistoryUtil	Utility in the planned work maintenance application to fetch the maintenance cycles history for an asset or inventory.
PlannedWorkManagementScheduleUtil	Maintains the processing logic for plan work record, schedule occurrences, work note comments etc.
PlannedWorkMangementPlanUtil	Utility methods related to work plan.
PlannedWorkManagementEffectivityUtil	Utility methods to determine and validate the effectivity of the schedule.
PlannedWorkManagementScheduleExeUtil	Acts as switch between the implementations of the <i>PlannedWorkManagementExeExtensionPoint</i> extension point based on order type. The default value of order type is work order.
PWMWorkOrderExeExtensionPointImpl	Implementation of the <i>PlannedWorkManagementExeExtensionPoint</i> extension point for the order type selected as work order.
PlannedWorkManagementConstants	Holds the constants for plan work management.
PWMScheduleSuppression	Maintains the processing logic of schedule suppression.
PWMScheduleOccurrence	Maintains the processing logic of schedule occurrence.
PWMScheduleOccurrenceDAO	Maintains the DAO methods of schedule occurrence.
PWMWorkScheduleDAO	Maintains the DAO methods for work schedule.
PWMPlanWorkRecordDAO	Maintains the DAO methods for plan record.

Business rules

Planned Work Management adds the following business rules.

Business rules installed with Planned Work Management

Business rule	Table	Description
cross scope record creation	Work Plan [wm_planned_work_plan]	Creates the cross scope access record on the table on which Maintenance plan is created and must be run.
cancel WO when plan record inactive	Planned Work Record [wm_m2m_work_plan_to_record]	Cancels the work order for a plan record when that plan record is inactivated. The Plan record gets deactivated when the asset record is modified so that it doesn't satisfies the filter condition at the plan level.
Planned work schedule to maintenance plan	Planned Work Schedule [wm_planned_work_schedule]	Restricts the creation of Planned work schedule for maintenance plan. Only allows when the Plan is of class Planned work.
Restrict model per schedule	Planned Work Schedule Template [wm_m2m_schedule_template]	Restricts the creation of duplicate model schedule in the table.
Restrict table map for model	Template Attribute Mapping [wm_m2m_template_attribute_map]	Restricts the user to have single table map per a work order template
Update m2m schedule records new fields	Planned Work Schedule [wm_planned_work_schedule]	Updates the schedule record and recalculates the next value or next run time when meter or duration fields change.
Validate plan effective start, end	Work Plan [wm_planned_work_plan]	Checks if the effective start and end date of the work plan are valid.
Work schedule template to maint schedule	Planned Work Schedule Template [wm_m2m_schedule_template]	Restricts the user to add maintenance schedule to planned work schedule template.
Update latest completion date in Work order	Work Order Task [wm_Task]	Updates the latest completion date in work order for grace time SLA.
Compare schedule template tasks	Schedule Suppression [wm_m2m_schedule_suppression]	

Business rules installed with Planned Work Management (continued)

Business rule	Table	Description
Validate cyclic dependency	Schedule Suppression [wm_m2m_schedule_suppression]	
Suppress SO by schedule suppression	Schedule Suppression [wm_m2m_schedule_suppression]	
Suppress SO by schedule	Schedule Occurrence [wm_plan_work_schedule_occurrence]	
Suppress SO by suppressBy schedule	Schedule Occurrence [wm_plan_work_schedule_occurrence]	
Cancel WO if SO inactive	Schedule Occurrence [wm_plan_work_schedule_occurrence]	
Check effective start of SO	Schedule Occurrence [wm_plan_work_schedule_occurrence]	
Change WO fields on SO field changes	Schedule Occurrence [wm_plan_work_schedule_occurrence]	

Planned Work Management system properties

Planned Work Management uses the following system properties, which are located in the System Properties [sys_properties] table.

Properties installed with Planned Work Management

Properties	Description
sn_fsm_planned_wm.consider_initial_meter_reading	Enables the system to take the initial meter reading into account when generating the first maintenance schedule. <ul style="list-style-type: none"> • Type: True/false • Default value: true
create_and_cancel_suppressed_workorders	Enables the system to log the work order if the schedule is suppressed. <ul style="list-style-type: none"> • Type: True/false • Default value: false
sn_fsm_planned_wm.valid_order_states_for_update	Holds a list of state values.

Properties installed with Planned Work Management (continued)

Properties	Description
	<p>When a schedule is updated, the other schedule occurrences are validated. If any occurrence has a work order with the state not in the list of state values in this property, the work order and the schedule occurrence is not cancelled.</p> <p>The schedule occurrence and its corresponding work order is deleted for any other scenarios.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: 1, 10, 15
sn_fsm_planned_wm.tolerance_span	<p>Maintains the configurable time window for applying schedule suppression. It offers the options of going forward, backward, or in both directions for selecting the span in which the suppression will be active.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: Both
sn_fsm_planned_wm.auto_task_generation_enabled	<p>Enables the system to automatically generate tasks for work orders upon their creation. If this property isn't enabled, the state of the work order remains in the draft state.</p> <ul style="list-style-type: none"> • Type: True/false • Default value: true
sn_fsm_planned_wm.supported_effectivity_calculation_type	<p>Enables the effective date of a work plan to be set in the past. Support for past dates is enabled when this property is set to advanced.</p> <ul style="list-style-type: none"> • Type: Choice list • Default value: Advanced

Workforce Optimization for Field Service components

Several types of components are installed with activation of the Workforce Optimization for Field Service (com.snc.app_fsm_wfo) plugin, including user roles, key performance indicators (KPIs), scheduled jobs, properties, and tables.

Workforce Optimization for Field Service

Roles

Role title [name]	Description	Contains roles
Workforce Optimization User [sn_wfo.user]	Grants read access to primary group and additional managers.	pa_analyst
Workforce Optimization Admin [sn_wfo_fsm.admin]	Grants administrative rights to create, read, update, and delete (CRUD) additional managers.	<ul style="list-style-type: none"> agent_schedule_admin sn_wfo_fsm.manager
Workforce Optimization FSM Manager [sn_wfo_fsm.manager]	Grants rights to create, read, or update, coaching, scheduling, teams, or channel management applications.	<ul style="list-style-type: none"> skill_manager wm_manager sn_wfo_cfg_ws.manager sn_shift_planning.admin sn_customerservice_manager sn_wfo.user sn_channel_mgmt.user sn_coaching.coach sn_sre.user sn_team_perf.team_performance_user
Workforce Optimization FSM Admin [sn_wfo_fsm.admin]	Grants administrative rights to create, read, update, and delete (CRUD) coaching, scheduling, teams, or channel management applications.	<ul style="list-style-type: none"> sn_team_perf.team_performance_admin sn_coaching.admin skill_model_admin sn_channel_mgmt.admin sn_csm_wfo_workspa.manager sn_mgr_workspace.admin sn_sre.admin

Scheduling

Roles

Role title [name]	Description	Contains roles
Shift Planning User [sn_shift_planning.user]	Grants read access for scheduling including the ability to view schedules and shifts.	

Roles (continued)

Role title [name]	Description	Contains roles
Shift Planning Agent [sn_shift_planning.agent]	Grants agents access to their calendar and request shift swap or time-off.	sn_shift_planning.user
Shift Planning Admin [sn_shift_planning.admin]	Grants administrative access to create, read, update, and delete (CRUD) schedules and work shifts.	<ul style="list-style-type: none"> • sn_shift_planning.approver • sn_shift_planning.user • sn_shift_planning.agent

Tables

Table	Description
sn_shift_planning_time_worked_summary	Stores the time worked summary of an agent.
sn_shift_planning_agent_time_work	Stores the agent's time worked, such as clock-in and clock-out times. If an agent logs in early or logs out late, then the shift start and shift end times are stored in place of the clock-in and clock-out times.
sn_shift_planning_agent_time_attendance	Stores the clock-in and clock-out times of agents. Data is retrieved when an agent logs in, logs out, or changes the Presence state.

Properties

Property	Description
sn_shift_planning.number_of_days_to_cache	<p>Number of days to cache agent schedules.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 5
sn_shift_planning.enable_schedule_adherence	<p>Calculates and displays schedule adherence information for your agents.</p> <ul style="list-style-type: none"> • Type: Boolean • Default value: True
sn_shift_planning.early_clockin_threshold	<p>Threshold settings indicate how many minutes early or late an agent can clock-in or clock-out from the scheduled time without being considered non-adherent. This is the acceptable duration of time flexibility for an agent to start work before the scheduled start time.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 60 min

Properties (continued)

Property	Description
sn_shift_planning.adherence_threshold	<p>Sets the percentage for a threshold in adherence. The agents who do not qualify as above the defined threshold value (70%) are considered non-adherent agents.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 70%
sn_shift_planning.conformance_lower_threshold	<p>Sets the lower threshold percentage for flexibility in conformance. The agents who do not qualify for the defined lower and upper conformance threshold values (80-120) are considered non-conformant agents.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 80%
sn_shift_planning.conformance_upper_threshold	<p>Sets the upper threshold percentage for flexibility in conformance. The agents who do not qualify for the defined lower and upper conformance threshold values (80-120) are considered non-conformant agents.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 120%
sn_shift_planning.auto_clockout_threshold	<p>Threshold time for the system to wait and generate automatic clock-out events when agents forget to clock-out. For example, if the threshold is set to 60 minutes and an agent's planned work shift is 8 a.m. to 5 p.m. but the agent fails to clock out at 5 p.m., the system waits for 60 minutes and then generates an automatic clock-out event.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 60 min
sn_fsm_disp_wrkspc.agent_shift_sched_color	<p>Enables the default colors configured for each event type to display the same event spans with same color in Dispatcher Workspace.</p> <p>Note: You must select a dynamic value to display the selected color of workforce optimization events in Dispatcher Workspace.</p> <ul style="list-style-type: none"> • Type: String • Default value: static

Script Includes

Script Include	Description
Notify User Clock In	Counts the clock-in events whenever there is a change in agent's Presence state.
Notify User Clock Out	Counts the clock-out events whenever there is a change in agent's Presence state.

Scheduled Jobs

Name	Description
Shift Planning - Delete All Agent Schedules Cache	<p>Deletes cache from the <code>sn_shift_planning_agent_availability</code> table.</p> <ul style="list-style-type: none"> • Runs automatically everyday at 2:30 a.m. • Run this job on demand when you import data.
Clock-out event generation (For scenarios where the clock-out event does not get triggered)	<p>Generates clock-out events every 4 hours if agents haven't clocked out.</p> <p>Note:</p> <p>For example, say an agent's work shift times are from 8 a.m. to 5 p.m. and the <code>sn_shift_planning.auto_clockout_threshold</code> property value is set to 60 minutes. If the agent clocks in and fails to clock out, the scheduled job waits till 6 p.m. (5 p.m.+60 minutes) and if there is no clock out till 6 p.m., the system generates a clock-out event with the agent's shift end time.</p>
Populate Agent Time Worked Summary	Runs daily to calculate the time worked, adherence, and conformance based on an agent's planned and actual work shift times for the previous day. The values are stored in the <code>[sn_shift_planning_time_worked_summary]</code> table.
Update Wrapper End Time for Actual Work Events	Runs daily to make sure the actual work wrapper end-time is equal to last clock-out time.
[Schedule Adherence] Daily Data Collection	Runs the job daily and collects data for all teams indicators.
[Schedule Adherence] Historic Data Collection	Runs the job and collects historic data for all teams indicators.
[Schedule Adherence] Weekly Data Collection	Runs the job weekly and collects data for all indicators in Manager Workspace.

Teams

Roles

Role title [name]	Description	Contains roles
Teams User [sn_team_perf.team_performance_user]	Grants access to read KPI tables.	<ul style="list-style-type: none"> • sn_wfo.user • pa_analyst
Teams Admin [sn_team_perf.team_performance_admin]	Grants access to create and configure KPIs, KPI groups, and assignment groups in the Teams module.	<ul style="list-style-type: none"> • sn_wfo.admin • sn_team_perf.team_performance_user

Properties

Property	Description
sn_team_perf.kpi_group.max_parent_kpis	The maximum number of parent indicators that you can add to one KPI group. <ul style="list-style-type: none"> • Type: Integer • Default value: 5
sn_team_perf.kpi_group.max_supporting_kpis	The maximum number of supporting KPIs you can define for a parent KPI. <ul style="list-style-type: none"> • Type: Integer • Default value: 10
sn_team_perf.ws.max_assignment_groups	The maximum number of assignment groups prioritized by order number to display on the Teams application in Manager Workspace. <ul style="list-style-type: none"> • Type: Integer • Default value: 15
sn_team_perf.default_date_range	The default date range set in the date range picker. <ul style="list-style-type: none"> • Type: Integer • Default value: 30

Performance Analytics Indicators

Indicator Name	Description
# of tasks resolved on first contact	Number of tasks resolved on first contact.
# of P1 tasks resolved on first contact	Number of P1 tasks resolved on first contact.
# of P2 tasks resolved on first contact	Number of P2 tasks resolved on first contact.
# of P3 tasks resolved on first contact	Number of P3 tasks resolved on first contact.

Performance Analytics Indicators (continued)

Indicator Name	Description
# of P4 tasks resolved on first contact	Number of P4 tasks resolved on first contact.
MTTR for Tasks	Mean time to resolve the tasks.
MTTR for P1 Tasks	Mean time to resolve the P1 tasks.
MTTR for P2 Tasks	Mean time to resolve P2 tasks.
MTTR for P3 Tasks	Mean time to resolve the P3 tasks.
MTTR for P4 Tasks	Mean time to resolve P4 tasks.
CSAT for Tasks	Customer satisfaction score for tasks.
CSAT for P1 Tasks	Customer satisfaction score for P1 tasks.
CSAT for P2 Tasks	Customer satisfaction score for P2 tasks.
CSAT for P3 tasks	Customer satisfaction score for P3 tasks.
CSAT for P4 tasks	Customer satisfaction score for P4 tasks.
Number of Closed tasks	Number of closed tasks.
Number of Closed P1 tasks	Number of closed P1 tasks.
Number of Closed P2 tasks	Number of closed P2 tasks.
Number of Closed P3 tasks	Number of closed P3 tasks.
Number of Closed P4 tasks	Number of closed P4 tasks;
Average Wait Time for Chats	Average waiting time for chats.
Number of Chats Handled	Number of chats handled.
Average Handling Time for Chats	Average handling time for chats.
Number of Abandoned Chats	Number of abandoned chats.
Number of Incoming tasks	Number of incoming tasks.
Schedule Adherence	Agents schedule adherence percentage.
Schedule Conformance	Agents schedule adherence percentage.
Summed duration of Time Worked	Agents total duration of time worked.
Summed Duration of Planned Time	Agents total duration of planned time.
Summed duration of Time Not Worked	Agents total duration of time not worked.
Summed duration of Available Non Planned Time	Agents total duration of available non planned time.

Coaching

Roles

Role title [name]	Description	Contains roles
Coaching Admin [sn_coaching.admin]	Grants administrative rights to create, read, update, and delete (CRUD) coaching opportunities, assessments, training, and skills.	<ul style="list-style-type: none"> • sn_coaching.coach • sn_lc.learning_admin
Coaching Coach [sn_coaching.coach]	Grants administrative rights to create, read, or update coaching opportunities, assessments, training, and skills.	<ul style="list-style-type: none"> • sn_coaching.trainee • pa_viewer • sn_lc.catalog_manager
Coaching Trainee [sn_coaching.trainee]	Grants access to add training, assessments, and skill records.	<ul style="list-style-type: none"> • skill_user • pa_viewer • survey_reader

i Important:

This feature is available with the Workforce Optimization for Field Service (com.snc.app_fsm_wfo) from the ServiceNow Store. To enable this feature, see [Activate Workforce Optimization for Field Service](#).

Business rule

Business rule	Table	Description
Calculate coaching survey score	Assessment Instance [asmt_assessment_instance]	Sets the feedback rating based on the survey score.

Coaching opportunities

Coaching Opportunity Name	Description	Table
Coaching Opportunity for SLA Breach	Coaching opportunity for agents who worked on the critical and high priority tasks that breached SLA.	Task SLA [task_sla]
Coaching Opportunity for low CSAT	Coaching opportunity for agents who worked on tasks that has a customer satisfaction score less than 4.	Task Report [sn_customerservice_task_report]
Coaching Opportunity for skills award verification	Coaching opportunity for verification of skills awarded to agents.	Task [sn_customerservice_task]
Knowledge Management Process: Coaching on	Coaching opportunity for agents who need to improve the quality of	Task [sn_customerservice_task]

Coaching opportunities (continued)

Coaching Opportunity Name	Description	Table
quality of knowledge articles	a knowledge article by reviewing the assessment.	
Coaching Opportunity for high TTR	Coaching opportunity for agents who worked on a task that had a time to resolution of more than 3 days.	task Report [sn_customerservice_task_report]
Interaction: Coaching Opportunity for Handling Time	Coaching opportunity for agents who had a handle time of more than 10 minutes on an interaction.	Interaction [interaction]

Note:

You can customize the coaching opportunities for low CSAT, high TTR, SLA breach, and handling time based on your business needs.

Important:

This feature is available with the Workforce Optimization for Field Service (com.snc.app_fsm_wfo) from the ServiceNow Store. To enable this feature, see [Activate Workforce Optimization for Field Service](#).

Coaching Surveys

Name	Description
Chat Quality Survey	Survey associated with the Chat Interaction coaching opportunity. The coach assesses the agent using this survey after the agent completes a chat interaction.
Task Quality Survey	Survey associated with the Task Interaction coaching opportunity. The coach assesses the agent using this survey after the agent completes a task interaction.

Properties

Property	Description
sn_coaching.learning_default_duration	Number of days to read a knowledge article or complete training. The admin (sn_wfo.admin) sets the number of days for the trainee to complete reading an article or complete training. The number of days is converted to the due date for the trainee to complete the training. It is calculated from the current date, taking the trainee's time zone into consideration. <ul style="list-style-type: none"> Type: Integer Default value: 5
sn_coaching.exclude_weekends_on_training_due_date	Excludes weekends when the due date is set for trainees to complete training.

Properties (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: true false • Default value: true

Coaching with Learning

i Important:

This feature is available with the Workforce Optimization for Field Service (com.snc.app_fsm_wfo) from the ServiceNow Store. To enable this feature, see [Activate Workforce Optimization for Field Service](#).

Roles

Role title [name]	Description	Contains Roles
Learning admin [sn_lc.learning_admin]	Grants administrative rights to create, read, update, and delete (CRUD) catalog, learning content, roles, and configure learning source.	<ul style="list-style-type: none"> • sn_lc.catalog_manager • sn_hr.integr_fw.admin
Learning catalog manager [sn_lc.catalog_manager]	Grants administrative rights to create, read, or update learning catalogs.	<ul style="list-style-type: none"> • sn_lc.task_creator • sn_lc.content_writer
Learning catalog group manager [sn_lc.catalog_group_manager]	Grants administrative rights to create, read, or update learning catalogs based on groups.	<ul style="list-style-type: none"> • sn_lc.task_creator • sn_lc.content_writer
Learning content creator [sn_lc.content_creator]	Grants administrative rights to create, read, or update internal courses.	sn_lc.content_reader
Learning content writer [sn_lc.content_writer]	Grants read or write access for learning courses.	sn_lc.content_creator
Learning content reader [sn_lc.content_reader]	Grants read access for learning courses.	none
Learning content advisor [sn_lc.learning_advisor]	Can assign learning tasks.	none
Learning task creator [sn_lc.task_creator]	Grants read or write access for learning tasks.	none

Tables

Table	Description
Learning External Content [sn_lc_external_content]	Stores details of external course items pulled from third-party systems.

Tables (continued)

Table	Description
Learning User Course Activity [sn_lc_user_course_activity]	Stores details of learning course activities such as the user to whom the course is assigned, status, due date, and name of the learning course.
Learning Content [sn_lc_content]	Stores details of internal learning content such as knowledge articles or videos that are created in ServiceNow.
Learning Course Item [sn_lc_course_item]	Stores details of learning course items such as the source to which the learning course belongs.
Learning Catalog [sn_lc_catalog]	Stores details of learning catalog items with its course items.
Learning Task [sn_lc_learning_task]	Stores details of learning tasks, such as the user to whom the learning task is assigned and the date by which the learning task must be completed.
Learning System Configuration [sn_lc_learning_system_configuration]	Stores configuration parameters of third-party learning management system sources.

Properties

Property	Description
glide.ui.sn_coaching_assigned_to	<p>Enables coaching assigned activities.</p> <ul style="list-style-type: none"> • Type: string • Default value: assigned_to,cmdb_ci,state,impact,priority,opened_by,work_notes,comments,*Attachments
sn_coaching.recommended_learning_tasks	<p>Coaching recommended trainings is being deprecated and replaced with learning tasks and course items from Coaching With Learning.</p> <ul style="list-style-type: none"> • Type: string • Default value: true
sn_coach.Irn.exclude_weekends	<p>Enables property to exclude weekends while setting the due date for learning tasks.</p> <ul style="list-style-type: none"> • Type: true false • Default value: true
sn_coach_Irn.learning_data	<p>Displays properties for the now-list-menu component on the Learning Tasks tab, coaching module.</p>

Properties (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: string • Default value: script for data array
com.glide.transform.json.partial-length	<p>Transforms JSON objects to internal objects and sets the word limit for records fetched through an API call.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 16384 <p>Note:</p> <p>You must add this system property to set the desired value. For more information, see Add this system property.</p> <p>When you synchronize third-party learning content with your ServiceNow instance, if the word count of the content being pulled into your instance exceeds the value set for this property, the synchronization will fail. For more information, see Integrate Coaching With Learning with third-party learning management systems.</p>
com.snc.process_flow.serialization_size_limit	<p>Specify the serialized value size limit for runtime values in each step in the flow execution details. To prevent truncation, set the value to an integer equal to or less than zero.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 16384 <p>Note:</p> <p>When you synchronize third-party learning content with your ServiceNow instance, if the word count of the content being pulled into your instance exceeds the value set for this property, the synchronization will fail. For more information, see synchronize.</p>

Important: This feature is available with the Workforce Optimization for Field Service (com.snc.app_fsm_wfo) from the ServiceNow Store. To enable this feature, see [Activate Workforce Optimization for Field Service](#).

Skill Recommendation

Roles

Role title [name]	Description	Contains roles
Skill Recommendation User [sn_sre.user]	Grants rights to view skill recommendation tables.	wfo.user

Roles (continued)

Role title [name]	Description	Contains roles
Skill Recommendation Admin [sn_sre.admin]	Grants administrative rights to edit the properties for skill recommendation.	<ul style="list-style-type: none"> • wfo.admin • sn_sre.user

Navigate to **Skill Recommendation > Configuration** to configure these properties.

Properties

Property	Description
Enable skill recommendation. sn_sre.enable_skill_recommendation	<p>Enable this property to start recommending skills for agents.</p> <ul style="list-style-type: none"> • Type: true false • Default value: true
Maximum number of skills to predict based on supervised learning. sn_sre.max_supervised_skills	<p>Using supervised learning, the maximum number of skills to predict for each incident ordered by confidence of prediction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 3
Maximum number of skills to predict based on supervised learning. sn_sre.max_unsupervised_skills	<p>Using unsupervised learning, the maximum number of skills to predict for each incident ordered by confidence of prediction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 3
Number of times Predictive Intelligence must predict the same skill for an agent before recommending it for the agent. sn_sre.user_predicted_skill_threshold	<p>The number of times Predictive Intelligence must predict the same skill for an agent before recommending the skill for the agent.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 20
Similarity solution definition to recommend skills from similar tasks. sn_customerservice.unsupervised_solution_definition_for_tasks	<p>Name of the Predictive Intelligence solution definition used for predicting skills to resolve tasks using unsupervised learning. If you have created your own solution definition, you can replace the default one with the one you have created.</p> <ul style="list-style-type: none"> • Type: String • Default value: ml_sn_sn_customerservice_global_recommend_similar_

Properties (continued)

Property	Description
Similarity solution definition to recommend skills for tasks. sn_customerservice.supervised_solution_definition_for_tasks	Name of the Predictive Intelligence solution definition used for predicting skills to resolve tasks using supervised learning. If you have created your own solution definition, you can replace the default one with the one you have created. <ul style="list-style-type: none"> • Type: String • Default value: ml_sn_sn_customerservice_global_recommend_skills_fr

Scheduled job

Scheduled job	Description
Start skill prediction	Runs the job every day at 1 a.m. on all incidents that were closed the previous day. Recommends the skills necessary to close the incidents to resolve similar open incidents.

Tables

Table	Description
User Predicted Skill [sn_sre_user_predicted_skill]	<ul style="list-style-type: none"> • Stores how many times a skill has been predicted for the user. • Skills not recommended in the last 60 days are automatically deleted from this table.
Task Predicted Skill [sn_sre_task_predicted_skill]	<ul style="list-style-type: none"> • Stores the skills predicted to resolve each type of incident. • Records created over 60 days ago are automatically deleted from this table.

Field Service Task Bundling components

Several types of components are installed with the activation of the Field Service Task Bundling feature including business rules, task filters, and task grouping rules.

Business Rules

Field Service Task Bundling adds the following business rules.

Business rules for Task Bundling

Business Rule	Table	Description
Bundle Actual Time Field Update	Work Order Task [wm_task]	Updates the Actual travel start and Actual onsite arrival fields of the bundle.

Business rules for Task Bundling (continued)

Business Rule	Table	Description
Bundle Assignment	Work Order Task [wm_task]	Updates bundled subtask assignment.
Bundle Assignment Before	Work Order Task [wm_task]	Prevents bundling when bundle Window start is before the subtask Window start . Prevents bundling when bundle Expected Start is before bundle Window start .
Bundle Change After	Work Order Task [wm_task]	Validates and updates bundles based on bundled subtasks, or validates and updates unbundled subtasks based on their previous bundle.
Bundle Change Before	Work Order Task [wm_task]	Validates and updates bundles when subtasks are added to or removed from the bundle.
Bundle Scheduled Start Change	Work Order Task [wm_task]	Initiates the scheduling of bundled subtasks.
Bundle Siblings Prevention	Work Order Task [wm_task]	Prevents duplicate task bundles from being created for the same work order.
Bundle state change	Work Order Task [wm_task]	Updates the bundle state.
Bundle subtask assignment changes	Work Order Task [wm_task]	Prevents bundled subtask assignment based on subtask state or current agent assignment.
Bundle Subtasks Changes Info Message	Work Order Task [wm_task]	Informs the user when no changes have occurred.
Bundle Task SubState Update	Work Order Task [wm_task]	Updates the substate of the bundle based on the bundle state and action taken by the agent.
Cancel Task Bundle	Work Order Task [wm_task]	Unbundles all subtasks in a bundle.
Confirm Assignment on Bundle Task	Work Order Task [wm_task]	Updates and syncs subtask state to the bundle state upon assignment by a dispatcher.
Enforce bundle mandatory fields	Task Grouping Qualifier [sn_task_grouping_qualifier]	Prevents dynamic bundling when mandatory fields are empty.
Grouping rule info message for wm_task	Task Grouping Rule [sn_task_grouping_rule]	

Business rules for Task Bundling (continued)

Business Rule	Table	Description
Lock and Unlock Subtasks	Work Order Task [wm_task]	Updates subtasks schedule lock state to match bundle when bundle schedule lock is changed.
On bundle state change from Draft to PD	Work Order Task [wm_task]	Updates subtasks state to match bundle state when bundle is set to Pending Dispatch . Validates subtask state and provides error message when a subtask failed to update.
On change bundle Assignment Group	Work Order Task [wm_task]	Updates subtasks assignment group to match bundle when bundle assignment group is changed.
Prevent bundle location changes	Work Order Task [wm_task]	Validates that the bundle location equals the location of the first subtask in the bundle. Prevents bundle location from being different from the location of the first subtask in the bundle.
Prevent duplicate/multiple qualifiers	Task Grouping Qualifier [sn_task_grouping_qualifier]	Prevents bundling when both or neither Assignment group or Territory qualifiers are active. Prevents bundling when identical qualifier exists.
Prevent schedule lock update on subtasks	Work Order Task [wm_task]	Prevents subtask schedule lock from being different from parent bundle schedule lock.
Push initial subtask location to bundle	Work Order Task [wm_task]	Updates bundle location to the location of the first subtask in the bundle.
Remove subtasks they are in diff state	Work Order Task [wm_task]	Removes subtasks from bundle when subtask state is different from the bundle state.
Reschedule after Subtask Order Change	Work Order Task [wm_task]	Reschedules the bundle when order of subtasks is changed.
Set name for territory	Task Grouping Qualifier [sn_task_grouping_qualifier]	Sets the Name value of the Territory qualifier.
Subtask Order Validation	Work Order Task [wm_task]	Validates that the Order value of subtasks are unique and not empty.
SubTask Schedule State Change	Work Order Task [wm_task]	Updates the bundle and subtask states from Assigned

Business rules for Task Bundling (continued)

Business Rule	Table	Description
		to Scheduled when a dispatcher schedules the bundle.
Subtasks field change - not supported	Work Order Task [wm_task]	Prevents subtask estimated work duration from being manually updated based on subtask state.
Sync bundle with subtasks	Work Order Task [wm_task]	Syncs bundle with subtask values.
Sync Bundle Work Duration to subtasks	Work Order Task [wm_task]	Syncs bundle duration to the total estimated work duration of its subtasks.
Validate Min & Max Tasks	Task Grouping Policy [sn_task_grouping_policy]	Validates that the number of subtasks in a bundle created from a policy falls between the policy minimum and maximum range.
Work duration change on bundle	Work Order Task [wm_task]	Validates that the subtask estimated work duration is less than the subtask duration of the bundle.

Task Grouping Policies

Field Service Task Bundling adds the following task grouping policy.

Grouping policies for Task Bundling

Task Grouping Policy	Description
Default Policy	<ul style="list-style-type: none"> • Minimum records: 2 • Maximum records: 10 • ○ WOT's in Same Location Within Next 30 Days • ○ WOT's In Same Territory With Required Skill Set Within Next 30 Days • ○ WOT's In Same Territory Within Next 30 Days • ○ WOT's That Need Same Asset Within Next 30 Days • ○ WOT's With Similar Required Parts • ○ WOT's With Similar Task Skills

Task Grouping Rules

Field Service Task Bundling adds the following task grouping rules.

Grouping rules for Task Bundling

Task Grouping Rule	Policy	Description
WOT's in Same Location Within Next 30 Days	Default Policy	Bundles tasks that are in the same Location within the next 30 days.
WOT's In Same Territory With Required Skill Set Within Next 30 Days	Default Policy	Bundles tasks that are in the same Territory and require specific skills within the next 30 days.
WOT's In Same Territory Within Next 30 Days	Default Policy	Bundles tasks that are in the same Territory within the next 30 days.
WOT's That Need Same Asset Within Next 30 Days	Default Policy	Bundles tasks that require the same Asset within the next 30 days.
WOT's With Similar Required Parts	Default Policy	Bundles tasks that require similar parts.
WOT's With Similar Task Skills	Default Policy	Bundles tasks that require similar skills.

Task Filters

Field Service Task Bundling adds the following task filters, task filter criteria, to Dynamic Scheduling.

Configuration Task Filters

Task Filter	Conditions	Criterion	Function
Assignment : Assign Pending Dispatch Task Bundle	<ul style="list-style-type: none"> • IsBundle = true • State = Pending Dispatch • Substate is not auto-assigned or empty. 	<ul style="list-style-type: none"> • Bundle: Ignore Rejected Technician • Bundle: Matching Skills for Dynamic Scheduling • Current Distance From Task 	Assigns bundles that are in the Pending Dispatch state.

Configuration Task Filters

(continued)

Task Filter	Conditions	Criterion	Function
Bundle Reassignment : reassign unassigned task bundles	<ul style="list-style-type: none"> • IsBundle = true • Schedule lock = false • State is one of scheduled, assigned, accepted 	<ul style="list-style-type: none"> • Bundle: Ignore Rejected Technician • Bundle: Matching Skills for Dynamic Scheduling • Current Distance From Task 	Reassigns unassigned task bundles.

Task Filter Criteria

Criterion	Function
Bundle: Ignore Rejected Technician	Ignores agents who have rejected a task from the bundle previously. Prevents bundles with rejected tasks from being assigned to the rejecting agent.
Bundle: Matching Skills For Dynamic Scheduling	Matches bundles that have skill requirements with agents who have those skills.
Bundle: Matching Mandatory Parts for Dynamic Scheduling	Matches bundles that have part requirements with agents who have those parts.

Field Service Task Bundling fields

The fields that are included in the details section of work order task bundles.

Work Order Task form

Field	Description
Number	Auto-generated identification number for the bundle.
Parent	Work order this bundle is assigned to.
Asset	Parts required to execute the bundle.
Location	Geographical area where the work must be done. The location of the subtask in the #1 order position determines the bundle's location. If you want to update the location of a bundle, change the location of the subtask in the first position rather than updating the location on the bundle.
Template	Template for creating this work order task bundle.
Skills	Agent abilities necessary to execute the bundle.
Under warranty	Indicator of an existing warranty for one or more configuration items that are related to tasks in the bundle.
State	Current state of the bundle. The field is automatically set as the agent completes the work for each consecutive state.

Work Order Task form (continued)

Field	Description
Dispatch Group	Group that can select an agent to complete the bundle.
Assignment group	Group that contains the individual agent who will complete the bundle. By default, this field shows the recommended assignment groups based on the location, asset, and skills for the bundle. If the field is empty, the system searches for the group covering the territory that includes the location of the bundle.
Assigned to	Individual agent to complete the bundle.
Work Type	Type of work to be performed to complete the bundle. The following choices are available: <ul style="list-style-type: none"> • Break Fix • Install • Planned Maintenance
Allow assignment override	Option to show all the groups in the Assignment group field that belong to the selected territory and dispatch group regardless of the location, assets, and skills required for the tasks in the bundle.
Schedule lock	Locks the bundle from being scheduled by any scheduling mechanism. Locked bundles are excluded from automated scheduling mechanisms such as dynamic scheduling or intelligent task recommendations. Dispatchers can manually assign the bundle to an agent. <p>Note: Subtasks of a bundle will reflect the same lock value as the parent bundle.</p>
Short Description	Brief description of the bundle.
Description	Technical description of the work to be performed containing as much detail about the problem as possible to avoid additional communication with the customer in later stages of the work order life cycle.
Work notes	Information about the bundle as it progresses through each state. Work notes aren't visible to customers.
Comments	Any additional information about the task as it progresses. Comments are visible to customers.
Planned	
Window start	Start of the time window that is established for this bundle.
Window end	End of the time window established for this bundle. The elapsed time of the window can't exceed the value in the Estimated work duration field.
Scheduled travel start	Date and time when the agent expects to travel to the location of the first task in the bundle. The travel start time is automatically set to one hour from the current time.
Scheduled start	Date and time when the work on the bundle is expected to begin.

Work Order Task form (continued)

Field	Description
	This field becomes required after the bundle reaches the Assigned state.
Estimated end	Date when the work on the bundle ends. The date is automatically calculated based on the Scheduled start and Estimated work duration field values.
Is fixed window	Option to indicate that the service window is fixed. A fixed service window can't be shortened, extended, or rescheduled to accommodate other tasks in an agent's schedule. If this option isn't selected, the service window is considered flexible and can be rescheduled.
Access hours	Option to schedule work order tasks during the explicitly defined access hours.
Acceptance duration	Task acceptance duration in number of days and time.
Estimated travel duration	Estimated travel time to the work site. The duration is updated when you assign the bundle to an agent or change the start date and time of the bundle.
Estimated work duration	Estimated amount of work time. The duration can't exceed the total time of the window.
Estimated travel home time	Estimated time it takes to get from the location of the last subtask in a bundle to the agent's home.
Actual	
Actual travel start	Date and time when agent traveled to the site.
Actual work start	Time when work began.
Actual work end	Time when work on the bundle was completed.
Actual travel duration	Amount of time spent traveling to the site.
Actual duration	Total amount of time spent completing the bundle. This value is automatically calculated based on the Actual work start and Actual work end field values.
Actual work duration	Total amount of time spent on the bundle after the agent starts the work and before the agent closes the work on the last subtask. This amount excludes the time paused on the work.

Field Service Quality Management components

Several types of components are installed with the activation of the Field Service Quality Management feature including tables, substates, and roles.

Tables

Field Service Quality Management adds the following tables:

Tables installed with Field Service Quality Management

Table	Description
Review task [review_task]	This table keeps track of the review process.

Substates

Field Service Quality Management adds the following substates:

Tables installed with Field Service Quality Management

Table	Description
Pending review	Substate for tasks that need to be reviewed by the reviewer.
Needs information	Substate for tasks that need more information from the agent.

Roles

Field Service Quality Management adds the following roles:

Roles installed with Field Service Quality Management

Role	Description
sn_fsm_quality.wm_quality_agent	Reviewer role that can review work order tasks.

Field Service Agent Efficiency components

Several types of components are installed with the Field Service Agent Efficiency feature, including tables, roles, script includes, and business rules.

Tables

Field Service Agent Efficiency adds the tables listed in the following table.

Tables installed with Field Service Agent Efficiency

Table	Description
Agent efficiency determination rule sn_agent_effcy_det_rule	Stores information about determination rules and conditions to define the Agent Efficiency criteria for work order tasks.
Agent efficiency criteria sn_agent_effcy_criteria	Stores information about Agent Efficiency criteria and the table to which they are applicable.
Agent efficiency value sn_agent_effcy_value	Stores information about Agent Efficiency for various criteria.

Roles

Field Service Agent Efficiency adds the roles listed in the following table.

Roles installed with Field Service Agent Efficiency

Role	Description
Agent Efficiency Manager sn_agent_efficiency_manager	Define and update Agent Efficiency values for agents.
Agent Efficiency Read sn_agent_efficiency_read	View efficiency determination rules, Agent Efficiency criteria, and Agent Efficiency values.
Agent Efficiency Admin sn_agent_efficiency_admin	Create and update Agent Efficiency criteria, efficiency determination rules, and Agent Efficiency values.

Script Includes

Field Service Agent Efficiency adds the script includes listed in the following table.

Script includes installed with Field Service Agent Efficiency

Script include	Description
<i>FSMAgentEfficiencyCalculatorImpl</i>	Field Service Agent Efficiency calculator implementation for <i>FSMAgentEfficiencyCalculatorExtPnt</i> .
<i>FSMAgentEfficiencyCalculatorImplSN</i>	Specifies whether Field Service Agent Efficiency has been activated, and calculates and updates work duration based on the Agent Efficiency value.
<i>FSMAgentEfficiencyConstants</i>	Holds constants for Field Service Agent Efficiency.
<i>FSMAgentEfficiencyUtil</i>	Contains a customized script to fetch Field Service Agent Efficiency criteria and values.
<i>FSMAgentEfficiencyUtilSNC</i>	Contains default methods to fetch Field Service Agent Efficiency criteria and values.
<i>FSMAgentEfficiencyValidatorImpl</i>	Validates Field Service Agent Efficiency determination rules, criteria, and values.
<i>MatchingDimensionAgentEfficiency</i>	Contains a custom script to rank agents by their efficiency and assign work order tasks for Dynamic Scheduling.

Business Rules

Field Service Agent Efficiency adds the business rules listed in the following table.

Business rules installed with Field Service Agent Efficiency

Business Rule	Table	Description
Validate Agent Efficiency Record	Agent efficiency value [sn_agent_effcy_value]	Validates Field Service Agent Efficiency criteria and values.
Validate criteria changes	Agent efficiency criteria [sn_agent_effcy_criteria]	Validates updated Agent Efficiency criterion.
Validate determination rule changes	Agent efficiency determination rule [sn_agent_effcy_det_rule]	Validates Agent Efficiency determination rules.

Smart Assessment components

Several types of components are installed with Smart Assessment, including tables, scripts and business rules.

Tables

Smart Assessment adds the table listed in the following table.

Table added with Smart Assessment

Table	Description
Questionnaire Template [sn_fsm_smart_asmt_template]	Stores information about Smart Assessment templates and its associated questionnaire.

Business Rules

Smart Assessment adds the business rules listed in the following table.

Business rules installed with Smart Assessment

Business Rule	Table	Description
Trigger smart assessment	Work Order Task [wm_task]	Generates Smart Assessment instances for work order tasks.
Trigger smart assessment	Work Order [wm_order]	Generates Smart Assessment instances for work orders.
Trigger smart assessment	Affected Product [wm_m2m_product_to_work_order]	Generates Smart Assessment instances for affected products.
Verify Duplicate Association Of Template	Questionnaire template [sn_fsm_smart_asmt_template]	Ensures that each Smart Assessment template is

Business rules installed with Smart Assessment (continued)

Business Rule	Table	Description
		<p>associated with only one questionnaire record.</p> <p>A Smart Assessment template can't be linked to multiple questionnaire records.</p>

Script Includes

Smart Assessment adds the script includes listed in the following table.

Script includes installed with Smart Assessment

Script Include	Description
<i>FSMSmartAsmtUIControlSNC</i>	Has methods to control UI components and actions based on the configuration for Smart Assessment.
<i>FSMSmartAsmtUIControl</i>	Contains a customizable wrapper for the script <i>FSMSmartAsmtUIControlSNC</i> .
<i>FSMSmartAssessmentUtilSNC</i>	Contains methods for all reference qualifiers and generates assessments from the Smart Assessment template if the conditions are met.
<i>FSMSmartAssessmentUtil</i>	Contains a customizable wrapper for the script <i>FSMSmartAssessmentUtilSNC</i> .
<i>FSMSmartAssessmentDaoSNC</i>	Contains all the database queries related to Smart Assessment.
<i>FSMSmartAssessmentDao</i>	Contains a customizable wrapper for the script <i>FSMSmartAssessmentDaoSNC</i> .
<i>FSMSmartAssessmentMigrationHelperSNC</i>	Contains methods related to survey type questionnaire and its instances migration to Smart Assessment.
<i>FSMSmartAssessmentMigrationHelperWrapper</i>	
<i>FSMSmartAssessmentsConstants</i>	Holds the constants for Smart Assessment.
<i>QuestionnaireUtilSmartAssessmentImpl</i>	Implements the extension point <i>QuestionnaireUtilExtPoint</i> and contains utility methods for questionnaires and assessments.
<i>QuestionnaireUtilAjax</i>	Contains methods to alter fields on the record page based on the configuration.

Scheduled Job

Smart Assessment adds the scheduled job listed in the following table.

Scheduled job installed with Smart Assessment

Scheduled Job	Description
Migrate survey instances to smart assessments	Migrates questionnaire instances to Smart Assessment and re-triggers the migrated instances.

Schedule Optimization components

There are other types of components installed with Schedule Optimization, including tables, roles, constraints, objectives, and properties.

Tables

Field Service Schedule Optimization adds the following tables.

Tables installed with Schedule Optimization

Table	Description
Optimization Scope snc_schedule_optim_optimization_scope	Defines the qualifiers (groups or territories), tasks, and policies to be used during optimization
Optimization Batch snc_schedule_optim_batch	Defines the optimization schedule for one, or more, scope
Optimization Feature snc_schedule_optim_optimization_constraints	<p>Defines the objectives and constraints to be used in optimization policies</p> <ul style="list-style-type: none"> • Objective = soft target, optimizer tries to build a schedule that honors these goals • Constraint = hard rule, optimizer must build a schedule that honors these restrictions <p>Note: table is read only</p>
Policies snc_schedule_optim_policy	Container record for objectives and constraints that are used for optimization
Policy Configurations snc_schedule_optim_policy_configuration	<p>Related list table used to add objectives and constraints to a policy and to associate weights with objectives.</p> <ul style="list-style-type: none"> • Optimizer prioritizes adhering to the objectives with the highest weight • Lower weight objectives are considered, but may have less impact on schedule
Scheduling Attribute Configuration snc_schedule_optim_sched_attr_config	Defines global and qualifier-level settings for intra-day optimization, including policy and travel estimate provider.

Tables installed with Schedule Optimization (continued)

Table	Description
	<ul style="list-style-type: none"> • If Global = false, Groups or Territories can be added to a configuration to override optimization settings for a particular qualifier • If Global = true, settings apply to all other groups that don't have an override • Global record also includes additional settings that can't be overwritten at the qualifier level, such as the intraday processing window and flow • Determines the travel estimate vendor for batch optimization
Group Scheduling Attributes snc_schedule_optim_group_m2m_sched_attr_config	Links a Group to a Scheduling Attribute Configuration
Territory Scheduling Attributes snc_schedule_optim_territory_m2m_sched_attr_config	Links a Territory to a Scheduling Attribute Configuration Note: Only installed if FSM Territory plugin is active

Roles

Field Service Schedule Optimization adds the following roles.

Roles installed with Schedule Optimization

Role	Description
schedule_optimization_user	User role for accessing Schedule optimization application. This role allows users to trigger on-demand schedule optimization executions.
schedule_optimization_planner	Planner role for Schedule Optimization Application. This role allows administrators to perform administration configurations for the Schedule Optimization application and perform schedule planning activities.

Tables installed with FSM for Schedule Optimization

The following tables are installed with the Field Service Management plugin, but are only used by Schedule Optimization.

FSM Tables used for Schedule Optimization

[Intraday Events] wm_intraday_events	Captures agent/task events from the following pre-defined triggers:
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FSM Tables used for Schedule Optimization (continued)

	<ul style="list-style-type: none"> • PTO submitted • Agent running late • Task canceled • New high priority task created
[Intraday Jobs] wm_intraday_jobs	<ul style="list-style-type: none"> • Groups all the events for an individual qualifier and relates them to an optimization job • Maintains the state of the optimization job and task updates
[Intraday Job Qualifier] wm_intraday_job_m2m_qualifier	Relates a group or territory to an intraday job

Optimization features used with Schedule Optimization

Objectives and constraints are optimization features that determine how tasks are assigned to agents in Schedule Optimization.

Objectives

Objectives prioritize agent task assignments, and each objective is weighted. Schedule Optimization prioritizes higher-numbered weights. For default settings, apply a weight of 1, and for more important factors, such as maximizing high-priority task assignments, apply a weight of 2.

Schedule optimization objectives

Objective	Description
Maximize balance in number of hours agents work	Reward for even distribution of work hours (i.e., tasks, travel) between agents.
Maximize balance in number of tasks agents work	Reward for even distribution of tasks between agents.
Maximize consecutive collocated task assignments	Reward for each pair of collocated tasks that are assigned consecutively to the same agent.
Maximize higher priority task assignments	Reward for every high-priority task that is assigned. The reward is higher for tasks with higher priorities.
Maximize higher value task assignments	Reward for the value of tasks that are assigned.
Maximize preferred agent assignments	Reward for each task that is assigned to a preferred agent.
Maximize SLA compliance buffers	Reward for each hour that a task finishes earlier than its window end. The reward is smaller for tasks with longer SLA windows.

Schedule optimization objectives (continued)

Objective	Description
Maximize task assignments	Reward for every task that is assigned.
Maximize tasks in earlier shifts	Reward for each task that is assigned to an earlier shift. The reward is higher for shifts that start earlier in the optimization horizon.
Maximize work hours	Reward for every hour of work that is assigned
Minimize higher priority task start times	Penalty for each hour that a task starts later than its earliest window start. The penalty is higher for tasks with higher priorities.
Minimize number of shifts with tasks	Penalty for every shift that is assigned one or more tasks.
Minimize over-skilled agent assignments	Penalty for skill level deviation between agents with a higher skill level than their assigned tasks.
Minimize overtime	Penalty for every hour of overtime.
Minimize SLA violation (fixed)	Penalty for each task that finishes later than its SLA due date.
Minimize SLA violation (hourly)	Penalty for each hour that a task finishes later than in its SLA due date.
Minimize task start times	Penalty for each hour that a task starts later than its earliest window start.
Minimize task time penalties (fixed)	Penalty for each task that finishes later than its penalty time.
Minimize task time penalties (hourly)	Penalty for each hour that a task finishes later than its penalty time.
Minimize travel time	Penalty for every hour of travel.
Minimize under-skilled agent assignments	Penalty for skill level deviation between agents with a lower skill level than their assigned tasks.

Intraday optimization objectives

Objective	Description
Maximize existing assignments	Reward for every agent/task assignment that remains in the schedule.
Minimize delayed tasks (fixed)	Penalty for every task that starts after it was originally scheduled.
Minimize delayed tasks (hourly)	Penalty for every hour that tasks start later than originally scheduled.

Intraday optimization objectives (continued)

Objective	Description
Minimize unassigned tasks	Penalty for every task that is removed from the schedule.

Constraints

Constraints are required and tasks won't be assigned unless the assignment group meets the constraint. Policies created in Schedule Optimization can be assigned to the following constraints.

Schedule Optimization constraints

Constraint	Description
Block excluded agents from assignment	Tasks with excluded agents can't be assigned to those agents.
Enable access hours	Task time windows are restricted based on their access hours. Note: The Field Service (com.snc.fsm_access_hours) Access Hours plugin must be installed to use this feature.
Enable agent travel radius	Agents can only be assigned tasks that are within the travel radius of their home location.
Enable assignments only with preferred/secondary agents	Tasks with preferred/secondary agents can only be assigned to those agents.
Enable excluded agent restrictions	Tasks with excluded agents can't be assigned to those agents.
Enable capacity	Agents must work within the limits of the capacity reservation rules. Note: The Field Service (com.snc.fsm_capacity_management) Capacity Management plugin must be installed to use this feature.
Enable flexible breaks	Agents can be assigned flexible breaks.

Schedule Optimization constraints (continued)

Constraint	Description
	<p>Note:</p> <p>The Shift Scheduling for Field Service (com.snc.sn_fsm_shift_schedl) plugin must be installed and Workforce Optimization for Field Service must be activated to use the flexible breaks feature. For more information, see Activate Workforce Optimization for Field Service.</p>
Enable mandatory parts	Tasks can only be assigned agents who have a sufficient inventory of parts.
Enable mandatory skills	Tasks can only be assigned to agents with necessary skills.
Enable overtime	Agents can work overtime.
Enable travel outside work hours	Agents can travel outside work hours.
Enable task dependencies	Tasks can only be assigned when their dependencies are met.
Enable travel time limits between locations	Agents must travel between locations within their travel time limit.

Schedule optimization properties

You can set parameters that control how optimization runs.

Field Service Schedule Optimization properties

Schedule Optimization properties

General

Property	Description
Exit buffer time	<p>Amount of time (in minutes) to add between the end of a task and the travel start of the next. An example of a valid time value is 10.</p> <ul style="list-style-type: none"> Type: Integer Default value: 0 Location: All > Field Service > Administration > Properties
Qualifier type for schedule optimization	The qualifier type for schedule optimization determines the criteria used to optimize schedules. There are two qualifier types available: "Assignment group" and "Territory."

General (continued)

Property	Description
	<p>When the Field Service Territory model is enabled, the qualifier type automatically switches to "Territory" and remains fixed. This means that when the Territory model is active, the optimization process focuses on territories instead of assignment groups. For more information, see Enable the Field Service territory model.</p> <ul style="list-style-type: none"> • Type: String • Default value: Assignment group • Location: All > Field Service > Schedule Optimization > Administration > Properties
<p>Number of seconds used for task scheduling resolution</p>	<p>Specifies the acceptable interval for scheduling a task.</p> <p>For example, if the value is set to 300 seconds, Schedule Optimization will schedule tasks and the associated travel time, such as task start time, travel start time, or estimated end, to the nearest 5-minute start or end time.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 300 • Location: All > Field Service > Schedule Optimization > Administration > Properties
<p>Maximum number of overlapping qualifiers in a qualifier set</p>	<p>Numeric value set to determine the maximum number of overlapping qualifiers that can be applied to a single qualifier set.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 30 • Location: All > Field Service > Schedule Optimization > Administration > Properties
<p>Logging level</p>	<p>The logging level will determine the type of information displayed in the results of an optimization log entry, providing details about the Schedule optimization run. There are four options available: Error, Warning, Info, and Debug.</p>

General (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: Choice • Default value: Error • Location: All > Field Service > Schedule Optimization > Administration > Properties

Travel Time Estimates

Property	Description
Maximum number of location points allowed in a map vendor call	<p>Numeric value set to determine the maximum number of location points allowed in a map provider call.</p> <p>Changing the default value of sync to async can improve performance and may result in more outbound requests.</p> <p>Beans.AI is the map provider that Schedule Optimization supports for travel time estimates. For more information, see Schedule Optimization travel estimate providers.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 300 • Location: All > Field Service > Schedule Optimization > Administration > Properties

Performance-related Schedule Optimization properties

The following is the list of solution processing properties that are available with the Schedule Optimization plugin. To access these properties, navigate to **All > System Properties > All Properties**.

Schedule Optimization solution processing properties

Property	Description
com.glide.event_manager.sn_schedule_optim.data_processing_limit	<p>This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100

Schedule Optimization solution processing properties (continued)

Property	Description
com.glide.event_manager.sn_schedule_optim.data_queue_balanced_distribution.enabled	Controls balanced distribution for custom queue sn_schedule_optim.data_queue_1 <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.data_queue_2_max_trisits	This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction. <ul style="list-style-type: none"> • Type: Integer • Default value: 100
com.glide.event_manager.sn_schedule_optim.data_queue_balanced_distribution.enabled	Controls balanced distribution for custom queue sn_schedule_optim.data_queue_2 <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.data_queue_3_max_trisits	This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction. <ul style="list-style-type: none"> • Type: Integer • Default value: 100
com.glide.event_manager.sn_schedule_optim.data_queue_balanced_distribution.enabled	Controls balanced distribution for custom queue sn_schedule_optim.data_queue_3 <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.data_queue_4_max_trisits	This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction.

Schedule Optimization solution processing properties (continued)

Property	Description
	<ul style="list-style-type: none"> Type: Integer Default value: 100
com.glide.event_manager.sn_schedule_optim.data_queue_4_enabled	<p>Control 4-level event distribution for custom queue sn_schedule_optim.data_queue_4</p> <ul style="list-style-type: none"> Type: true/false Default value: false
com.glide.event_manager.sn_schedule_optim.data_queue_5_limit	<p>This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction.</p> <ul style="list-style-type: none"> Type: Integer Default value: 100
com.glide.event_manager.sn_schedule_optim.data_queue_5_enabled	<p>Control 5-level event distribution for custom queue sn_schedule_optim.data_queue_5</p> <ul style="list-style-type: none"> Type: true/false Default value: false
com.glide.event_manager.sn_schedule_optim.data_queue_6_limit	<p>This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction.</p> <ul style="list-style-type: none"> Type: Integer Default value: 100
com.glide.event_manager.sn_schedule_optim.data_queue_6_enabled	<p>Control 6-level event distribution for custom queue sn_schedule_optim.data_queue_6</p> <ul style="list-style-type: none"> Type: true/false Default value: false
com.glide.event_manager.sn_schedule_optim.data_queue_7_limit	<p>This property controls the number of Data Processing events that are captured and</p>

Schedule Optimization solution processing properties (continued)

Property	Description
	<p>processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100
<p>com.glide.event_manager.sn_schedule_optim.data_queue_7.enabled</p>	<p>Control the number of events in the distribution for custom queue sn_schedule_optim.data_queue_7</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
<p>com.glide.event_manager.sn_schedule_optim.data_queue_8.limit</p>	<p>This property controls the number of Data Processing events that are captured and processed in a single background transaction. If the property is set to 100, the event handler will grab and process the first 100 Data Processing events from the queue in one background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100
<p>com.glide.event_manager.sn_schedule_optim.data_queue_8.enabled</p>	<p>Control the number of events in the distribution for custom queue sn_schedule_optim.data_queue_8</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
<p>com.glide.event_manager.sn_schedule_optim.event_queue_1.limit</p>	<p>Control the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
<p>com.glide.event_manager.sn_schedule_optim.event_queue_1.enabled</p>	<p>Control the number of events in the distribution for custom queue sn_schedule_optim.event_queue_1.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false

Schedule Optimization solution processing properties (continued)

Property	Description
com.glide.event_manager.sn_schedule_optim.event_queue_2_size	<p>Controls the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
com.glide.event_manager.sn_schedule_optim.event_queue_2_distribution_enabled	<p>Controls event distribution for custom queue sn_schedule_optim.event_queue_2.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.event_queue_3_size	<p>Controls the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
com.glide.event_manager.sn_schedule_optim.event_queue_3_distribution_enabled	<p>Controls event distribution for custom queue sn_schedule_optim.event_queue_3.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.event_queue_4_size	<p>Controls the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
com.glide.event_manager.sn_schedule_optim.event_queue_4_distribution_enabled	<p>Controls event distribution for custom queue sn_schedule_optim.event_queue_4.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.event_queue_5_size	<p>Controls the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500

Schedule Optimization solution processing properties (continued)

Property	Description
com.glide.event_manager.sn_schedule_optim.event_queue_5.enabled	<p>Controls whether event distribution is enabled for custom queue sn_schedule_optim.event_queue_5.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.event_queue_6.chain_limit	<p>Controls the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
com.glide.event_manager.sn_schedule_optim.event_queue_6.enabled	<p>Controls whether event distribution is enabled for custom queue sn_schedule_optim.event_queue_6.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.event_queue_7.chain_limit	<p>Controls the number of Solution Processing events are grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
com.glide.event_manager.sn_schedule_optim.event_queue_7.enabled	<p>Controls whether event distribution is enabled for custom queue sn_schedule_optim.event_queue_7.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false
com.glide.event_manager.sn_schedule_optim.event_queue_8.chain_limit	<p>Controls the number of Solution Processing events grabbed by its event handler and processed in a single background transaction.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 500
com.glide.event_manager.sn_schedule_optim.event_queue_8.enabled	<p>Controls whether event distribution is enabled for custom queue sn_schedule_optim.event_queue_8.</p> <ul style="list-style-type: none"> • Type: true/false • Default value: false

Schedule Optimization solution processing properties (continued)

Property	Description
sn_schedule_optim.data_processor_number_of_queues	<p>Number of queues for data processing</p> <p>Enables performance improvement for end to end optimization.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 4
sn_schedule_optim.solution_processor_number_of_queues	<p>Number of queues for solution processing (task updates).</p> <p>Increases the number of custom queues (up to 8) for processing optimization solution and speeding up optimization by allowing more parallel processing during solution processing flow.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 4
sn_schedule_optim.solution_processor_packet_size	<p>Packet size to group events for solution processing (task updates).</p> <p>Sets the packet size for grouping events in solution processing, defining the capacity of each custom queue. It aims to distribute solution processing as widely as possible across the available custom queues specified in sn_schedule_optim.solution_processor_number_of_queues."</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 10
sn_schedule_optim.map_vendor_call_types	<p>Controls whether a synchronous or asynchronous call type is made to the map vendor. Changing the default value of sync to async can improve performance and may result in more outbound requests.</p> <ul style="list-style-type: none"> • Type: String • Default value: "beans": "sync"
sn_fsm_map_integr.logging.verbosity	<p>Captures additional logs for troubleshooting purposes. It is used for integration calls to map providers such as Beans.ai or Google, providing detailed insights to help diagnose and resolve issues.</p>

Schedule Optimization solution processing properties (continued)

Property	Description
	<ul style="list-style-type: none"> • Type: Choice • Default value: info

Note:

The 'maint' role is required to edit any performance-related properties. This role is exclusive to internal users. Contact support to make changes.

Schedule Optimization travel estimate providers

Travel estimate providers used by Schedule Optimization.

Efficient allocation of work order tasks to agents depends on accurate estimation of travel time, taking into account both the agent's location and the task's location. Schedule Optimization supports two options to calculate distances between agents and task, Straight-line and Beans.AI. An administrator is required to select a travel estimate provider for all qualifier-level groups. See, [Create a scheduling attribute for Schedule Optimization](#) for more information on where the options are located.

Straight-line

To enter straight-line travel estimate configuration properties, an administrator can navigate to **All > Schedule Optimization > Configuration > Scheduling Attributes** and open the travel estimate configuration record.

In the **General** tab, you can add the speed limit for the region in the speed multiplier field.

In the **Multipliers** tab, the multipliers defined in the straight-line calculation, are the values that the estimated straight-line travel time is multiplied by, depending on the time bracket the estimate falls in. If the travel time is less than 15 minutes, multiply by a value greater than 1, to increase the estimated travel time. If the travel time is greater than 15 minutes, multiply by a positive value smaller than 1 to decrease the estimated travel time.

Note:

Straight-line distance calculation is a fallback logic in case a customer doesn't want to choose a map provider for travel time estimates.

Beans.AI

Beans.AI is the map provider that Schedule Optimization supports for travel time estimates.

To create a connection and credential record for Beans.AI, an administrator can navigate to **All > IntegrationHub > Connection and Credentials > Connection and Credentials Aliases**.

Travel estimates are obtained every time Schedule Optimization runs. An administrator can limit the number of locations that are queried from Beans.AI. For example, if optimization runs for two agents and two tasks, a 4x4 matrix is sent to Beans.AI to find the shortest distance to the new location. A 4x4 matrix sends 16 location elements to Beans.AI. If the number of locations queried exceeds the set value, the query defaults to straight-line. To change the maximum number of location points allowed in a provider call, an administrator can navigate to **All > Schedule Optimization > Configuration > Properties >** and change the value in the Travel Time Estimates field. The default value is set to 300.

To change the configurations for Beans.AI, an administrator can navigate to **All > Map Integrations for Field Service > Map Provider Configuration**.

By default, the **Inputs** field is set to Beans.AI. By default **Decision table** is set up as follows:

Fields in Beans.AI configuration for travel time estimates

Field	Value
Request Threshold Limit	5000 [considering 50 runs a day with 100 groups in each run]
Max Location Element Count	250,000 [considering 500 x500 matrix support per Map Provider call]

Note:

Straight-line distance calculation is a fallback logic in case a customer doesn't want to choose a map provider for travel time estimates.

Intra-day schedule automation flows and subflows

The flows and subflows for configuring intra-day schedule automation.

Intra-day scheduling flows

- Agent time off created – The agent records time off, blocking availability.
- FSM agent not take action – The agent fails to act as expected-for example, not marking travel start- triggering a dispatcher alert.
- Work order task progressed – A task progresses, but the agent is early or late, affecting schedule timing.
- Canceled task-A task is canceled. Schedule Optimization fills the gap.
- High priority task- A high-priority task is added. Schedule Optimization reschedules to minimize disruption.

Intra-day scheduling subflows

Field Service Management Scheduling Flow Designer Subflows

Subflow	Description
Agent tasks left adjustment	The agent was early to a task, so tasks shift to the left to accommodate for the early schedule.
Agent tasks right adjustment	The agent was late to a task, so the task shifts to the right to accommodate for the later schedule.
Auto-assign unassigned tasks	Unassigned tasks that are in the queue are automatically assigned to available agents.
Flag work order tasks	Work order tasks are flagged for review.
FSM send notification and flag the task	Work order tasks are flagged for review and the dispatcher is notified.

Field Service Management Scheduling Flow Designer Subflows (continued)

Subflow	Description
FSM wait for travel start	Checks whether the agent started to travel at the specified time.
FSM wait for work complete	Checks that the agent completed work at the specified time.
FSM wait for work start	Checks that the agent started work at the specified time.
Run task recommendation	Recommends tasks for an agent with free time. For example, the task recommendation runs if the agent has canceled tasks or ended a task early.

Task assignees table for crew members or equipment

The task assignees table shows all the crew members or equipment assigned to a given work order task.






Task assignees table values

Value	Description
Resource type	If the resource described is an agent or a piece of equipment.
Name	The name of the agent. This value is empty if the resource is set to Equipment.
Equipment	The name of the Equipment. This value is empty if the resource is set to Agent.
Role	The role of the agent in the crew. This value is empty if the resource is set to Equipment.
Requirement	If the agent is required to have certain skills, those required skills are listed here.
Actual work start	When work on the crew task actually started. This value is set when the crew leader starts work.
Actual work end	When work on the crew task ended. This value is set when the crew leader ends work.
Work duration	The total time spent working on the task including any pauses and breaks.
Actual work duration	The total time spent working on the task not including any pauses and breaks.

Calendar event icons in Dispatcher Workspace

Become familiar with the icons on calendar events to identify what they indicate.












Calendar event icons

Icon	Description	File name
	The work type for the task is set to new installation.	new-installation.png
	The work type for the task is set to maintenance.	maintenance.png
	The work type for the task is set to break/ fix.	break-fix.png
	The task is schedule locked.	lock.png
	The work order task requires a crew.	crew.png
















Map iconography in Dispatcher Workspace

Unique map pins and icons in the dispatch map that mark the location of tasks and agents.

Dispatch map legend

Icon	Description
	An agent's location.
	An agent's last known location when their live location can't be determined. For example, if the agent has lost reception.
	The agent is at their home location.
	Multiple agents are at this location.
	The task is accepted, assigned, or scheduled.
	Multiple tasks have been accepted, assigned, or scheduled at this location.
	A priority-1 task has been accepted, assigned, or scheduled.
	The assigned work order task displayed while viewing agent's route. The number indicates the order in which the task will be completed.
	The task is in the pending dispatch or draft state.
	Multiple tasks are in the pending dispatch or draft state.
	A priority-1 task is in the pending dispatch or draft state.

Dispatch map legend (continued)

Icon	Description
	An agent is on the way to the task, work on the task is paused, or the task is in progress.
	An agent is on the way to a location with multiple tasks, work on a task is paused, or the task is in progress.
	An agent is on the way to a priority-1 task, work on the priority-1 task is paused, or the priority-1 task is in progress.
	A work order task is complete.
	Multiple tasks are complete at the same location.
	A priority-1 task is complete.
	A task was closed as incomplete or canceled.
	Multiple tasks were closed as incomplete or canceled.
	A priority-1 task was closed as incomplete or canceled.
	A task is assigned at the agent's home location.
	Multiple tasks are assigned at the agent's home location.
	More than one task, agent, or crew is at this location.
	More than one task, agent, or crew is at this location. At least one of the tasks at this location is a priority-1 task.
	The lighter-colored line on the dispatch map shows the route that a Field Service agent has completed.
	The darker-colored line on the dispatch map shows the route that a Field Service agent is planning to complete.

Linear Assets Support properties

Linear assets support for Field Service Management uses the following system properties, which are located in the System Properties [sys_properties] table.

Properties installed with Linear Assets Support

Properties	Description
sn_fsm.default_location_for_linear_work_order	<p>Default location for linear asset work order.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: start_location
sn_fsm.linear_assets_map_distance_unit	<p>Distance unit used in calculation of radius on map for linear assets.</p> <ul style="list-style-type: none"> • Type: choice list • Default value: kilometers
sn_fsm.linear_assets_map_initial_zoom	<p>Controls the initial zoom level of Google Maps while displaying linear assets in the Field Service Management Service Locations feature.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 3
sn_fsm.linear_assets_map_load_distance	<p>Map load distance radius for linear assets</p> <ul style="list-style-type: none"> • Type: integer • Default value: 10
sn_fsm.linear_assets_map_max_zoom_level	<p>Controls the maximum auto-zoom level of Google Maps while displaying linear assets in the Field Service Management Service Locations feature. It limits how far the map automatically zooms in while fitting markers or assets into view.</p> <ul style="list-style-type: none"> • Type: integer • Default value: 12
sn_fsm.linear_assets_map_type	<p>Distance unit used on service location google maps</p> <ul style="list-style-type: none"> • Type: Choice list • Default value: roadmap

Advanced resource filter tables

The tables that contain the values administrators must enable for dispatchers to use to create resource filters can be found listed below.

The available tables are different if you have assignment groups or territories configured.

Available tables

Name	Tables
Assignment group agent configuration (agent_filter_config_view)	<ul style="list-style-type: none"> • sys_user_grmember • sys_user • sys_user_has_skill
Assignment group crew configuration (crew_filter_config_view)	<ul style="list-style-type: none"> • wm_crew_group • wm_crew • wm_crew_skill
Territory agent configuration (terr_agent_filter_config_view)	<ul style="list-style-type: none"> • sys_user • sys_user_grmember • sn_tp_territory_group • sn_tp_territory_membership_override • sys_user_has_skill
Territory crew configuration (terr_crew_filter_config_view)	<ul style="list-style-type: none"> • wm_crew • wm_crew_group • sn_tp_territory_group • sn_tp_territory_membership_override • wm_crew_skill

Learn about appointment availability settings for an application configuration

Appointment availability defines how many customer appointments can be scheduled within each time slot. You can control availability using different methods based on your organization's needs.

As an administrator, you can configure availability settings at the application level, choosing from the following three methods:

Number of appointments per slot (Fixed)

Set a fixed number of available appointments for each time slot. For example, if you set **10 appointments per slot**, each slot starts with 10 openings. Every appointment booked reduces availability by one.

Example:

You configure 10 appointments per 1-hour slot. After booking one appointment, 9 slots remain available.

i Important:

Appointment limits per slot apply across all locations in the same time zone. If you need different appointment limits for specific locations, create individual **Service Configuration** rules, with advanced conditions using the **Location** as a criterion.

Scripted

Use scripts to dynamically calculate availability for each time slot. This method adapts availability based on your scheduling rules. The default script included with Field Service Management uses your task assignment method (configured in either the **Field Service Order** or **Field Service Task configuration**).

Manual assignment: Defaults to the fixed appointments-per-slot method.

Auto-assignment or Dynamic scheduling: Calculates availability based on resource assignments and scheduling configurations.

Based on capacity

Calculates available appointments based on capacity and reservation settings. Capacity indicates how many tasks your resources can handle at a given time.

The capacity is shared across different cities in the same time zone.

i Important:

Available only if the Field Service Capacity and Reservations Management plugin is installed, and the Task table is Work Order or Work Order Task.

Excluding days from appointment availability

You can exclude certain days, such as holidays, from appointment availability: In the Service Configuration, select a Holiday Schedule. Days marked as Excluded in the selected schedule will not be available for appointments.

i Note:

The **Holiday Schedule** references the Schedules table (cmn_schedule).

Related topics

[Global domain configurations](#)

[Schedules](#) ↗

Learn about task assignment methods for an application configuration

The Appointment Booking feature works with Field Service Management task assignment methods to effectively assign tasks and manage appointments.

Appointment Booking supports these task assignment methods:

- Auto-assignment
- Dynamic scheduling
- Manual

Appointment booking provides enhancements that help with scheduling efficiency:

- Automatically identifies the most suitable dispatch group for each appointment-based task.
- Prevents tasks with booked appointments from becoming unassigned.
- Calculates agent and group availability accurately for appointment windows.

Dynamic scheduling

Appointment booking adds unassignment criteria to the dynamic scheduling configuration that prevents work orders and work order tasks with appointment windows from being unassigned. It also adds criteria that prioritizes work orders and tasks with appointment windows.

Navigate to **Field Service > Administration > Dynamic Scheduling Configuration**.

- The **Task Filters** related list includes an Appointment Tasks filter for tasks that have an appointment window and are in the **Pending Dispatch** state.
- The **Un-Assignment Constraints** related list includes the **Has Appointment** constraint that prevents tasks with appointment windows from being unassigned.

Rescheduling work start and work end times

When a work order is created for a booked appointment, or when an appointment is booked for an existing work order, the appointment window start and end times are used for the work order task **Window start** and **Window end** times.

For work order tasks that have scheduled appointments, dispatchers receive warning messages if they change any of the following fields:

- Window start
- Window end
- Scheduled start
- Scheduled travel start

Related topics

[Global domain configurations](#)

[Schedules](#) 

Data model for denormalized tables in Field Service Management

Use the table below to reference the Field Service Management weekly resource span denormalized table.

Weekly resource span table

wm_weekly_resource_span		
Resource type	Choice	User/Crew/Equipmen/ Schedule
Resource id	String (size of 40)	
Weekly start	Date/Time	Week starts at 12:00AM UTC
Weekly end	Date/Time	Week ends at Saturday 23:59:59PM UTC
Span Time zone	String (size of 40)	



Weekly resource span table (continued)

wm_weekly_resource_span		
Spans	JSON	List of weekly schedule and event spans
Domain	Domain id	

Now Assist for Field Service Management (FSM)

Use the ServiceNow[®] Now Assist for Field Service Management (FSM) application to summarize work order tasks. You can enable users to generate work order task summaries so that they can create notes faster and with more detail.

Get started

<p style="text-align: center;">Explore</p>  <p style="text-align: center;">Learn more about Now Assist for FSM</p>	<p style="text-align: center;">Configure</p>  <p style="text-align: center;">Configure the Now Assist for FSM application to get started</p>	<p style="text-align: center;">Use</p>  <p style="text-align: center;">Use generative AI capabilities offered by Now Assist for FSM</p>
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i Important:

- Not all model providers are available for customers with in-country SKUs, and some Now Assist products/features are currently unavailable for in-country customers. For more information, see the [KB1584492](#) article in the Now Support Knowledge Base. Be sure to check for model provider availability updates in future releases.
- Some Now Assist products/features are currently unavailable for customers in the FedRAMP, NSC DOD IL5, or Australia IRAP-Protected data centers, self-hosted customers, or in other restricted environments. For more information, see the [KB0743854](#) article in the Now Support Knowledge Base. Be sure to check for availability updates in future releases.
- Some Now Assist products/features are currently available only for customers in some regions. Be sure to check for availability updates in future releases.
- Some AI products and skills are not available in Regulated Markets. For more information, see [KB2593939: Regulated Markets AI Products/Skills Not Available](#). Be sure to check for availability updates in future releases.

i Important:

Some Now Assist products/features are currently available only for customers in some regions. Be sure to check for availability updates in future releases.

Troubleshoot and get help

- [ServiceNow Community AI & Intelligence](#)
- [Search the Known Error Portal for known error articles](#)
- [Contact Customer Service and Support](#)

AI limitations

This application uses artificial intelligence (AI) and machine learning, which are rapidly evolving fields of study that generate predictions based on patterns in data. As a result, this application may not always produce accurate, complete, or appropriate information. Furthermore, there is no guarantee that this

application has been fully trained or tested for your use case. To mitigate these issues, it is your responsibility to test and evaluate your use of this application for accuracy, harm, and appropriateness for your use case, employ human oversight of output, and refrain from relying solely on AI-generated outputs for decision-making purposes. This is especially important if you choose to deploy this application in areas with consequential impacts such as healthcare, finance, legal, employment, security, or infrastructure. You agree to abide by [ServiceNow's AI Acceptable Use Policy](#), which may be updated by ServiceNow.

Data processing

This application requires data to be transferred from ServiceNow customers' individual instances to a centralized ServiceNow environment, which may be located in a different data center region from the one where your instance is, and potentially to a third-party cloud provider, such as Microsoft Azure. This data is handled per ServiceNow's internal policies and procedures, including our policies available through our [CORE Compliance Portal](#).

Data collection

ServiceNow collects and uses the inputs, outputs, and edits to outputs of this application to develop and improve ServiceNow technologies including ServiceNow models and AI products. In addition, this application will collect task data (for Case Assist) and chat transcripts (for Chat Assist). Customers can opt out of future data collection at any time, as described in the [Now Assist Opt-Out page](#).

For more information, see the [Now Assist documentation](#).

Exploring Now Assist for Field Service Management (FSM)

With the Now Assist for Field Service Management (FSM) application, users can generate work order task summaries and knowledge articles from work order task information. The sidebar summarization feature also helps agents quickly capture and document important discussions.

Now Assist for Field Service Management (FSM) overview

The following generative AI capabilities are available:

- Work order task summarization can help agents close tasks faster by generating summaries from work order task information. Automated content entry with Now Assist for Field Service Management (FSM) optimizes summary creation, reducing agent time on the application and providing higher-quality details in the work notes.
- Knowledge generation can help an agent to streamline content creation. An agent can automatically generate knowledge articles by using the relevant data from the work order task record. By not having to generate knowledge articles manually, this feature saves your agents valuable time and effort.
- Sidebar summary captures discussions between agents, dispatchers, and subject matter experts, and can be posted to the work notes. Agents can quickly summarize the sidebar discussion at any point during the conversation using the Summarize quick action, ensuring that all important details are accurately documented and easily accessible for future reference.
- Now Assist in Virtual Agent enables agents to access a virtual assistant to quickly summarize work order task records from the Mobile Agent application.
- Conversational search provides agents with quick, accurate answers to questions from the Knowledge Base, including additional information and related steps for effective assistance via the Mobile Agent app.

Skills

The Now Assist for FSM application includes generative AI skills that enable users to generate summary notes on work order tasks in any state, or generate knowledge articles from closed work order tasks.

Work Order Task Summarization

Enables users to generate a task closure summary using pre-configured inputs from the work order task.

The work order task summarization skill generates a summary from the following work order task fields:

- Description
- Short description
- Work notes
- Additional comments

Knowledge generation

Enables an agent to generate a knowledge article from a case after closing the work order task.

The knowledge generation skill displays a pop-up window that an agent can use to generate a knowledge article based on similar work order tasks and review it before publishing the knowledge article draft.

Sidebar discussion summarization

Provides agents with a summary of their discussions with dispatchers and subject matter experts.

The sidebar discussion summarization skill enables agents to:

- Summarize the Sidebar discussion at any point during the discussion using the Summarize quick action.
- Share the Sidebar discussion to the work notes.
- Provide feedback for the summary.

Now Assist in Virtual Agent for Field Service

Now Assist in Virtual Agent for Field Service Management guided setup can reduce the time and effort needed to deploy Now Assist in Virtual Agent for mobile. Your administrators can configure features and skills as well as sources of information such as knowledge bases and catalogs. For more information, see [Create an Assistant for Field Service Management](#).


Configure Now Assist for Field Service Management (FSM)

If you have the admin role, you can configure Now Assist for Field Service Management (FSM) application so that users can generate work order summaries and knowledge articles, or summarize Sidebar discussions.

Before you begin

Role required: wm_admin

About this task

Use the Now Assist Admin console to configure Now Assist for FSM. This console contains everything that you need to install the plugins and configure the generative AI skills. For more information, [Now Assist Admin console](#) .

The following table lists the features and skills that you can access from the Now Assist Admin console.

FSM feature in the Now Assist Admin console

FSM feature	Skills
Work Order Task	Work Order Task Summarization
Knowledge	KB generation
Chat	Sidebar summarization

The ServiceNow® large language model (Now LLM Service) is currently the only provider for this Now Assist application's skills.

Procedure

1. If necessary, install the Now Assist for FSM plugin (sn_fsm_gen_ai).

For information about the installation process, see [Install Now Assist plugins](#).

2. Navigate to **All > Now Assist Admin > Features** to access the **Features** tab of the Now Assist Admin console.
3. In the Select product field, select **FSM**.
4. Activate and configure the skills for the Now Assist for FSM features.
These features are grouped under the **Customer** workflow group. Each feature has its associated skills.
5. On the feature card that is associated with the skill that you would like to activate, select **View details**.
6. In the All available skills section, select **Activate skill**.
7. Select the inputs or triggers for the selected skill.

For information about the inputs and triggers for each skill, see [Skill inputs for Now Assist for Field Service Management \(FSM\)](#).
8. After you've configured the inputs or triggers for the selected skill, select **Save and continue** to go to the next step.
You can return to a previous step by using the **Back** button.
9. Define the availability of the skill.
 - Select **Skill is always available** to enable the skill everywhere it is available.
 - Select **Customize skill availability** to manually set the conditions for when the skill is available.
10. After you configure skill availability, select **Save and continue** to go to the next step.
11. Select where you would like to display the skill.
 - Select **In-product** to display the skill on the Mobile Agent app.
 - Select **Now Assist panel** to display the skill in the Now Assist panel.
12. After you configure the display for the selected skill, select **Save and continue** to go to the next step.
13. Review your choices and select **Activate** to complete the configuration.
Your skill is configured.

14. Configure the Generate closure notes UI actions.

To complete activation for the work order task summarization skill, you must enable the Generate closure notes UI actions for the Close complete and Close incomplete states. For more information, see [Configure the Generate closure notes UI action](#).

Related topics

[Now Assist Admin console](#) 

[Configuring Now Assist settings and features](#) 

Skill inputs for Now Assist for Field Service Management (FSM)

Use the inputs for each skill to configure how a skill is used.

Skills overview

Depending on the selected skill, you can configure inputs. These settings determine how a skill is used. An input identifies the data that is used for a skill, such as the table and fields used to generate a work order task summary.

Sidebar discussion summarization skill

For the sidebar discussion summarization skill, select the triggers that determine when a sidebar discussion summary is generated.

The following table lists the triggers that determine when a sidebar discussion summary is generated.

Triggers for the sidebar discussion summarization skill

Trigger	Description
User triggered	Sidebar discussion summarization that is generated when the agent manually triggers the skill.

Work order task summarization skill

The work order task summarization skill includes the inputs that identify the table and fields that are used when a closure note summary is generated.

In this release, you can't modify a skill's input data source. The data source contains the tables and fields that the skill relies on.

The following table lists the inputs for the work order task summarization skill.

Inputs for the work order task summarization skill

Input	Description
Input table	Work Order Task [wm_task]
Input fields	<ul style="list-style-type: none"> Description Short description Work notes

Inputs for the work order task summarization skill (continued)

Input	Description
	<ul style="list-style-type: none"> • Additional comments • Affected Product name • Part requirement model • Part requirement required quantity • Part requirement reserved quantity

KB generation skill

The KB generation skill includes the inputs that identify the table and fields that are used when the knowledge article draft is generated for a case.

In this release, you can't modify a skill's input data source. The data source contains the tables and fields that the skill relies on.

The following table lists the inputs for the knowledge article generation skill.

Inputs for the knowledge article generation skill

Input	Description
Input table	Work Order Task [wm_task]
Input fields	<ul style="list-style-type: none"> • Short description • Description • Work notes • Comments

Configure the Generate closure notes UI action

Add generative AI-specific functionality to the task closure screens by configuring the Generate closure notes UI action that is included with the Now Assist for Field Service Management (FSM) application.

Before you begin

Role required: wm_admin

About this task

The Field Service Management application includes Close complete and Close incomplete parameter screens that agents can use to close work order tasks.

The Now Assist for FSM application includes generative AI-specific functionality that agents can use to generate work order task closure summaries.

Procedure

1. Activate the Generate closure notes UI action for the Close complete screen.
 - a. Navigate to **All > System Mobile > Screens**.
 - b. Filter the list to display **Close** in the **Name** field.
 - c. Select the Close complete screen.
 - d. Select the **Actions** tab.
 - e. Select the **gen_ai_user_action_close_complete** action.
 - f. Select the **Active** check box.
 - g. Select **Update**.
2. Activate the Generate closure notes UI action for the Close incomplete screen.
 - a. Navigate to **All > System Mobile > Screens**.
 - b. Filter the list to display **Close** in the **Name** field.
 - c. Select the Close incomplete screen.
 - d. Select the **Actions** tab.
 - e. Select the **gen_ai_user_action_close_incomplete** action.
 - f. Select the **Active** check box.
 - g. Select **Update**.

Result

The Generate closure notes UI action is enabled. Agents can generate closure notes when closing work order tasks on the Mobile Agent[®] application. For more information, see [Generate work order task closure summaries in the Mobile Agent application](#).

Configure the KB generation skill

Configure the KB generation skill that agents can use to draft a knowledge article with Now Assist.

Before you begin

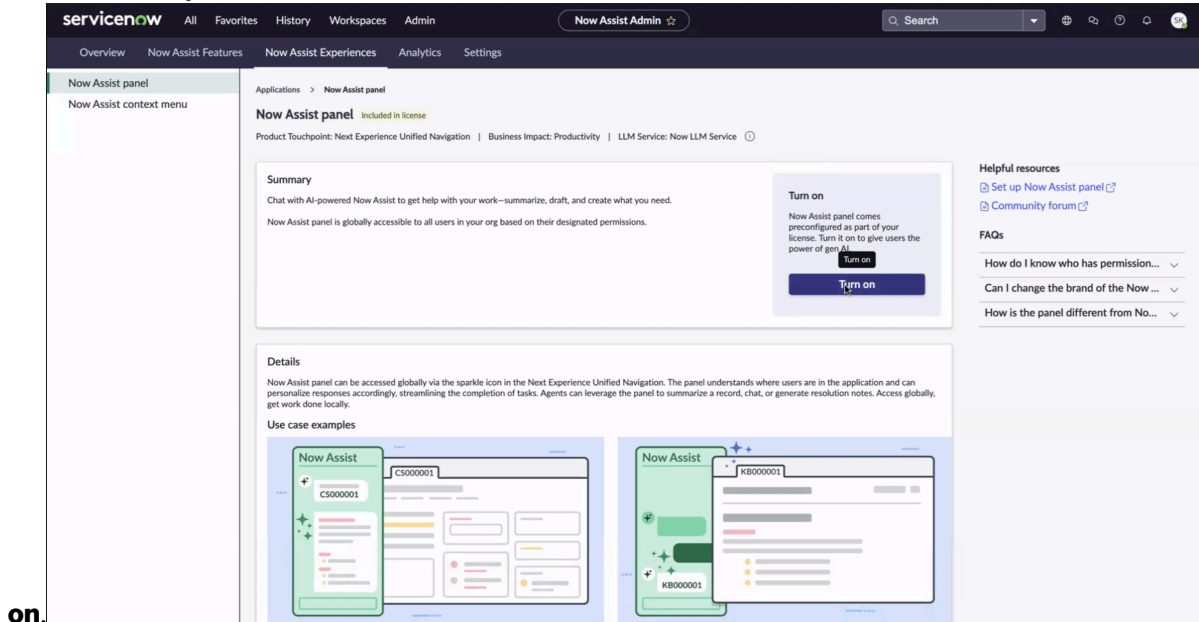
Role required: wm_admin

About this task

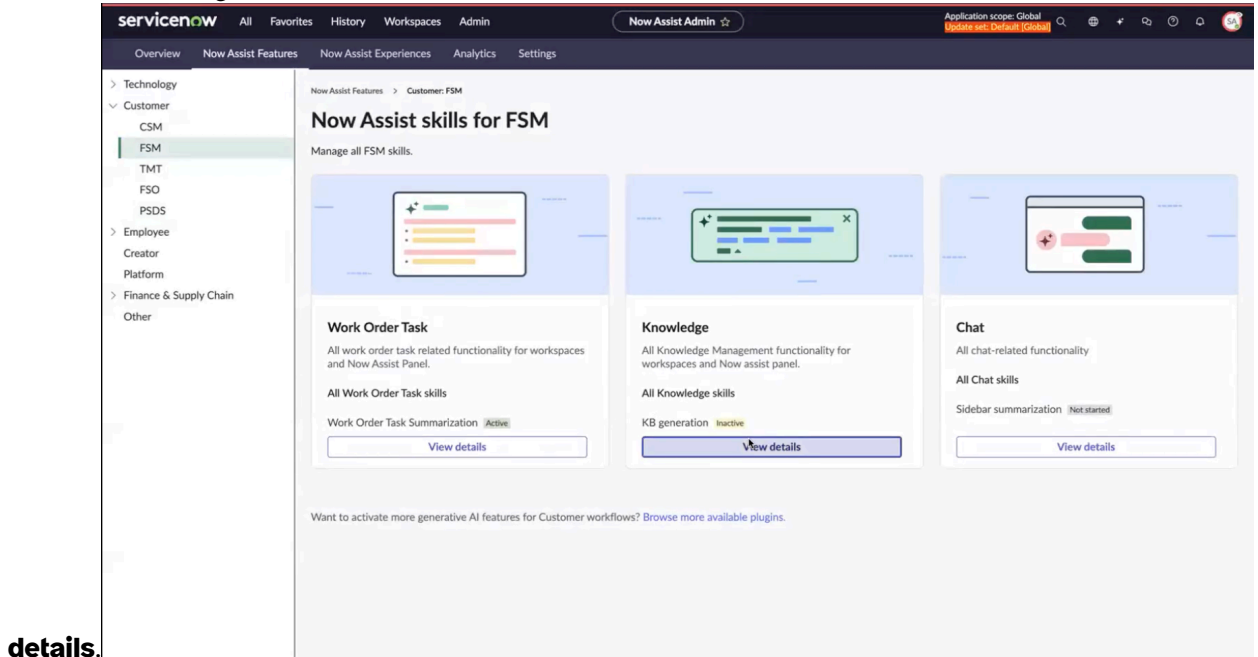
To allow agents to generate knowledge articles for work orders in a closed complete or closed incomplete state, you configure the KB generation skill. This configuration involves three key steps: Enable the Now Assist panel, activate the FSM knowledge skill, and turn on the Now Assist for Platform knowledge skill. Follow these steps to ensure your KB generation skill is set up correctly.

Procedure

1. Navigate to **All > Now Assist Admin > Experiences** to access the *Now Assist* panel tab of the Now Assist Admin console.
2. In the summary section, select **Turn**



3. Select **Go to features and skills**.
4. In the Customer workflow group, select **FSM**.
5. On the **Knowledge** feature card, select **View**

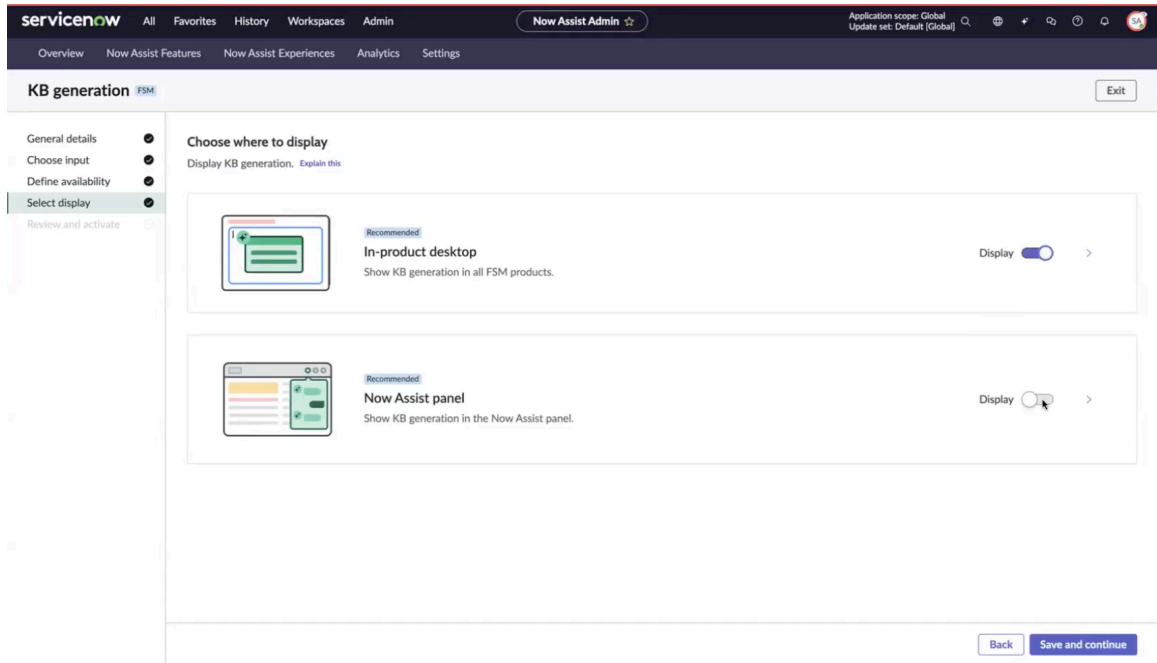


6. In the All available knowledge skills section, select **Activate skill**.
7. Select where you want to display the KB generation skill by toggling the Display switch. You can select In-product, Now Assist panel, or both.

- **In-product:** When selected, Now Assist skills are displayed on forms and workspaces. Select the arrow next to the toggle switch to define the roles that can use this skill in-product.
- **Now Assist panel:** When selected, Now Assist skills are available in the Now Assist panel. Select the arrow next to the toggle switch to define roles that can use this skill in the Now Assist panel.

Note:

If you don't see the Now Assist panel toggle, go back to step 1 to enable it.



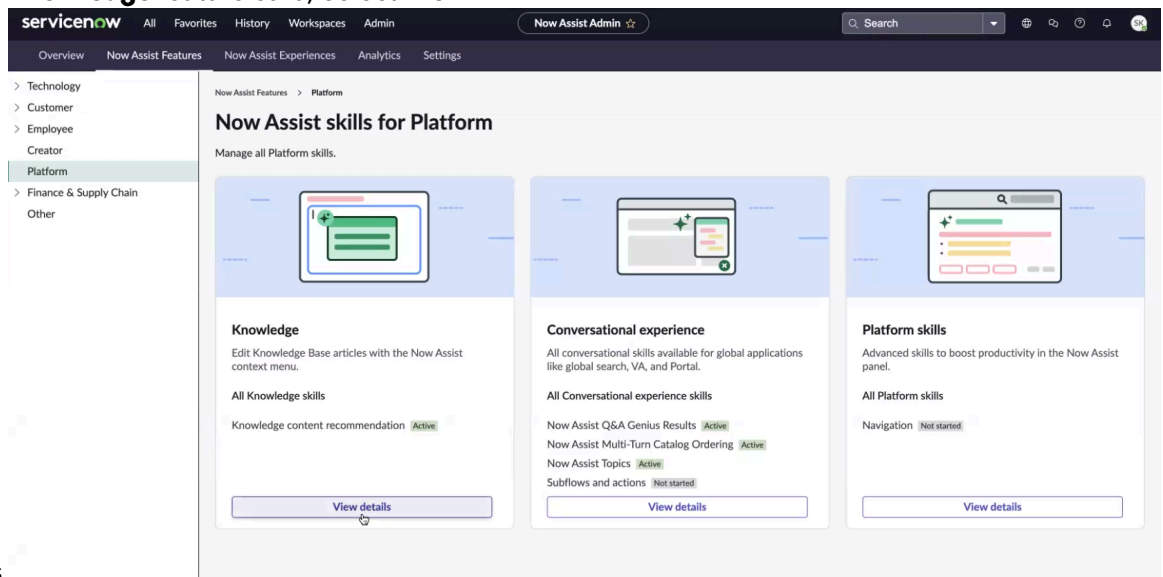
8. Select **Save and continue** to go to the next step.

9. Review your choices and select **Activate**.

10. Return to Knowledge.

11. Select the Platform workflow.

12. On the **Knowledge** feature card, select **View**



details.

13. In the All available knowledge skills section, select **Activate skill**.

14. Select **In-product desktop** by toggling the Display switch.
15. Select **Save and continue** to go to the next step.
16. Review your choices and select **Activate** to complete the configuration.

Customizing a skill

If you have the admin role, you can customize the Now Assist for FSM work order task summarization skill so that agents can use the generative AI skills in CSM/FSM Configurable Workspace and in Core UI.

Configuration overview

You can customize the following skills:

- [KB generation](#)
- [Work order task summarization](#)

Customize a Now Assist for Field Service Management (FSM) work order task summarization skill

If you have the admin role, you can customize the Now Assist for FSM work order task summarization skill so that agents can use the generative AI skills in CSM/FSM Configurable Workspace and in Core UI.


Before you begin

Role required: `wm_admin`

About this task

From the Now Assist Admin console, you can select the input tables, related lists, and fields for each input template of the work order task summarization skill.

Procedure

1. Navigate to **Admin > Now Assist Admin**.
2. Select the **Now Assist Skills** tab.
3. In the **Customer** workflow group, select **FSM** to view the skills for the Now Assist for FSM features.
4. Activate and copy the Now Assist for FSM work order task summarization skill for customization.
 - a. On the work order task summarization feature card, select **View details**.
 - b. In the All available skills section, locate the work order task summarization skill and select **Activate skill**.
You can choose to make a copy of the skill before activating it.
 - c. Select the more actions icon  for the skill in the Active skills section, and create a copy that you can customize by selecting **Make a copy**.
The copy that you make is listed in the Active skills section.

Note:

You can only duplicate a work order task summarization skill or the KB generation skill. The fields for the skills that you can't duplicate have read-only values.

- d. Select the copied skill from the Active skills section to open it.
A guided setup leads you through the configuration of the general details, input, availability, display, review, and activation of the customized skill. When you complete the entire walk-through, the skill is activated.

5. In the General details step, fill in the fields.

For information about the inputs and triggers for each skill, see [Skill inputs for Now Assist for Field Service Management \(FSM\)](#).

- a. Enter a name and description for the skill.
- b. Select **Save and continue** to go to the next step.

6. Choose input data.

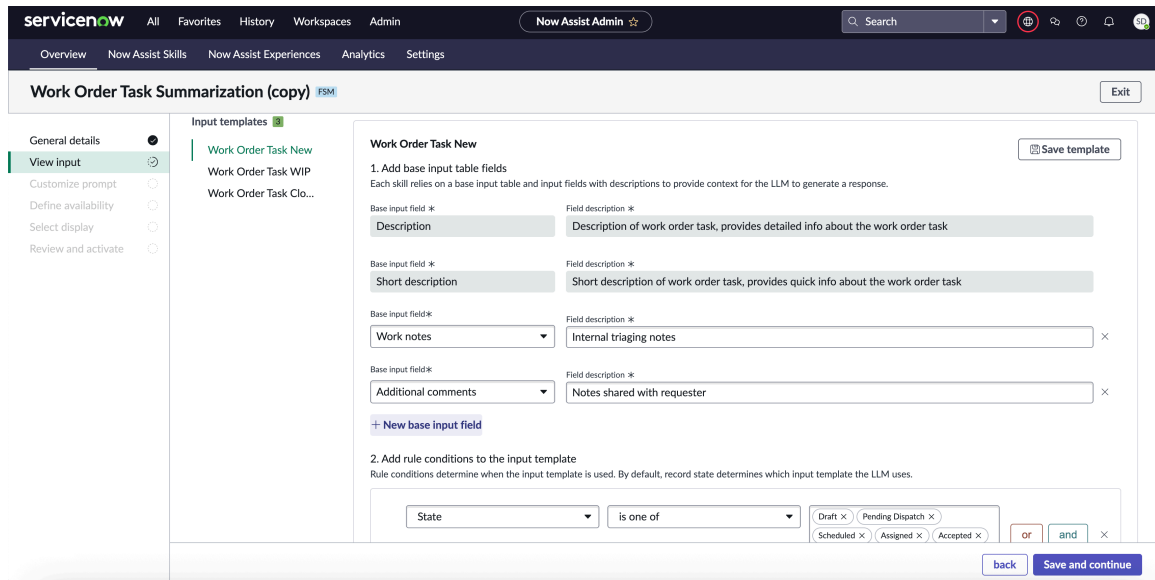
Configure the base input table fields and related lists for the different input templates (New, WIP, and Closed states) for the skill.

Each skill relies on a base input table and input fields with descriptions to provide context for the Now LLM Service to generate a response.

Select only those related tables that are offered with the base system as part of the input data.

- a. For each input template state (New, WIP, and Closed), select **+New base input field field** and configure the base input table fields.

Add multiple base input fields if more inputs are needed.



The following table lists the base input table fields and descriptions, including a relevant example.

Base input fields

Field	Description
Base input field	Field in the Incident table whose value this skill uses in its response.

Field	Description
	For example, Short description.
Field description	Description of the base input field value. For example, Short description of work order task, provides quick info about the work order task.

- b. For each input template state (New, WIP, and Closed), configure the rule conditions by using the condition builder to filter the data further.

The rule conditions determine when the input template is used. By default, the record state determines the input template that the Now LLM Service uses.

You can build the condition out further by selecting **+New condition set** and configuring additional parameters.

The following table lists the input template states.

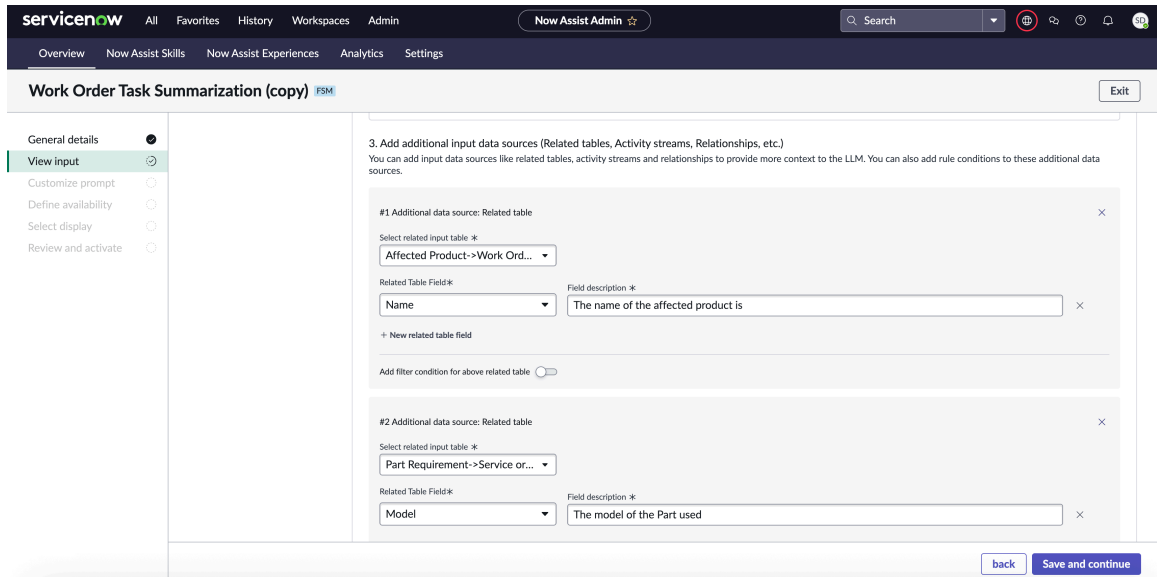
Input template states

State	Description
New	State is New.
WIP	State is Work in Progress.
Closed	State is Closed.

- c. For each input template state (New, WIP, and Closed), select **+New data source** to configure the additional related table, activity streams, and relationships as needed.

Adding the input data sources, such as the related tables, activity streams, and relationships provides more context to the Now LLM Service.

You can also add the rule conditions to these additional related table, activity stream, and relationship data sources.



The following table lists the data sources you can add to the input data.

Additional data sources

Data source	Description
Related Table	<p>Fields for a related list:</p> <ul style="list-style-type: none"> Select related input table Related table field Field description <p>Configuring the related table fields follows the same format as the base input table fields in the Choose input step.</p>
Activity: Email	Email that is attached to the work order task in the work order task summarization.
Relationships	

d. Select **Save and continue** to go to the next step.

7. Customize the prompt.

Evaluate the prompt utilized for each input template to confirm it meets your expectations. To review and modify the prompt, you can visit the Now Assist Skill Kit.

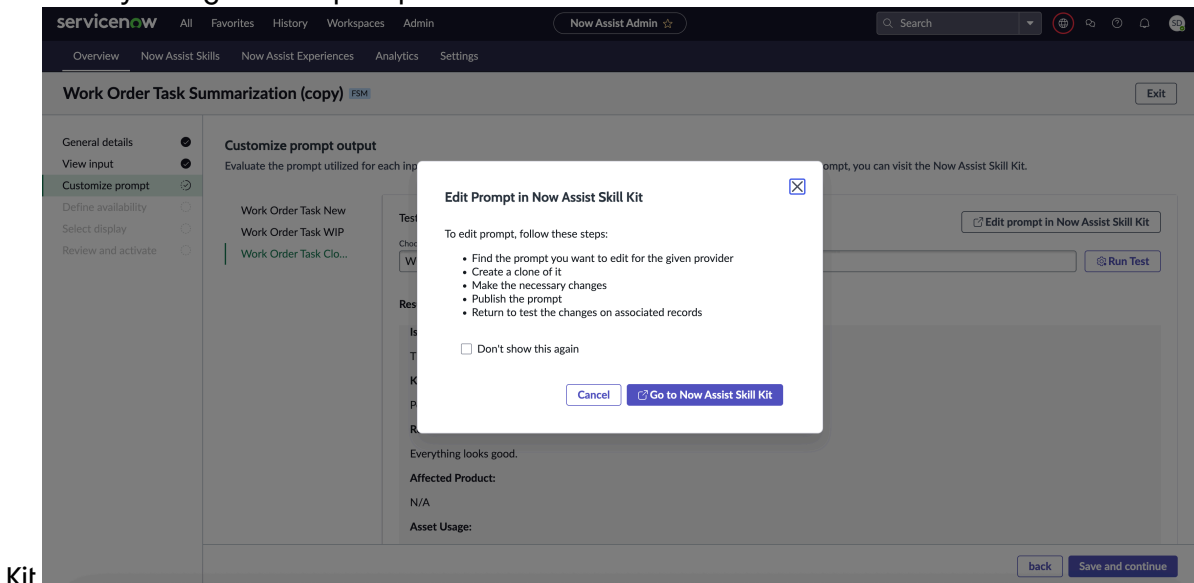
a. For each input template state (New, WIP, and Closed), select a work order task record in the Test response section, and test the prompt response output format by selecting **Run Test**

The following table lists the mandatory prompt headers.

Mandatory prompt headers

Input template state	Mandatory prompt header
New	Issue
Work in progress	<ul style="list-style-type: none"> ▪ Issue ▪ Key Actions Taken
Closed	<ul style="list-style-type: none"> ▪ Issue ▪ Key Actions Taken ▪ Resolution

b. Select **Edit prompt in Now Assist Skill Kit to make necessary changes to the prompt in the Now Assist Skill**



c. Select **Save and continue to go to the next step.**

8. Define availability.

Define how the skill will be available to users.

a. Configure the skill to be always available to users, or select the conditions that must be met before the skill is available.

Selecting **Customize skill availability** displays a condition builder to filter the data further.

b. Select **Save and continue to go to the next step.**

9. Select display.


Configure where to display the incident summarization.

a. Select either **In-product**, or **Now Assist panel**.

- **In-product:** When selected, Now Assist skills are displayed in all ITSM products (on forms and in workspaces).

For the skills that appear in-product, select the down arrow to identify the roles that can use the skill.

- **Now Assist panel:** When selected, Now Assist skills are available in the Now Assist panel.

If you don't see this option, you must activate the Now Assist panel. For more information, see [Activate Now Assist panel standard chat](#) .

For the skills that appear in the Now Assist panel, select the down arrow to identify the roles that can use the skill.

b. Select **Save and continue** to go to the next step.

10. Review and activate.

Review your choices and select **Activate** to complete the skill customization.

You can now select **Summarize** from a work order task record and generate the custom work order task summary.

Customize a KB generation skill in Now Assist for Field Service Management (FSM)

If you have the admin role, you can customize the Now Assist for FSM KB generation skill so that agents can use the generative AI skills in CSM/FSM Configurable Workspace and in Core UI.

Before you begin

Role required: wm_admin

About this task

The out-of-the-box (OOB) KB is generated for the following states: Close Complete, Close Incomplete, and WIP. From the Now Assist Admin console, you can duplicate and customize the availability of the KB generation skill.

Procedure

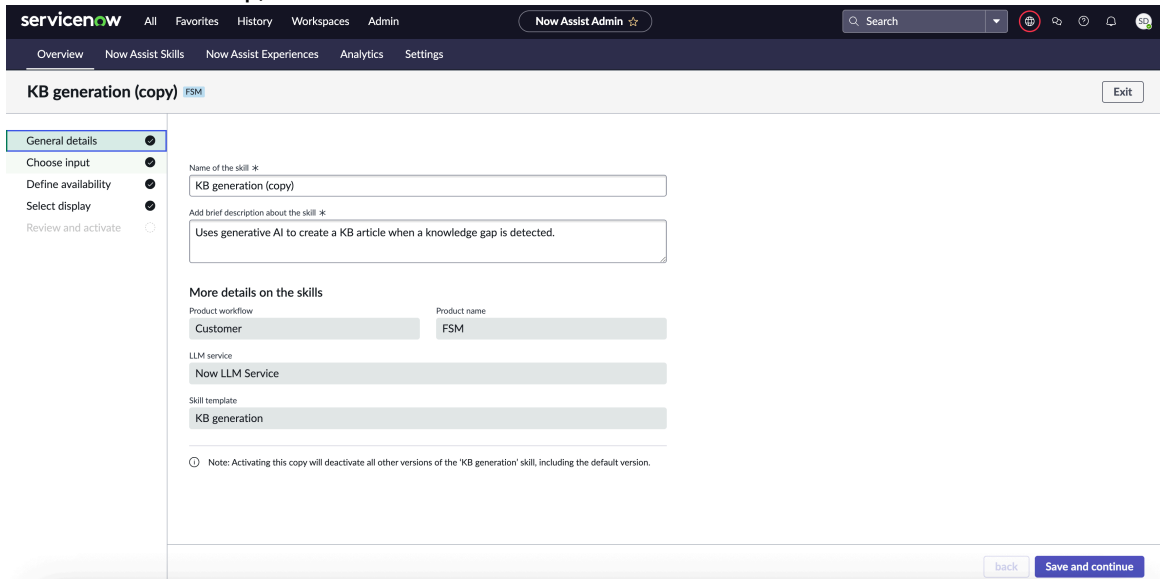
1. Navigate to **All > Now Assist Admin > Skills**.
2. In the **Customer** workflow group, select **FSM** to view the skills for the Now Assist for FSM features.
3. Create a copy of the Now Assist for FSM KB generation skill and customize the input fields.

- a. On the KB generation skill feature card, select the more actions icon .

- b. Select **Make a copy**.

A guided setup leads you through the configuration of the general details, input, availability, display, review, and activation of the customized skill. When you complete the entire walk-through, the skill is activated.

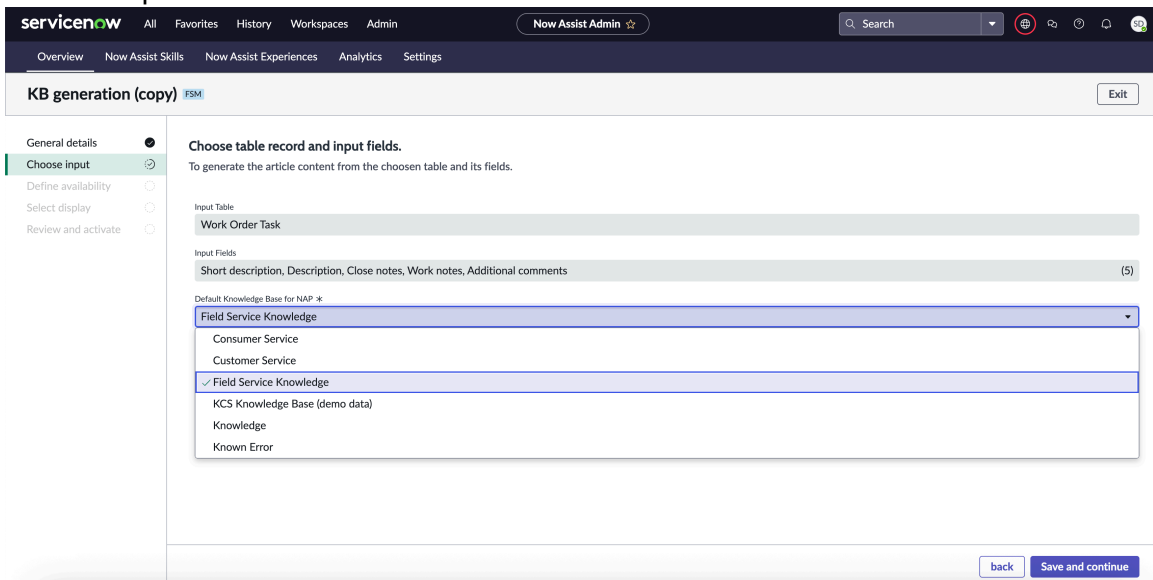
4. In the General details step, fill in the



fields.

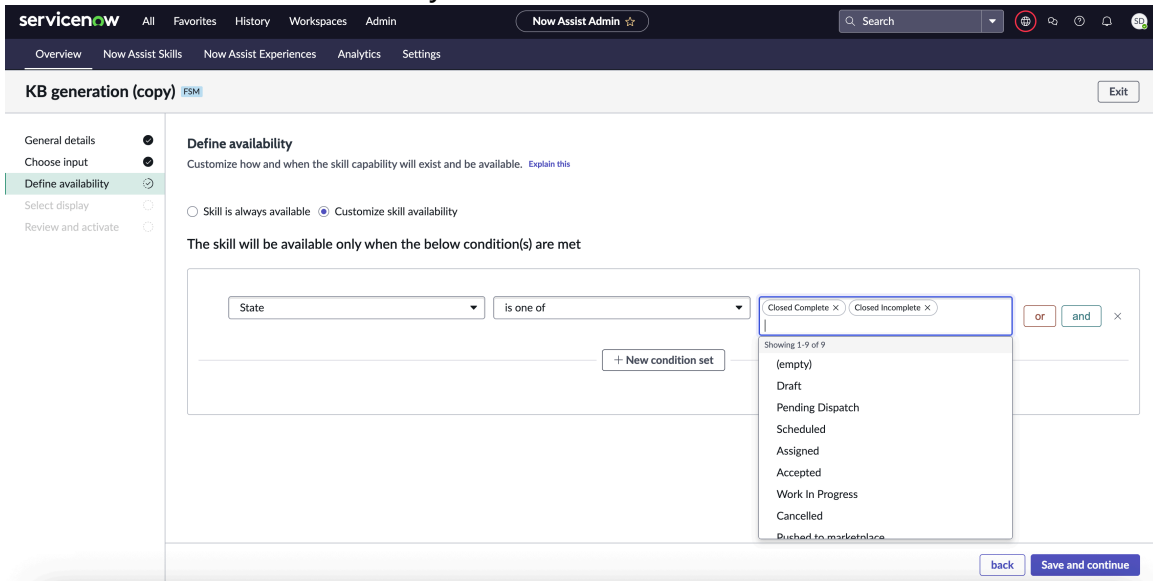
- a. Enter a name and description for the skill.
- b. Select **Save and continue** to go to the next step.

5. View the input data.



- a. The table record and input fields are read-only.
- b. Select the **Default Knowledge Base for Now Assist panel**.
- c. Select **Save and continue**.

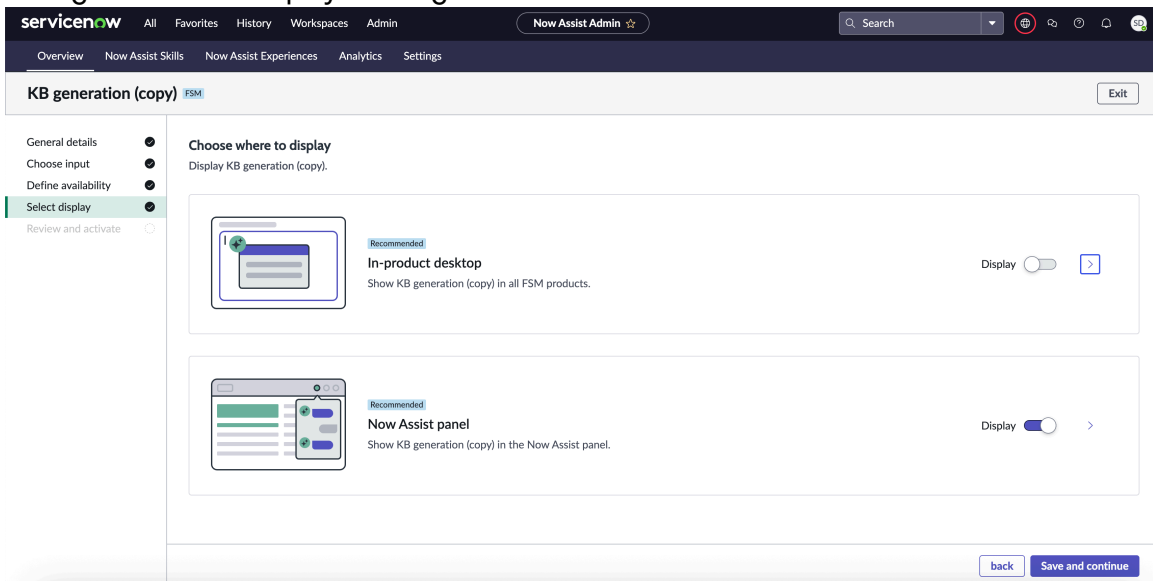
6. Define how the skill is available to your users.



- a. Configure the skill to be always available to users, or select conditions that must be met before the skill is available. Selecting **Customize skill availability** displays a condition builder to filter the data further.

- b. Select **Save and continue** to go to the next step.

7. Configure where to display the KB generation.



- a. Select either **In-product**, or **Now Assist panel**.
 - **In-product:** When selected, the Now Assist KB generation skill is displayed on the forms and workspaces.

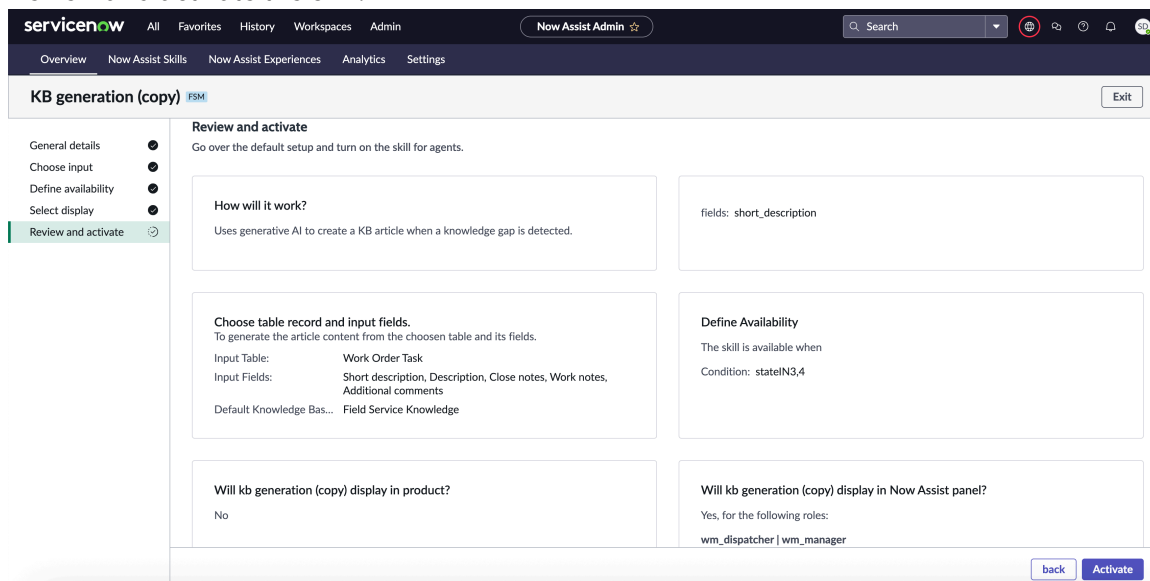
For the skill to appear in the KB product, select the down arrow to identify the roles that can use the skill. The only supported roles are `wm_manager` and `wm_dispatcher`.

- **Now Assist panel:** When selected, the Now Assist KB generation skill is available in the Now Assist panel.

For the skill to appear in the Now Assist panel, select the down arrow to identify the roles that can use the skill. The only supported roles are `wm_manager` and `wm_dispatcher`.

b. Select **Save and continue** to go to the next step.

8. Review and activate the skill.



Review your choices and select **Activate** to complete the skill customization.

Create an Assistant for Field Service Management

Set up a Now Assist in Virtual Agent to help Field Service technicians summarize work order tasks and find relevant Knowledge Base articles to complete their tasks efficiently from the Mobile Agent[®] application.

Before you begin

Role required: `wm_admin`

The Field Service Mobile plugin (`com.sn_fsm_mobile`) must be installed to use Now Assist in Virtual Agent in mobile.

About this task

The Now Assist in Virtual Agent for FSM, available OOTB, enables agents to ask questions and get specific answers found in Knowledge Base articles. It sources the article used to provide the answer and provides the relevant answer found there. By providing immediate access to essential information, the Now Assist in Virtual Agent for FSM enables technicians to resolve issues more swiftly and accurately, ultimately improving service quality and customer satisfaction. This setup is required to see the Now Assist in Virtual Agent for Field Service Mobile Agent[®] application. The following steps guide you through the process of activating this virtual agent to optimize your Field Service Management.

To set up and control who has access to the AI agents and the workflows they manage, see [Implement access control in Now Assist AI agents](#).

Procedure

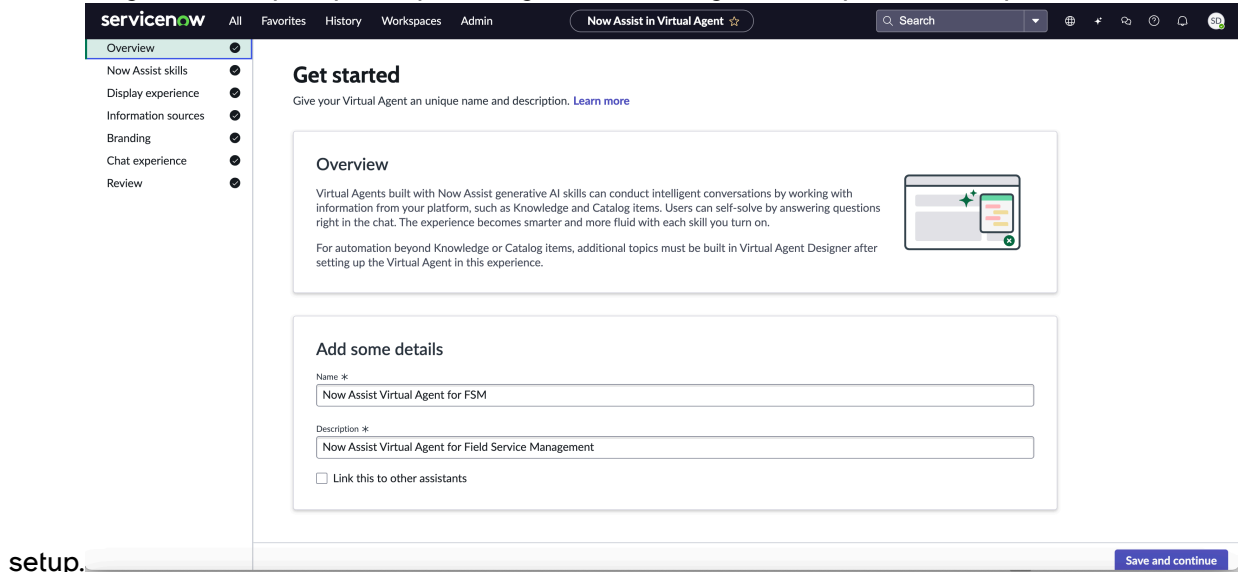
1. Navigate to **All > Conversational Interfaces > Assistants**.
2. Select **Now Assist Virtual Agent for FSM**.

Note:

If you select one of the default assistants, you might see some inapplicable options. These options are a part of the menu by default and won't affect your task.

3. Review each of the seven guided setup steps:

All of the guided setup steps are preconfigured. No changes are required to complete the



setup.

Guided setup steps

Guided Setup Steps	Description
Overview	In the Add some details section, provide a unique name and description for your Virtual Agent.
Now Assist Skills	Enable Now Assist Q&A and Now Assist topics skills.
Display Experiences	Set the display experience for mobile to Now Assist for FSM.
Information Sources	Select the knowledge table as the information source.
Branding	Set the branding for mobile to Now Assist for FSM.
Chat Experiences	Manage greeting, closing, and fallback messages.
Review	Review your choices and, optionally, test your virtual agent.

4. Select **Continue and Save** after reviewing each step.
5. Select **Turn on** after the final review step.

Using Now Assist for Field Service Management (FSM)

You can use Now Assist for Field Service Management (FSM) to generate work order task summaries.

Generate a work order task summary

Generate a summary directly from the work order task record.

Before you begin

Role required: wm_qualifier, wm_dispatcher, wm_agent

Procedure

1. Navigate to a work order task.
2. Select **Summarize**.

Result

A summary is generated for the work order task.

Example: Generate a summary for a work-in-progress task

Alex the agent is finishing a printer repair task. To wrap up the task, they generate a summary using the procedure.

Work Order Task summarized by Now Assist

Issue:

- The customer reported that their Canon printer is not responding when trying to print or copy.

Actions Taken:

- Initial Assessment: Confirmed the issue and determined that the printer is ready for scanning but unresponsive for printing or copying.
- Paper Tray Check: Ensured there was no physical obstruction or mismatched paper size in the paper tray.
- Error Code Analysis: Reviewed the printer's display for error codes but none were displayed.
- Restart: Instructed the user to perform a full restart of the Canon printer.
- Test Print and Copy: Asked the user to attempt a test print and copy to see if the issue persisted.
- Driver and Firmware Update: Checked for any available driver or firmware updates for the Canon printer.
- Connection Check: Ensured the printer is properly connected to the computer and all cables are securely attached.
- Network Configuration: Reviewed the network settings and ensured the printer is connected to the correct network.
- Call Canon Support: Informed the user that they may need to contact Canon's customer support for more in-depth assistance or arrange for a technician to inspect and repair the printer.
- Documentation: Documented all actions taken to resolve the issue, including date, time, and outcomes.

What to do next

You can mark the summary as helpful or unhelpful, copy the summary, or refresh to generate the summary again.

Generate work order task closure summaries in the Mobile Agent application

Generate work order task closure summaries in the Mobile Agent app to create detailed notes and close tasks faster.

Before you begin

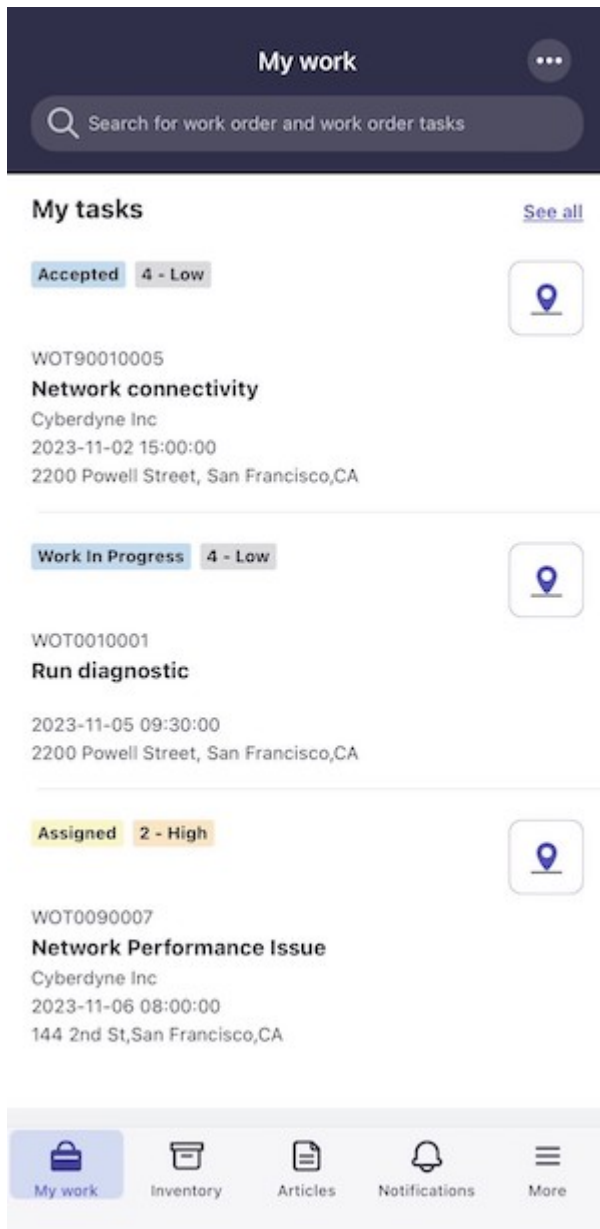
Agents can only generate summaries for the work order tasks that are assigned to them. The work order task must be in the **Work in Progress** state. Work notes must have at least 200 words to generate a summary.

For more information on how to close work order tasks, see [Close a complete work order task on a mobile device](#).

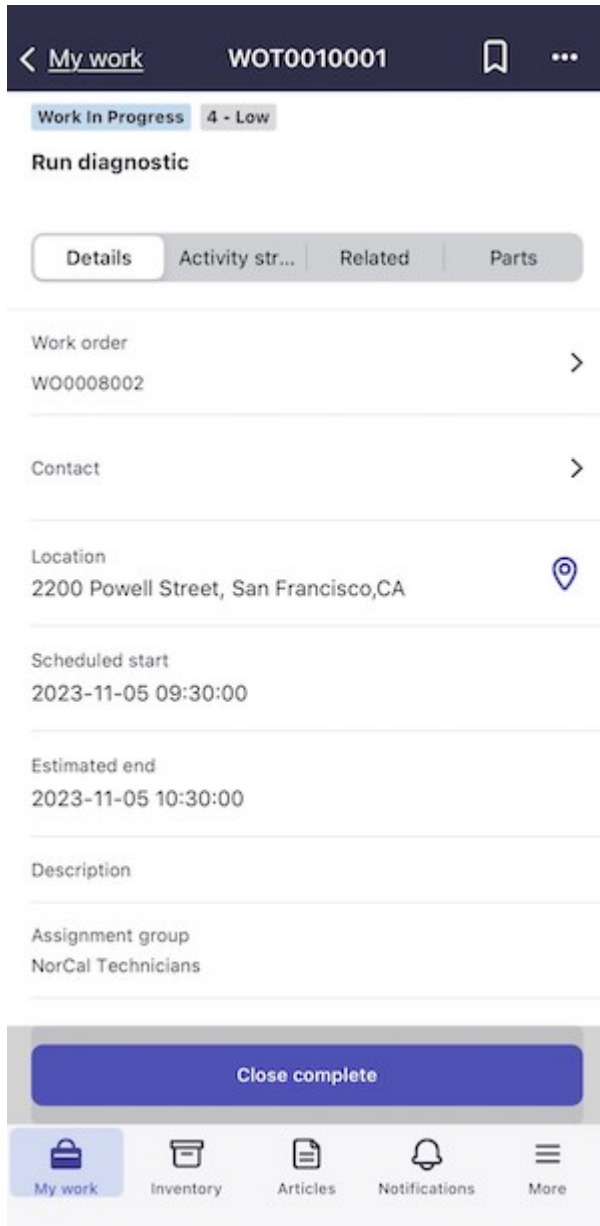
Role required: agent

Procedure

1. Navigate to **My work**.
2. In the My Tasks section, select the work order task that you want to close.

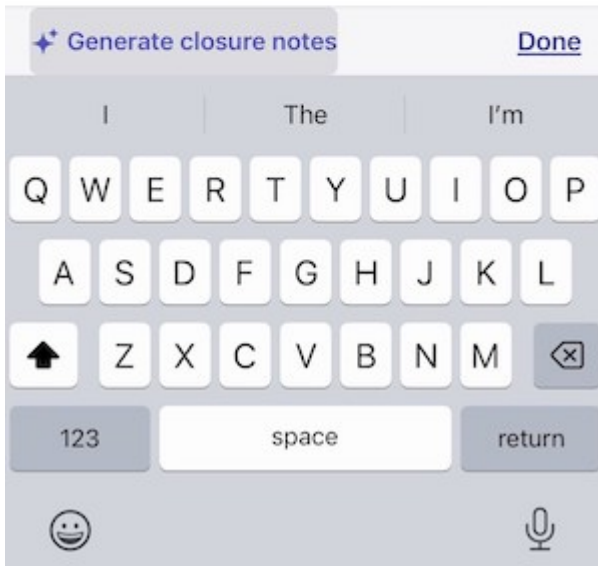
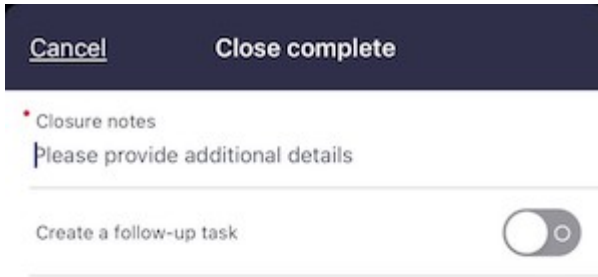


3. Tap **Close Complete**.



4. Tap the **Closure notes** field.

5. Tap  **Generate closure notes.**



Result

A closure summary is generated for the work order task. You can edit the summary after it's generated. Because the information in these fields is automatically generated, it's a good idea to review the text and make sure that it's accurate.

Generate a knowledge article from the CSM/FSM Configurable Workspace and classic environment with Now Assist

As an agent, generate knowledge articles for closed work order tasks within the CSM/FSM Configurable Workspace and classic environment with Now Assist.

Before you begin

To generate a knowledge article for a work order task, the work order task must be in a closed complete or closed incomplete state. Additionally, the work order task must not already have a knowledge article linked to it.

The following system property configurations are required so that agents can use the Knowledge Centered Service (KCS) template when generating knowledge articles.

- Install the Knowledge Management Advanced plugin. For details, see [Activate the Knowledge Management Advanced plugin](#).
- Enable Knowledge Centered Services (KCS) for FSM by setting the system property `sn_fsm.enable_knowledge_kcs` to true. Otherwise, Now Assist uses the standard template.

To enable an agent to see the Now Assist experience on the Create Article page, ensure that the following knowledge base generation criteria is configured:

- The Customer workflow, FSM, and Platform workflow knowledge skills are activated.
- In the Now Assist Admin console, ensure that the following criteria are in place:
 - The table record and input fields must be specified.
 - Conditions for the skill availability must be specified from the list of attributes.
 - Display of the knowledge base generation feature In-product and the Now Assist panel must be specified.
- **Create Article** must be configured to apply the supported template; For example, Standard and KCS article HTML.
- Currently, only the **Create Article** experience is available.

Role required: `wm_dispatcher`, `wm_manager`

About this task

In the FSM Configurable Workspace and classic environment, you can generate the knowledge article information for a work order task by selecting **Create Knowledge** on the work order task record. This UI action displays the Use AI to draft this article modal. By using this modal, you can choose to write the article yourself or draft an article with Now Assist and review and edit the knowledge article text.

Procedure

1. Navigate to **Workspaces > CSM/FSM Configurable Workspace**.
2. Open a work order task that is assigned to you.
The work order task record state should be Closed.
3. Create the article by selecting **Create Knowledge** from the UI actions for the work order task record.

i Note:

The **Create Knowledge** UI action is only visible when a work order task doesn't have an existing knowledge article associated with it.

4. In the Create article modal, select a knowledge base and an Article template, if displayed.

i Note:

If no options are displayed, the default template selected by your administrator in the Now Assist Admin console is used.

5. Select **Create Article**.
6. In the Use AI to draft this article modal, select **Yes, draft with Now Assist**.

i Note:

When creating an article using Now Assist, once the process is triggered, it can't be stopped. Now Assist continues to generate the article even if you close the modal.

- From the Select options modal, select the **Knowledge base** in which you would like to publish the article and, the **Article language** to be used to generate the article.

i Note:

For more information on language selection, see [Generate a Knowledge article using multi-language support](#).

- Select **Continue**.

- Choose up to five relevant work order tasks in the new modal to generate the article and select **Continue with the selected tasks**, otherwise select **Cancel**.

i Note:

If no similar work order tasks exist, this modal will not appear, and the article will be created. The generated article, based on the chosen relevant records, will be linked to both the account work order task and all the relevant work order tasks selected.

- Optional:** Once the article appears in a new tab with a unique ID number for the knowledge article, you can click the sparkle icon to **Elaborate** or **Shorten** the selected text.

- Select **Insert** to include the modified text, or manually update the text.

- Review the Now Assist generated article and select **Submit** or **Publish**.

The Now Assist success message disappears indicating that it is no longer a Now LLM Service generated article.

Summarize a Sidebar discussion

Generate a summary of the Sidebar discussions between agents, dispatchers, and subject matter experts by using the Sidebar summarization skill in the Now Assist for Field Service Management (FSM) application.

Before you begin

Role required: wm_dispatcher, wm_manager

About this task

You can do these actions using Sidebar summarization:

- Summarize the Sidebar discussion at any point during the discussion using the /Summarize quick action.
- Share the Sidebar discussion to the work notes.
- Provide feedback for the summary.

i Note:

The Sidebar discussion summarization skill is on the chat skill card in the Customer group.

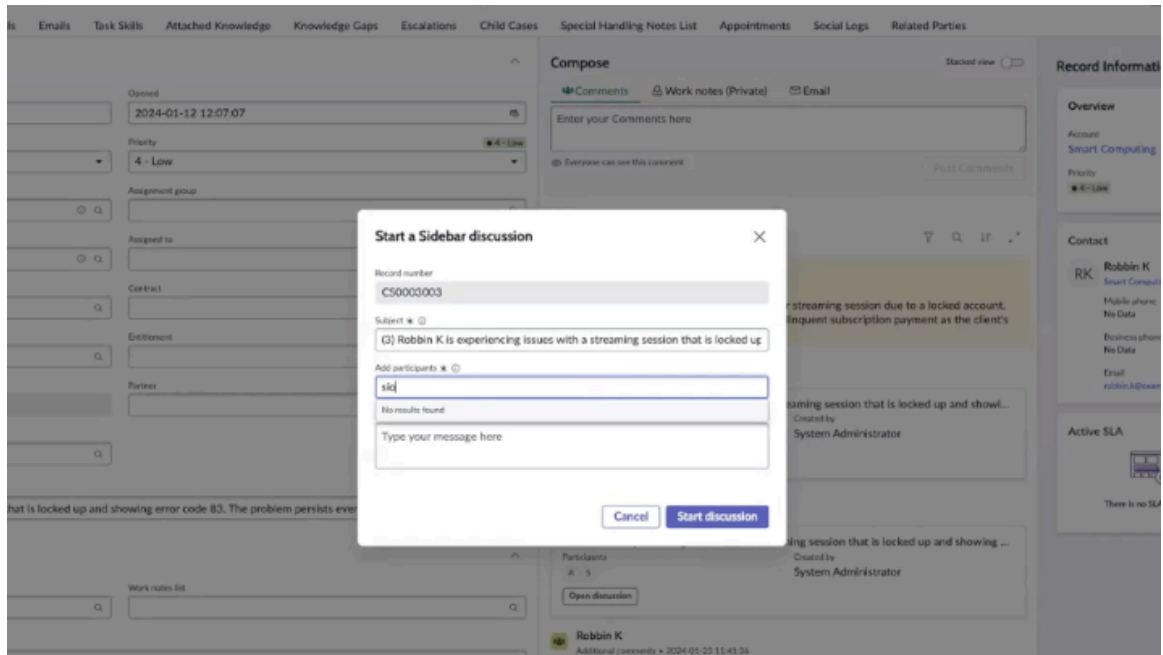
Procedure


- Navigate to **Workspaces > CSM/FSM Configurable Workspace** and open a work order task that supports Sidebar discussion and summarization.
- Choose an existing discussion, or start a new discussion.

To start a new discussion, follow these steps.

- a. Select **Discuss**.
- b. Add participants in the **Start a Sidebar discussion** modal.
- c. Select **Start Discussion**.

Sidebar discussion modal



3. Generate a summary of the Sidebar discussion during the conversation either by using the Summarize quick action (enter /Summarize in the Active sidebar discussion window), or by selecting the quick action icon ().
4. After summarizing the Sidebar discussion, you can add it to the work notes, and provide feedback about it.

Summarize a Sidebar discussion on the Now Mobile Agent application

On the Mobile Agent application, generate a summary of the Sidebar discussions between agents, dispatchers, and subject matter experts by using the Sidebar summarization skill in the Now Assist for Field Service Management (FSM) application.

Before you begin




Role required: wm_agent

Ensure the Sidebar for Field Service Management plugin (com.sn_fsm_sidebar) is activated. For more information, see [Activate Sidebar for the Field Service Mobile Agent application](#).

About this task

Summarize the Sidebar discussion at any point during the discussion using the /Summarize quick action.

Procedure

1. Navigate to a Sidebar discussion.
 - To view discussions for a specific work order task, navigate to the work order task and select the **Record Sidebar** () icon.
 - To view all discussions, select the **Global Sidebar** () icon.
2. Tap a discussion.
3. Generate a summary of the Sidebar discussion during the conversation either by using the Summarize quick action (enter /Summarize in the Active sidebar discussion window), or by selecting the quick action icon () .

Summarize a record using Now Assist in Virtual Agent

You can create a summary of a work order task record using the Now Assist in Virtual Agent directly from the Mobile Agent application.

Before you begin

Role required: wm_agent

About this task

You can summarize a record by launching Ask Now Assist from the home screen and typing "summarize a record" or by navigating to a specific work order task record and using the Quick actions menu. Both methods provide a quick and efficient way to generate a summary.

Procedure

1. Navigate to **My work**.
2. From quick actions, select **Ask Now Assist**.

For Android users, this icon appears as a plus symbol () .

For iOS users this icon appears as an ellipsis symbol ()

3. In the Now Assist panel, type a "summarize a record" and follow the prompts.
4. Tap **Send**.
5. Tap **Done**.
6. **Optional:** Tap the plus icon to begin a new conversation.

Summarize a record directly from a work order task record using Now Assist in Virtual Agent

Generate summary from the work order task record.

Before you begin

Role required: wm_agent

https://player.vimeo.com/video/1101340558?h=a47c179e09&badge=0&autoplay=0&player_id=0&app_id=58479

Procedure

1. Navigate to **My work**.
2. In the **My tasks** section, tap a work order task record.
3. Tap the **Quick actions** icon in the top right corner of the screen.
4. Tap **Ask Now Assist**.
5. Tap **Show all my options**.

Note:

Any skills configured by an admin for Now Assist in Virtual Agent are shown.

6. Tap **Summarize a record**.
7. Tap **Done**.
8. **Optional:** Tap the plus icon to begin a new conversation.

Use conversational search for technician support

Ask natural language questions and get quick, accurate answers from the Knowledge Base, including additional information and related steps for effective help, all from the Mobile Agent app.

Before you begin

Role required: wm_agent

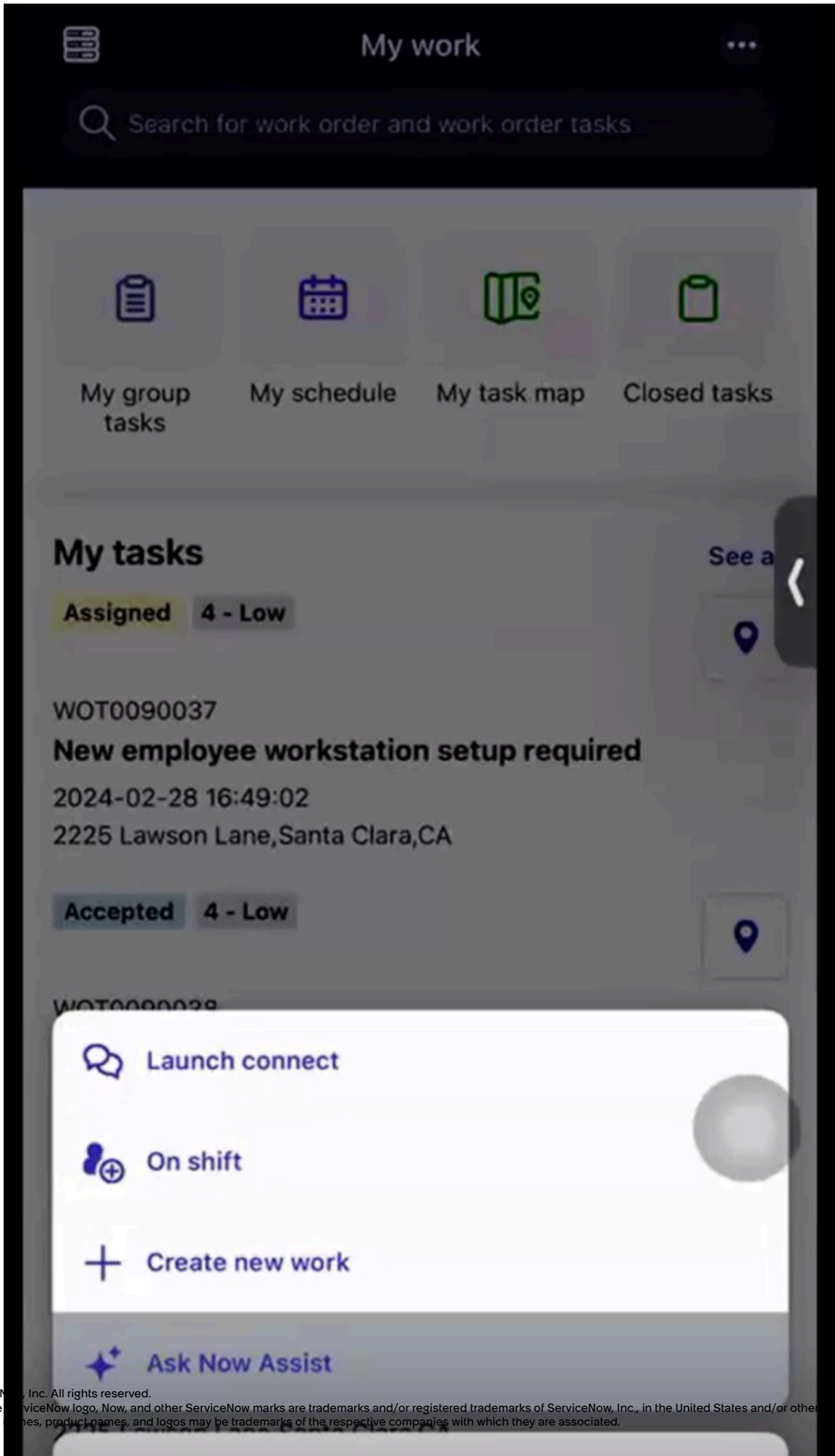
About this task

https://player.vimeo.com/video/1101327474?h=35bd66dbdd&badge=0&autoplay=0&player_id=0&app_id=58479

You can use natural language processing to pose questions in your own words and receive immediate, precise responses from the Knowledge Base. The conversational search complements these answers with relevant details and step-by-step guidance, which enhances your ability to diagnose and resolve issues efficiently. This approach ensures that you have all the necessary information to perform their tasks accurately.

Procedure

1. Navigate to **My work** or **My tasks**.
2. From quick actions, tap **Ask Now Assist**.



3. In the Now Assist panel, type a question.
For example: "How do I install a router?"
4. Tap **Send**.
5. **Optional:** Tap **Sources** to check the origin of the information.
6. Tap **Done** to end the conversation.
7. **Optional:** Tap the plus icon to begin a new conversation.