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Zurich Service Management

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Service Management

Service Management (SM) refers to the ServiceNow service management applications you install, such as Facilities Service Management. Each of these applications allow you to manage business functions that require a request-type workflow where requests are approved, qualified, assigned, and completed.

Activate Service Management

The Service Management Core plugin is activated automatically when you activate any service management application.

Before you begin

Role required: admin

About this task

For information on subscribing to a service management application, see Activate Facilities Service Management.

The Service Management Core plugin also activates the following plugins if they are not already active.

- Automatic Assignment
- Asset Management
- Process Flow Formatter
- State Flows
- Knowledge Management V3
- Skills Management
- Territory Management
- Managed documents
- Task Activities
- Service Management Geolocation
- Encryption Support
- Workbench
- Checklist

Related topics

Process flow formatter

State flows

Managed Documents

Activate other Service Management applications

After the Service Management Core plugin has been activated, you can activate other SM applications, such as Field Service management and facilities service management. You can also activate CMS portals for each of these SM applications to add them to the Service Management Portal.

Other SM plugins to activate

Plugin	ID	Description
Facilities Service Management	com.snc.facilities.core	Manages facilities requests and enables users to report and track requests by their location on a floor plan. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details. Facilities Service Management is being prepared for future deprecation. It will be hidden and no longer activated on new instances but will continue to be supported until deprecation. Workplace Service Delivery provides the latest experience for this functionality. For details, see the KB0867184 Deprecation Process article in the Now Support knowledge base.
Facilities Service Management CMS Portal	com.snc.facilities.core.cms	Displays the Facilities Service Automation SM application on the Service Management portal. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.
Field Service Management	com.snc.work_management	Provides support for scheduling and managing on location work.
Field Service Management CMS Portal	com.snc.work_management.cms	Displays the Work Management SM application on the Service Management portal. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.
Finance Service Management	com.snc.finance_service_automation	Deprecated Feb 1, 2023.
Finance Service Management CMS Portal	com.snc.finance_service_automation.cms	Displays the Finance Service Automation SM application on the Service Management portal. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.

Other SM plugins to activate (continued)

Plugin	ID	Description
HR Service Delivery: Core	com.snc.hr.core	Provides a basic data and security model for HR systems.
HR Service Delivery: Core CMS Portal	com.snc.hr.core.cms	Displays the Human Resources Service Automation SM application on the Service Management portal. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.
Legal Service Management	com.snc.legal_service_automation	Deprecated Feb 1, 2023.
Legal Service Management CMS Portal	com.snc.legal_service_automation.cms	Displays the Legal Service Automation SM application on the Service Management portal. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.
Marketing Service Management	com.snc.marketing_service_automation	Deprecated Feb 1, 2023.
Marketing Service Management CMS Portal	com.snc.marketing_service_automation.cms	Displays the Marketing Service Automation SM application on the Service Management portal. Activation of this plugin on production instances may require a separate license. Contact ServiceNow for details.

Service management states

From creation until closure, SM application requests for work (for example, work orders and facilities requests), and their respective tasks follow a life cycle tracked by the **State** field in Field Service Management and Facilities Service Management.

The life cycle is controlled through business rules and UI actions that are updated by the system automatically.

Note:
The **State** field on the record is always read-only.

Related topics

Customize a state flow

State flow customization

State flows control the sequence in which records transition between states in Service Management applications.

An administrator can perform the following tasks:

- Add or delete states.
- 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 clicks 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. Creating custom state flows requires scripting knowledge.

Note:
Users with the wm_admin role can create, read, update, and delete only work order flows and work task flows. Users with the facilities_admin role can create, read, update, and delete only facilities request flows and request task flows. Users with the wm_admin role cannot manipulate facilities records, and users with the facilities_admin role cannot manipulate work order records.

How SM request and 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 an SM application 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.

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.

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

You can create a custom state flow for processing that must occur 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 only need to define the end state. In some cases a state flow can have a starting state only, such as when you need to 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.

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. 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.

2. 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 an important part of the state flow process and 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.

Related topics

State flow customization

Request states

Request task states

Field controls in state flows

You can define controls for individual fields that are enforced when a record transitions between states.

Settings in the Field Controls section of the State Flow form enable you to apply field controls when the system detects a specified state transition or when the end state is the current state when the form is opened. The control is applied only to existing fields on the form. State flows cannot 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 mandatory.

Configure state flow records with an ending state only and create the correct behavior for every ending state you want to control. This ensures 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 is possible that your settings can be changed by existing UI policies, which execute after client scripts.

Related topics

Request states

Request task states

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

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. 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. Register a new event on the Work Order Task [wm_task] table called `task.closed`.
2. Navigate to **State Flows Work Task Flows**.
3. Open the state flow record **Close Complete**.
4. 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

You can rebuild state flows when a mismatch between existing and new sys_ids occurs.

When you use an XML file to import a state flow record 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 are otherwise identical.

When matching fails, the start and end states of affected records are left blank 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.

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 all the state flows 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 Cleanup

Element	Deleted When
• UI action • Business rule • Dictionary override	The state flow that created it is deleted.
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

Related topics

- State flow customization
- Request states
- Request task states

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**.

Implications of disabling SM state flows

State flows are used by SM applications to control how a work order or request automatically transitions from one state to the next. When state flows are disabled, various aspects of the ServiceNow system are also changed, as described here.

Review the following implications before setting the **Enable state flows** configuration option to **Off**. After the configuration is saved, state flows cannot be re-enabled from the user interface.

When state flows are disabled, the state transition-related behavior of the following business rules, UI actions, and security rules are affected.

- **Business rules on requests:**
  - Group change validation
  - Move tasks to pending assignment
  - Request-driven dispatch
  - Unassigned
  - Verify work notes
- **Business rules on tasks:**
  - Apply dispatch method
  - Populate schedule
  - Populate schedule - new SOT (service order task)
  - Transitions
  - Unassigned
- **The following business rules run partially:**
  - The part of **Build scratchpad and display info messages** that shows an error message if a task is pending dispatch and auto-assignment fails is disabled.
  - For the **Validate changes** business rule, the only part that runs is when the system checks for work notes and rolls them up.
- **UI actions on requests:**
  - When the **Spam** button on the request form is clicked, the state is not changed, but the work notes indicate that the request was closed as spam.
- **UI actions on tasks:**

- Assign to me
- View task on map
- New

- **Security rules:**
  - State-based aspects of security rules no longer apply. For example, when state flows are enabled, the **Short description** field is not editable when a request or task is closed complete, incomplete, or canceled. When state flows are disabled, the **Short description** is always editable.
  - Role-based aspects of security rules continue to apply when state flows are disabled.
- **Additional changes when state flows are disabled:**
  - The process flow formatter is removed from request and task forms.
  - The **State** field can be edited on request and task forms.
  - The following configuration fields are changed:
    - **Process lifecycle** is set to **request-driven**.
    - **Assignment method for requests** is set to **manual**.
    - **Assignment method for tasks** is set to **manual**.
    - **Approval for new request required** is disabled.
    - **Qualification is required for new requests** is disabled.
    - **Agent must accept or reject the assigned task** is disabled.
    - **Use dispatch queue** is disabled.

Re-enable state flows

When service management state flows have been disabled, they cannot be re-enabled from the user interface.

About this task

State flows can, however, be re-enabled by running a script for each service management application.

Procedure

For each service management application, run the following script:

```
var now_GR = new GlideRecord('sm_config');
 gr.get('name', '{YOUR_APP_NAME}'); //this can be looked up by
 navigating to
 the sm_config list
 gr.use_sf = true;
 gr.update();
```

Service Management Core installation reference

Service Management Core includes several feature plugins. Each of these plugins installs several types of components in support of the service management process.

Installed with Service Management Core

Several types of components are installed with the Service Management Core plugin.

Demo data is available with Service Management Core.

Tables installed with Service Management Core

Tables are added with Service Management Core.

Table	Description
Part Requirement [cmdb_model_part_requirement]	Defines a relationship between a service order task an an asset (part) required to complete this task.
Service Order Model [cmdb_serviceorder_product_model]	Stores service order templates.
Service Task Model [cmdb_servicetask_product_model]	Stores service task templates.
Service Management Flow [sf_state_flow]	State flows for Service Management.
Service Order Flow [sf_sm_order]	State flows for service orders.
Service Task Flow [sf_sm_task]	State flows for service order tasks.
Asset Usage [sm_asset_usage]	Defines relationship between a service order task and the assets used to complete this task.
SM Category [sm_category]	Links a single service order template to a service order category value.
SM Config Module [sm_config_module]	Links a configuration to a set of navigation modules that are shown or hidden based on configuration settings.
SM Config [sm_config]	Service management application configuration.
Service Management Incidentals [sm_incidentals]	Incidental items used to complete a service order task.
Service Order Groups Dependency [sm_m2m_group_dependency]	Dispatch groups that handle scheduling for assignment groups.

Table	Description
SM Model Application [sm_m2m_model_application]	Links SM applications to hardware and consumable models often used in part sourcing.
SM Model Knowledge [sm_m2m_model_knowledge]	Relates any knowledge page to any model.
Affected CI [sm_m2m_order_affected_ci]	Configuration items related to a service order.
Service Order Task Models [sm_m2m_somodel_stmodel]	Links service task models to service order models.
Task Affected CI [sm_m2m_task_affected_ci]	Configuration items related to a service order task.
Service Order Task Contract [sm_m2m_task_contract]	Defines a relationship between a task and contract.
Service Order Task Dependency [sm_m2m_task_dependency]	Defines a dependency between two service order tasks: downstream task cannot be started before upstream task gets completed.
Service Order Task Template Dependency [sm_m2m_task_template_dependency]	Defines a dependency between two service order task templates: downstream task cannot be started before upstream task gets completed.
SM Notification Rule [sm_notification_rule]	Service management notification rules.
Service Order [sm_order]	Defines and manages work that needs to be performed.
Part Requirement [sm_part_requirement]	Defines a relationship between a service order task and an asset (part) required to complete this task.
Service Task [sm_task]	Unit of work performed by one person in one session (one location, one time).
SM Template Definition [sm_template_definition]	Defines a field and value that will be included in a service order template.
Task Asset [task_asset]	Assets related to a task.

Properties installed with Service Management Core

Properties are added with Service Management Core.

Property	Description
Properties for service management core	
sm.template.minute.step	Default minute step for date time or time fields on service order template page. Can be overridden for a specific application by replacing "sm.template" with the appropriate property prefix. See application configuration record.
sm.template.hour.step	Default hour step for date time or time fields on service order template page. Can be overridden for a specific application by replacing "sm.template" with the appropriate property prefix. See application configuration record.
glide.autodispatch.debug	Whether auto dispatch engine should output logs when assigning tasks.

Roles installed with Service Management Core

Roles are added with Service Management Core.

Role title [name]	Description
personalize_read_dictionary	Role allowing service management application admins the ability to see fields when modifying field controls (for example, mandatory fields, read-only fields) on the state flow form.
sm_qualifier	Qualifier role used when creating SM applications. This role is a template only and it does not provide actual access to any navigation modules or records.
sm_agent	Agent role used when creating SM applications. Performs work on a task. This role is a template only and it does not provide actual access to any navigation modules or records.
sm_approver_user	Approver user role used when creating SM application. Approves requests. This role is a template only and it does not provide actual access to any navigation modules or records
sm_initiator	Initiator user role used when creating SM application. Grants UI access, as well as performing the same functions as Basic. This role is a template only and it does not provide actual access to any navigation modules or records.
service_fulfiller	Role allowing service management users the ability to see the Service Desk modules.
sm_admin	Admin user role used when creating SM application. Controls all data. This role is a template only and it does not provide actual access to any navigation modules or records
sm_basic	Basic user role used when creating SM application. Reads and creates requests, and follows up on those requests. This role is a template only and it does not provide actual access to any navigation modules or records.

Role title [name]	Description
sm_dispatcher	Dispatcher user role used when creating SM application. Schedules and assigns tasks to agents. This role is a template only and it does not provide actual access to any navigation modules or record.
sm_read	Read-only user role used when creating SM application. This role is a template only and it does not provide actual access to any navigation modules or records.
template_admin	Grants the ability to create and administer Service Management templates.

Script includes installed with Service Management Core

Script includes are added with Service Management Core.

Script includes	Description
PartRequirementStateHandler	Marks a part requirement Sourced or Delivered based on the transfer orders.
SMTemplates	Builds a service order and related tasks from an SM Template.
SMAutoAssignment	Javascript wrapper around SNC.SMAutoassignment that automatically determines property prefix needed.
SMStockRooms	Retrieves and creates personal stockrooms.
BaseSMControls	Provides functions used to control access to service management records like the configuration and notification rules. Modify the SMControls Script Include to make changes rather than modifying this Script Include.
SMConfigProcessor	Handles changes that are made to the configuration page. Also handles sending notifications set up on the configuration page.
SMTemplateHelper	Backend-code for the SM Template page. Should not be customized.
AppCreatorCMSCreation	Creates CMS pages for apps created by Service Management template.
SMDateRollup	Rolls up the dates from service order tasks to service orders.
SMI18nUtils	Utilities for internationalizing the Service Management and Configuration Pages.
SMAJAX	Handles Service management AJAX calls.
AJAXMileageCalculator	Calculates mileage costs for incidentals.
SMCIControls	Service Management CI controls for adding and removing CI's from Orders and Tasks.
SharedServiceUtils	Shared Service Utilities
SMSourcingDispatch	Contains methods supporting the Agent Schedule section in the lower portion of the Source popup.
SMStateFlowCreator	Methods for creating state flows for ESM-based applications.

Script includes	Description
SMAgentStatusAJAX	AJAX wrapper around the updateStatus function available in SMScheduleStatus.
SMDateValidation	Verifies that dates in service order tasks are valid and consistent with one another in terms of scheduling.
SMTask	Service Management Task utility functions.
AppCreatorKnowledgeCreation	Methods for "app creator" engine to create knowledgebase pages.
SMAgentStatus	Code for updating the "on schedule" and status of an agent.
SMAppCreator	Methods for creating Service management applications.
SMScheduleGrapper	Schedule APIs. Gets schedule times from a work order task in milliseconds. Actual times are given priority, if those are not available, return scheduled times.
SMTableCreator	Methods for creating tables for Service management applications
SMControls	Extension of BaseSMControls. Modify this script for controlling access to service management records like the configuration and notification rules
AssetUsageFilters	Reference qualifier filters for AssetUsage.
SMTaskDependency	Collection of methods that control the data integrity of the Service Order Tasks Dependency [sm_m2m_task_dependency] table.
AppCreatorCatalogCreation	Creates an SM application catalog.
SMAssetUsage	Asset Usage APIs
SMConstants	List of constants used in the State field of the Service Management (SM) flows (sm_order and sm_task) and extended tables (for example, wm_order, wm_task).
SMNotifRuleTables	Restricts tables that are displayed on the SM Notification Rule form to the request and task table of the application.
SMTransferOrders	Collection of methods that create or update service management-related transfer order lines.
SMPortalCreator	Methods for creating a portal and reports for SM-based applications.
WMSourcingAjax	AJAX calls used in the "Source" popup available from Work Orders and Work Order Tasks. Contains methods for displaying work order tasks and part requirements in the tree-section (left-hand side), deleting and copying part requirements using the tree, and retrieving task information and agent information for the lower section.
SMFilters	Filters for service management.
SMUpgradeManager	Handles finding SM application items that need upgrades, storing information, upgrading.
SMTemplateMigration	Handles migrating SM templates from previous version of Geneva.

Client script includes installed with Service Management Core

Client scripts are added with Service Management Core.

Client script includes	Table	Description
Hide excluded fields	SM Config [sm_config]	Hide sm_config fields based on exclusion list.
Start work read-only (exp. travel chg)	Service order task [sm_task]	Start work read-only when travel is required and not started.
Start work read-only when travel is required and not started	Service order task [sm_task]	Displays an error after a location change when no dispatch group or assignment group covers the location of the work order task.
Show or hide/clear contract field	Service Management Incidentals [sm_incidentals]	If type is Vendor cost, then show the contract field. Otherwise, clear and hide the contract field.
check order of start date and end date	Service order task [sm_task]	Verify that the start date happens before the end date.
Update Assigned to (Assign Group change)	Service order [sm_order]	Update Assigned to when Assignment group changes: - clear the Assigned to field.
Ci update	Service order [sm_order]	Updates the associated asset and location based on changes to the affected CI.
Populate CI Location	Service order [sm_order]	Populates work order location based on CI location.
check_work_duration	Service order task [sm_task]	Verify that the work duration is not 0 or empty.
Calculate total amount - quantity	Service Management Incidentals [sm_incidentals]	Calculates the total mileage costs when the quantity changes.
Validate Estimated Travel Duration	Service order task [sm_task]	Ensure that the estimated travel duration does not carry into the expected start time.
Validate Scheduled Travel Start	Service order task [sm_task]	Ensure that the scheduled travel start (with its duration) is before scheduled work start.
Template selected	Service order [sm_order]	Populates form based on template values.

Client script includes	Table	Description
Populate Caller Location	Service order [sm_order]	Sets the location field when the caller is changed.
Check for group errors	Service order [sm_order]	Displays an error on load if no qualification group covers the location of the work order.
Hide unused related lists/fields	Service order [sm_order]	Hides related lists that are not relevant based on application configuration
Ci update	Service order task [sm_task]	Updates the associated asset and location based on changes to the affected CI.
New fields type control	SM Template Definition [sm_template_definition]	Displays the appropriate field type based on selection of field on template definition page.
Asset update	Service order [sm_order] [sm_order]	Updates the associated configuration item and location based on changes to the affected asset.
Field onload helper	SM Template Definition [sm_template_definition]	Displays the appropriate field type based on selection of field on template definition page (onload).
Read only task templates dependencies	Service Order Task Template Dependency [sm_m2m_task_template_dependency]	Makes the dependent field read only when creating task template dependencies in sm_m2m_task_template_dependencies table.
Make Location not mandatory	Stockroom [alm_stockroom]	Makes Location not mandatory for stockroom type field_agent
Calculate End Time (Duration change)	Service order task [sm_task]	Calculates Estimated End Time in a Work Order Task based on a change of estimated work duration.
Show error when no application installed	Service Order Model [cmdb_serviceorder_product_model]	Show error when no application installed.
Calculate total amount - cost per mile	Service Management Incidentals [sm_incidentals]	Calculates the total mileage costs when the quantity changes.
Priority assignment	SM Config [sm_config]	Set scheduling to true and hide consistent assignment of priority assignment is turned on.
Asset update	Service order task [sm_task]	Updates the associated configuration item and location based on changes to the affected asset.

Client script includes	Table	Description
Read only group dependencies	Service Order Group Dependency [sm_m2m_group_dependency]	Once set, fields are read-only.
Add sourcing UI Listeners	Service order task [sm_task]	Sets up event listeners for changes to travel duration, work duration, or expected work start so that they are automatically updated in the sourcing UI (if the task is opened via the sourcing UI).
check window_start	Service order task [sm_task]	Verify that window start is before window end.
Set required quantity read-only	Part Requirement [sm_part_requirement]	Sets the Required quantity field to read-only when the required number of assets are sourced for the part requirement
Show messages	Service order task [sm_task]	Shows messages if the expected due date for the task is after the requested due date of the request, or if auto-assignment does not work.
Calculate total amount - type	Service Management Incidentals [sm_incidentals]	Calculates the total mileage costs when the type changes.
Update Assigned to (Assign Group change)	Service order task [sm_task]	Update Assigned to when Assignment group changes: - clear the Assigned to field.
Hide group field	Service Task Model [cmdb_servicetask_product_model]	Hides the dispatch group field when dispatch queue is off
Hide state flow field	SM Config [sm_config]	When state flow is turned off, hide the field from the form.
Check TOs before reassigning	Service order task [sm_task]	When reassigning or unassigning a work order task, prompt user to cancel all transfer orders to personal stock rooms for a task if the task only has cancelable transfer orders.
Verify Group Post Dispatch Group Change	Service order task [sm_task]	Displays an error on load if no assignment group covers the location of the work order task.
Set Tables	SM Notification Rule [sm_notification_rule]	Limit the tables to the two possible tables, if none is chosen, set the first one as the default.
Calculate End Time (Start time change)	Service order task [sm_task]	Calculate the Estimated End Time based on Expected Start Time changing. Also checks for

Client script includes	Table	Description
		inconsistencies that may have been created with estimated travel start.
Update Model and Quantity based on Asset	Asset Usage [sm_asset_usage]	Synchronizes model and quantity information of an asset usage record based on the asset it references.
Read Only Order Affected Cis	Affected CI [sm_m2m_order_affected_ci]	Makes a field read only once a value is selected for that field.
Reset quantity	Service Management Incidentals [sm_incidentals]	When the type changes back to car rental, the Qty is set back to 1.
Read Only Task Affected CIs	Task Affected CI [sm_m2m_task_affected_ci]	Makes a field read only once a value is selected for that field.
Hide group field	Service Order Model [cmdb_serviceorder_product_model]	Hide the assignment group field if application is not request driven, hide the qualification group field if qualification is off.
Check TOs before reassigning	Service order task [sm_task]	When reassigning or unassigning a work order task, prompt user to cancel all transfer orders to personal stock rooms for a task if the task only has cancelable transfer orders.
Notify parent on submit	Part Requirement [sm_part_requirement]	Updates the Source tree whenever a new part requirement is created inside the Source popup window.
Show warning msg of templates upgrade	SM Config [sm_config]	Show warning message when the templates must be migrated.
Verify Group Fields	Service order task [sm_task]	Displays an error on load if no dispatch group or assignment group covers the location of the work order task.
Ensure no negative and decimal quantity	Part Requirement [sm_part_requirement]	Ensures the quantity required for a part is valid.
Read only task dependencies	Service Order Task Dependency [sm_m2m_task_dependency]	Making the dependent field read only on creating task dependencies in sm_m2m_task_order table.
Start work read-only (actual travel chg)	Service order task [sm_task]	Start work read-only when travel is required and not started. 'Schedule travel start' and 'Schedule start' are mandatory when 'Agent Track Time' is on.
Show warning message of disable SF	SM Config [sm_config]	Shows a warning message when state flows are disabled.

Client script includes	Table	Description
Populate from stockroom for drop off	Transfer Order [alm_transfer_order]	Sets the from stock room to the logged in user's personal stockroom when creating a drop off transfer order.
Set value before submit	SM Template Definition [sm_template_definition]	Sets the value from the various widgets to the appropriate value before submitting the template definition form.
Template selected	Service order task [sm_task]	Populates form based on template values.
Personal Stockroom Name by Type	Stockroom [alm_stockroom]	Sets the name of a stockroom based on its manager when it becomes a personal stockroom.
Update agent status	Service order task [sm_task]	Update the status of assigned agent.
Update UI on load and model change	Asset Usage [sm_asset_usage]	Update UI on load and model change
Personal Stockroom Name by Manager	Stockroom [alm_stockroom]	Updates the name of a personal stockroom when its manager changes.
Hide unused related lists/fields	Service order task [sm_task]	Hides related lists that are not relevant based on application configuration.
use schedule	SM Config [sm_config]	Turn off priority assignment and show consistent assignment if scheduling is turned off.
Verify Group Post Location Change	Service order [sm_order] [alm_stockroom]	Displays an error after a location change when no qualification group covers the location of the work order.

Business rules installed with Service Management Core

Business rules are added with Service Management Core.

Business rule	Table	Description
Build scratchpad & display info messages	Service order task [sm_task]	Build scratchpad variables that are used to display initial info messages on page.
Affected CI changed or removed	Service Order [sm_order]	Synchronizes the primary CI field and the Affected CIs related list on the Service Order form.

Business rule	Table	Description
Verify Work Notes	Service Order [sm_order]	Ensures that the Work notes field is populated in work orders that transition to the Cancel state.
Set default values	SM Template Definition [sm_template_definition]	Sets the **table** field by default.
Set Personal Stockroom	Transfer Order [alm_transfer_order]	Automatically sets the stockroom to the personal stockroom of the logged in user for drop-off transfer orders.
Export to update set	Part Requirement [cmdb_model_part_requirement]	Exports part requirement templates to the current update set and creates a sys_metadata_link record to associate template with current application.
Export to update set	Service Order Task Models [sm_m2m_somodel_stmodell]	Exports link between service order template and service task template to the current update set and creates a sys_metadata_link record to associate template with current application.
Export to update set	Service Order Task Template [cmdb_servicetask_product_model]	Exports service task templates to the current update set and creates a sys_metadata_link record to associate template with current application.
Export to update set	Service Order Template [cmdb_serviceorder_product_model]	Exports service order templates to the current update set and creates a sys_metadata_link record to associate template with current application.
Sync update of associated variables	SM Template Definition [sm_template_definition]	Synchronizes template definition with associated catalog variable.

Business rule	Table	Description
Date Checks	Service Order Task [sm_task]	Validates the window, estimated, and actual start and end dates.
Populate Location - New SOT	Service Order Task [sm_task]	Populates the location, if possible, based on parent work order location.
add_model_filter	Global [global]	Filter for SM Model Application slush bucket, limits available models to hardware and consumable models.
Reset qty to 1	Service Management Incidentals [sm_incidentals]	Sets the quantity field to 1 when the type is Car Rental.
Validate notification	SM Notification Rule [sm_notification_rule]	Validates that a user or group is selected when inserting or updating a notification rule.
Validate Field Agent Type	Stockroom [alm_stockroom]	Prevents duplicate personal stockrooms.
Calculate cost	Service Management Incidentals [sm_incidentals]	Helps to calculate the **Cost**when the **Type** is **Mileage** (starting with the Eureka release).
Check asset and CI	Service order task [sm_task]	Synchronizes affected Cis and affected assets.
Assign the previous agent on task	Service order task [sm_task]	Sets the previous agent whenever the task assigned to changes.
Populate Service Order from Template	Service Order [sm_order]	Populates a new work order from the work order model selected as a template.
Validate quantity requested	Transfer Order Line [alm_transfer_order_line]	Checks that the quantity requested on a transfer order line with a part requirement does not exceed the quantity that is required to fulfill the part requirement (starting with the Eureka release).
Close service order on workflow complete	Workflow contexts	Prevents rollup of task closures when there

Business rule	Table	Description
	[wf_context]	are active workflows on service orders.
Create Sub Tasks	Service Order [sm_order]	When service order leaves draft state, creates tasks from template if service order built from template, or creates default task if task-driven.
Validate Field Agent Name	Stockroom [alm_stockroom]	Validates that a personal stockroom has a valid, associated agent.
Create expense line	Service Management Incidentals [sm_incidentals]	Creates or updates an expense line based on the incidental's cost when the incidental is saved and all of the following are true: • The state is Incurred • The type is not None • The cost is not zero
Validation	Service Order Groups Dependency [sm_m2m_group_dependency]	Validates that the dependency is valid.
Verify CI on SM Task	Cis Affected [task_ci]	Verifies that the affected CI for a task is also an affected CI for the order.
Vendor type requires manager	User Group [sys_user_group]	Vendor is required for vendor groups.
Part Requirements	Service Order Task [sm_task]	Creates part requirements for a service order task from the part requirements configured for a service order task model used as a template. Free up assets when unassigned or reassigned. Update asset usages when tasks are closed.

Business rule	Table	Description
Apply dispatch method	Service Order Task [sm_task]	Automatically assigns a task once it is marked as ready for assignment when assignment method of the application is workflow or auto.
Group change validation	Service Order Task [sm_task]	Validates changes to assignment and dispatch groups in work order tasks.
Assign the previous agent on order	Service Order [sm_order]	Sets the previous agent whenever the order assigned to changes.
ValidateChanges	Service Order Task [sm_task]	Validates dispatch group and assignment group types match and that worknotes are provided if required.
Transitions	Service Order Task [sm_task]	Sets a task into work in progress when the task is accepted and work start is populated.
Sync catalog	SM Config [sm_config]	Synchronizes the application catalog when the service management configuration changes.
Set required by date on display	Part Requirement [sm_part_requirement]	Sets part requirement required by to the expected travel start of the associate service order task.
Request driven dispatch	Service Order [sm_order]	Responsible for dispatching service orders based on application configuration.
Build scratchpad & display info messages	Service Order [sm_order]	Build scratchpad variables that are used to display initial info messages on page.
Prevent Loop In TaskTemplateDependencies	Service Order Task Template Dependency [sm_m2m_task_template_dependency]	Prevents loops in task template dependencies
getMainSMModels	Global [global]	Slush bucket filter when linking service

Business rule	Table	Description
		order task templates to service order templates.
Task contract m2m	Service Management Incidentals [sm_incidentals]	Synchronizes contracts, expense lines, and incidentals
Notification for task	Service Order Task [sm_task]	Sends notifications when task changes if values change for fields specified in the configuration page.
Build scratchpad tables	SM Notification Rule [sm_notification_rule]	Sets the tables that should be displayed on notification rule page.
Update PR based on TOL	Transfer Order Line [alm_transfer_order_line]	Updates the part requirement when the associated transfer order line changes stage.
Add removed asset	Asset Usage [sm_asset_usage]	Determines validity of asset removal and updates the removed asset accordingly.
Add/remove manager to/from vendor group	Group [sys_user_group]	When group manager changes for a vendor group, add the new manager as a group member and remove the previous manager as a group member.
Service Management Group Types	Group [sys_user_group]	Ensures data integrity for dispatch group coverage information.
Deletion of Affected CI	Cis Affected [task_ci]	Part of the synchronization mechanism between the primary CI field and the Affected CIs related list on the Service Order form.
Prevent Loop In Tasks Dependencies	Service Order Task Dependency [sm_m2m_task_dependency]	Prevents circular work order task dependencies.
Cascade SO deletion	Service Order [sm_order]	Delete service order tasks and checklists when service order is deleted.
Create Personal Stockroom	User Role	Creates a personal stockroom for users (if

Business rule	Table	Description
	[sys_user_has_role]	they do not have one already) when they are assigned an agent role.
Delete Personal Stockroom	User Role [sys_user_has_role]	Deletes a user's personal stockroom when all agent roles are removed from the user.
Validate Part Requirement	Part Requirement [sm_part_requirement]	Validates the part requirement and checks for availability of the part. Validates sourcing information.
Invoke template workflow & move task	Service Order [sm_order]	Start workflow for service order and move subtasks to pending dispatch.
Populate Group - Qualification	Service Order [sm_order]	Populates the qualification group, if possible, based on location.
Create catalog	Service Order Template [cmdb_serviceorder_product_model]	Create a corresponding record producer if automatic publishing is on.
Populate schedule	Service Order Task [sm_task]	Populates scheduling fields if they are not already set. They are set, only if the state changes to Pending Dispatch.
Notification for request	Service Order [sm_order]	Sends notifications when task changes if values change for fields specified in the configuration page.
Cascade delete checklist	Service Order Task [sm_task]	Delete checklists when service order task is deleted.
Scratchpad	SM Config [sm_config]	Builds scratchpad for SM config form.
Validate TOL and check availability	Transfer Order Line [alm_transfer_order_line]	Validates transfer order line state changes and ensures that the asset is available in the stockroom.
Delete all expense lines	SM Incidentals	Delete expense lines when incidentals are deleted.

Business rule	Table	Description
	[sm_incidentals]	
Populate Schedule - New SOT	Service Order Task [sm_task]	Populates scheduling fields if they are not already set. They are set only if the state changes to Pending Dispatch.
Populate Location	Service Order [sm_order]	Populates the location, if possible, based on the affected CI identified by the caller.
Add as Primary if none set	Cis Affected [task_ci]	Add configuration item as primary affected CI if no primary CI exists.
Roll Up Changes	Service Order Task [sm_task]	Rollup state changes and estimated work times to service order.
Build scratchpad	Service Order Template [cmdb_serviceorder_product_model]	Sets scratchpad for service order template form.
Check asset and CI	Service order [sm_order]	Synchronizes affected Cis and affected assets.
Unassigned	Service order [sm_order]	Sets state of service order back to ready when it becomes unassigned.
Propagate priority	Service order [sm_order]	Propagates priority from service order to service order tasks.
Apply configuration settings	SM Config [sm_config]	Handles changes to SM Config record.
Update agent status	Service Order Task [sm_task]	Updates the status of an agent assigned to a task.
Build scratchpad	Service Order Task Template [cmdb_servicetask_product_model]	Sets scratchpad for service order task template form.
Check TOs before reassigning	Service Order Task [sm_task]	Sets scratchpad to prevent reassigning a task when there are transfer orders in transit.

Business rule	Table	Description
Prevent Duplicate Order Affected CIs	Cis Affected [task_ci]	Prevent duplicated affected Cis
Unassigned	Service Order Task [sm_task]	Prevent reassigning a task if there are transfer orders in transit.
SNC - Run parent workflows (Approval)	Approval [sysapproval_approver]	Handles order workflows when approval set to "More info required" or "Duplicate".
getTaskSMModels	Global [global]	Slush bucket filter when linking service order templates to service task templates.
Prevent model change after sourced	Part Requirement [sm_part_requirement]	Prevent changing the model after the part requirement is sourced.
Create AssetUsage when TOL delivered	Transfer Order Line [alm_transfer_order_line]	Create asset usage once a transfer order line is delivered.
Release Asset on AssetUsage delete	Asset Usage [sm_asset_usage]	Make asset available when asset usage is deleted.
Redirect TOL to existing TO under WOT	Transfer Order Line [alm_transfer_order_line]	Attempts to group transfer order lines under the same transfer order for a service order if the transfer order lines have the same "from" and "to" locations.
Populate Group - Dispatch/ Work	Service Order Task [sm_task]	Populates the dispatch group and assignment groups when only one dispatch group covers the location of a task, and only one assignment group is covered by the dispatch group.

Email notifications installed with Service Management Core

Email notifications are added with Service Management Core.

Notification	Table	Description
${Request_Label} created from email	Service Order [sm_order]	Template that is used to build notifications for new applications created from a Service Management template. This notification should remain inactive and not be used.
${Request_Label} changed	Service Order [sm_order]	Template that is used to build notifications for new applications created from a Service Management template. This notification should remain inactive and not be used.
${Task_Label} changed	Service Order [sm_order]	Template that is used to build notifications for new applications created from a Service Management template. This notification should remain inactive and not be used.

Planned Maintenance

The Planned Maintenance application is not a Service Management application, but it works with Service Management applications to help organizations manage regular preventive maintenance of assets.

Planned Maintenance uses maintenance plans to trigger the creation of work orders or facilities requests. These work orders and facilities requests specify how to perform maintenance on devices and vehicles, or just about any type of asset that requires maintenance. Work orders and requests can be based on:

- A specified time interval. For example, after a number of months since the previous maintenance was performed
- Meters or usage. For example, after a specified number of pages are printed or a specified number of miles are driven.

Activate Planned Maintenance

The SM **Planned Maintenance** plugin is available as a separate subscription.

Before you begin

Role required: admin

About this task

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.

Installed with SM Planned Maintenance

The SM Planned Maintenance core plugin also includes demo data.

Tables installed with SM Planned Maintenance

Table	Description
Maintenance Plan Record [sm_m2m_maint_plan_to_record]	Relates a maintenance schedule to a record in the system (from a document ID). Also contains information about the last time or value the schedule was run for the record and the next time or value when the schedule will run.
Schedule Template [sm_m2m_schedule_template]	Relates a maintenance schedule to service management templates.
Maintenance Plan [sm_maint_plan]	Defines a maintenance plan, including which table and records the plan applies to.
Maintenance Schedule [sm_schedule]	Defines a schedule that is part of a maintenance plan. A schedule can be duration, meter, condition, or script based.

Roles installed with SM Planned Maintenance

Role title [name]	Description
plan_maint_admin	Administrator for planned maintenance.

Script includes installed with SM Planned Maintenance

Script include	Description
PlannedMaintenanceUtils	Utilities for planned maintenance.
PlannedMaintenanceAjax	AJAX entry points into PlannedMaintenanceUtils.

Client scripts installed with SM Planned Maintenance

Client script	Table	Description
Update field display - trigger type chg	Maintenance schedule	Updates the fields displayed on the maintenance schedule form based on the trigger type selected.

Client script	Table	Description
	[sm_schedule]	
Update field display - repetition chg	Maintenance schedule [sm_schedule]	Updates the fields displayed on the maintenance schedule form based on the repetition selected.
Update table when type changes	Maintenance plan [sm_maint_plan]	Updates the **table** field based on the selected models (for model-based plans).
Validate the every field	Maintenance schedule [sm_schedule]	Verifies that the **every** field is a positive number; else it defaults to 1.
Update table when models change	Maintenance plan [sm_maint_plan]	Updates the **table** field based on the selected models (for model-based plans).

Business rules installed with SM Planned Maintenance

Business rule	Table	Description
Update maintenance plan record	Service Order [sm_order]	Updates the maintenance records [sm_m2m_maint_plan_to_record] once a service order is closed.
Update m2m schedule records	Maintenance schedule [sm_schedule]	Recalculates the next value or next run time when **meter** or **duration** fields change.
Active changes	Maintenance Plan Record [sm_m2m_maint_plan_to_record]	Handles changes to the active flag for a maintenance plan record.
Active insert	Maintenance Plan Record [sm_m2m_maint_plan_to_record]	Handles changes to the active flag for a maintenance plan record.
Active changes	Maintenance schedule [sm_schedule]	Handles changes to the active flag for a maintenance schedule.
Active changes	Maintenance plan [sm_maint_plan]	Handles changes to the active flag for a maintenance plan.
Active Insert	Maintenance schedule [sm_schedule]	Handles changes to the active flag for a maintenance schedule.

Business rule	Table	Description
Apply plan to new records	Maintenance plan [sm_maint_plan]	Updates the business rule for applying a plan to new records whenever the **Apply to new records** field changes.

Scheduled jobs installed with SM Planned Maintenance

Scheduled jobs	Description
Planned Maintenance Nightly Run	Builds maintenance requests based on active maintenance plans.

Managing maintenance plans

Planned Maintenance allows you to create, maintain, and schedule maintenance for equipment that requires regular maintenance.

The maintenance plan specifies the CI class, product model, or other criteria, such as location, and specifies the maintenance to be performed. The maintenance schedule specifies the timing, by specifying how often and when to perform the maintenance.

For example, you can configure a maintenance plan to inspect and clean all air conditioners for a particular product model. The maintenance schedule specifies that the inspection is performed every six months.

Maintenance plans and schedules also take into consideration service management work orders and facilities requests opened against that equipment.

Timing the first maintenance

By default, the first planned maintenance is scheduled based on the timing entered in the schedule. For example, if you create a schedule to inspect the air conditioners every six months, the first maintenance occurs six months from the time that you created the schedule.

To schedule the date of the first maintenance:

1. Navigate to the Maintenance Schedule form.
2. Click the **Run on demand** related link.
3. De-select the **Run now** field.
4. In the **Select next run date** field, use the calendar to select the desired date.
5. Save the date.
6. Click **Schedule**. This updates the next run time for the maintenance plan records.

You can update any maintenance schedule as needed. For example, if the regular interval is due next month, you can select an earlier or later date to change when the maintenance occurs.

Create a maintenance plan

When creating a maintenance plan, options on the form help to determine how and when maintenance should be performed.

Before you begin
Role required: SM admin

Procedure

1. Navigate to **All** > **Planned Maintenance** > **Maintenance Plans**.
2. Click **New**, specify a meaningful **Name** and **Short description**, fill in the form, and then click **Submit**.

Maintenance plan

Field	Description
Number	Auto-generated identification number for the maintenance plan.
Conditions	
Type	Type of trigger that determines when maintenance should be performed. ○ **Model based**: Base the maintenance plan on a specified model of a CI, such as a product model. ○ **General**: Base the maintenance plan on a table and filter. **Note:** Model-based plans apply only to hardware models, specifically ones that have at least one model category defined.
Model	Select one or more Product catalog items to identify the CIs that require preventive 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 the **Model based** type. If you select more than one model in the same category, the table does not change. But if you select a CI from a different category, the **Table** field displays the lowest level table that contains all the selected CIs. For example, if you select two PCs and one laser printer, the **Table** field changes to *Hardware [cmdb_ci_hardware]*, because that table includes computers and printers. If you then add a computer rack, the **Table** field changes to *Configuration Item [cmdb_ci]*, which contains all CIs.
Table	If you selected the **General** type, select the table you want to associate with the maintenance plan. If you selected the **Model based** type, this field displays the lowest level table that contains all the selected CIs.
Filter condition	Filter conditions to locate the specific assets you want to maintain. Only records in the selected table that match the filtering criteria require maintenance.
Apply to new matching records	Select the check box to ensure that the schedules defined for this maintenance plan are applied to all records that have been added to the specified table since the last time the plan was executed, and that meet the conditions entered in the **Filter condition**. For more information, see Associate a maintenance plan to filtered records.
Task creation policy	Specify what to do when a maintenance plan runs on a record that is already under maintenance.

Field	Description
	○ **Leave alone**: Do not allow the creation of new tasks or the deletion of existing ones. ○ **Cancel existing**: Allow tasks currently associated with the plan to be deleted. ○ **Add to existing**: Allow new tasks, along with existing active tasks, to be added to maintenance plans.

The maintenance plan is now ready for you to Configure a maintenance schedule.

Note:
You can configure the form to add **Asset**, **CI**, and **User** reference fields. These fields are appropriately pre-filled in the associated table and can be useful for generating reports. When a configuration item is selected for the maintenance plan and it is associated with an asset, the **Asset** field is pre-populated with that CI.

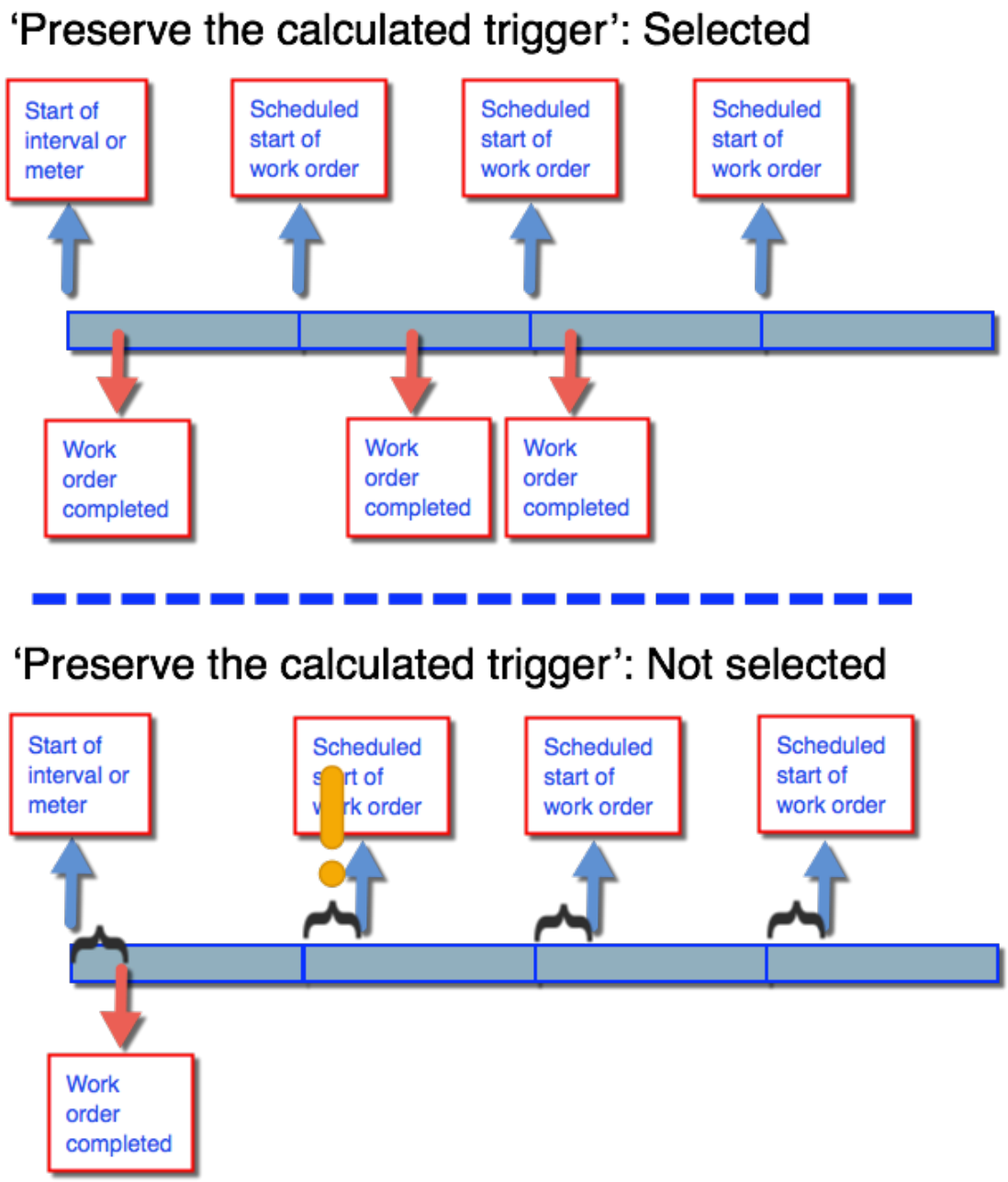
Note:
After you define a maintenance plan and create maintenance schedules for the plan, you cannot change the **Type**, **Model**, and **Table** fields, or the **Filter conditions**. Changes could potentially cause conflicts. If you need to make changes to those fields, first delete the maintenance schedules, then recreate the schedules with the desired settings.

Property settings for Planned Maintenance

You configure Planned Maintenance properties at **Planned Maintenance** > **Properties**.

Trigger properties

Use this property to maintain the planned maintenance intervals in fixed meter [planned_maintenance.fixed_meter]	Preserve the calculated meter trigger. See the illustration. • Select the check box to perform the next planned maintenance at the meter value that was originally calculated even if the most recent work order was completed at a later meter value. • Clear the check box to restart the meter calculation using the reading when the work order was completed.
Use this property to maintain the planned maintenance intervals in fixed intervals [planned_maintenance.fixed_interval]	Preserve the calculated interval trigger. See the illustration. • Select the check box to perform the next planned maintenance at the time/date that was originally calculated based on the configured interval even if the most recent work order was completed late. • Clear the check box to restart the interval calculation when the work order is completed.



Configure a maintenance schedule

After creating a maintenance plan, define specific criteria for determining when the plan should be executed.

Before you begin

Role required: sm_admin

About this task

Depending on the asset or CI for which you are setting up maintenance plans, you can create a single plan or multiple plans. For example, you can set up plans for a class of computer to be rebooted on the first and fifteenth of every month.

Note:
Plan carefully when defining multiple maintenance 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 do not conflict with one another.

Based on the templates associated with the plan, one or more service management work orders and facilities requests are auto-generated.

Maintenance schedules can be based on either duration or meter and can be triggered by the first occurring related condition. For example, on the Maintenance Schedule form, select **Duration or Meter** as the trigger for an automobile maintenance schedule and then define the duration as three months and the meter as 5,000 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 **Maintenance Plan Records** related list on the Maintenance Plan form.

Note:
In a maintenance plan record, the time stamp displayed in the **Next run time** field is not the same as the time set for executing the planned maintenance. The **Next action** field in the **Planned Maintenance Nightly Run** record displays the actual scheduled job execution time for the planned maintenance.

When the scheduled job runs, it will check whether the value in the **Next run time** field is less than the time set of the next planned maintenance nightly run job and if it is, the system will generate a request. A planned nightly maintenance is not executed and a request is not generated based on the next run time.

Procedure

1. Navigate to **All** > **Planned Maintenance** > **Maintenance Plans**.
2. Click the number of the maintenance plans you want to associate to a maintenance schedule.
3. In the **Maintenance Schedules** related list, click **New**, specify a meaningful **Name** and **Short description**, fill in the form, and then click **Submit**.

Note:
If the form is configured to show the **Next action** field, you can select the date and time for the first maintenance to be performed.

Maintenance schedule

Field	Description
Plan	Name of the maintenance plan that this schedule is a part of.
Active	Select the check box to activate the schedule for the maintenance plan.
Trigger	Timing condition that triggers the execution of the plan. ○ **Duration**: Maintenance to be performed based on time. Depending on your selection, additional fields appear to define the duration. ○ **Meter**: Maintenance 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

Field	Description
	○ **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.
Trigger type	Duration category for the maintenance schedule. For example, if you select **Monthly**, the **Due day of month** field appears so you can specify which day of each month to run maintenance. Different fields appear depending on the trigger type selected. This field appears when **Duration** is selected for **Trigger**.
Repeat	Frequency of the repetition. This field appears when **Interval** is selected for **Trigger type**.
Due day of week	Day of week to repeat on. This field appears when **Weekly** is selected for **Trigger type**.
Due day of month	Day of the month to repeat on. This field appears when **Monthly** or **Annually**is selected for **Trigger type**.
Due month	Month to repeat on. This field appears when **Annually** is selected for **Trigger type**.
Due time	Time of day in hours, minutes, and seconds. This field appears for all trigger types except **Interval**.
Every	Number of occurrences, such as miles or pages, that must be recorded before the maintenance plan is executed. Must be greater than zero (0). This field appears when **Meter** 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**.
Table	Lists the table associated with the assets or CIs selected for maintenance. This field appears when **Meter** or **Condition** is selected for **Trigger**.
Lead time	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. This field appears when **Duration** is selected for **Trigger**.
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. This field appears when *Script* is selected for **Trigger**. Maintenance runs if the script returns true. The "current" variable is available and represents the record that is undergoing maintenance, for example, a CI.

4. Specify whether the next planned maintenance should occur at the originally calculated time/meter value or whether to restart the meter/interval calculation from the time that the work order was completed.
   See Property settings for Planned Maintenance.

Changes to maintenance schedules

If you make and save changes to an existing maintenance schedule, any previously associated records are updated accordingly.

The following examples explain the types of behavior you can expect after making changes:

- If you change a schedule from a duration-based to a meter-based schedule, the next run time is cleared and the associated records are populated with a next run value instead.
- If the **Every** field is changed on a meter-based schedule, the next run value is updated based on the existing *Last Run Value*, or from the current value of the asset if no last run value exists.
- If you change the **Field** value for a meter-based schedule, the records associated with the schedule have their next run values recalculated based on the new **Field** value.
- For Interval-based schedules, changing from one **Trigger type** to another updates the next run time based on the existing **Last Run Time** value, or from **Now** if no last run time exists.

Associate a maintenance plan to filtered records

You can configure a maintenance plan with filtering criteria. For example, you can apply a maintenance plan to all records containing computers that start with "apple".

Before you begin

Role required: SM admin

Procedure

1. Create a maintenance plan.
2. Set up a **Filter condition** to capture the records that should use the maintenance plan.

   Note:

   You can click **Refresh** ( ) to view the number of matching records.

3. Click **Submit**.
4. Configure a maintenance schedule.
5. In the **Related Links** for the maintenance plan, click **Apply schedules to filtered records**.

Result

The schedule is applied to the records that meet the specified filter conditions.

Note:

If multiple schedules are defined, they all take effect on the matching records when you click **Apply schedules to filtered records**. See Configure a maintenance schedule for details. This same functionality exists for maintenance schedules. The **Related Links** for the schedule also contains an **Apply schedule to filtered records** link. If you click this link in the maintenance schedule, only this specific schedule is applied to the records that meet the filter conditions in the associated maintenance plan.

Associate a schedule template to matching records

The instance adds templates to a maintenance schedule so the appropriate requests and tasks, such as work orders and facilities requests, can be auto-generated when a maintenance schedule runs.

Before you begin

Role required: SM admin

About this task

A maintenance schedule runs and the requests or orders are generated, when a scheduled job called *`Planned Maintenance Nightly Run`* evaluates the schedule and determines that the meter or interval criteria in the schedule is met or exceeded. You can run a scheduled job to execute a maintenance schedule that runs at a day or time convenient for your business.

Each auto-generated service order is linked to the record under maintenance in the following ways:

- Each service order **Record table** and **Record ID** field is always populated with the table name and ID of the record under maintenance.
- If the record under maintenance is a configuration item, the service orders **Affected CI** field is populated.

Procedure

1. Create a maintenance plan.
2. Add a **Filter condition** to identify those records for which you want to apply the maintenance plan.

   Note:

   You can click **Refresh** ( ) to display the number of matching records.

3. Click **Submit**.
4. Define or select a maintenance schedule.
5. In the **Maintenance Schedules** related list, click the name of the schedule.
   In the **Maintenance Schedule** form, a **Schedule Templates** related list appears.
6. In the **Schedule Templates** related list, click **Edit**.
   The **Edit Members** slushbucket displays all the service order, work management, and facilities request templates defined using any of the following applications:
   - **Product Catalog** > **Templates** > **Work Order Templates**
   - **Facilities** > **Catalog&Knowledge** > **Facilities Request Templates**
7. Move the templates you want to apply to the matching record from the **Collection** bucket to the **Model List** bucket and then click **Save**.
8. In the Maintenance Schedule header, click **Back**.

Result

Work orders or facilities requests created by the scheduled jobs running on the associated records contain the selected template.

Run a scheduled job to execute a maintenance schedule

Maintenance schedules are executed whenever the meter, duration, script, or condition criteria is met. You can also use the Schedule ad-hoc feature to run a maintenance schedule manually.

Before you begin

Role required: SM admin

About this task

Maintenance schedules are run regularly using the *Planned Maintenance Nightly Run* scheduled job. When the scheduled job is run, the appropriate Service Orders are created for all records that meet the schedule criteria (including all records for the current day).

To configure the nightly planned maintenance scheduled job:

Procedure

1. Navigate to **All** > **System Definition** > **Scheduled Jobs**.
2. Open **Planned Maintenance Nightly Run**.

3. In Related Links, click **Configure Job Definition**.
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 maintenance schedule.
5. Click **Update**.
6. At any time, to run the scheduled job, click **Execute Now**.
   The scheduled job evaluates all previously defined schedules and executes the ones that are scheduled to run.

> **Note:**
> If one or more records in the table associated with the maintenance plan are deleted after the matching records were associated with the maintenance plan, the next nightly run removes all the records associated with those removed assets.

Run a maintenance schedule on demand

Maintenance schedules are typically run using the scheduled job named *`Planned Maintenance Nightly Run`*. However, you may want to run the schedule immediately or change the date when a schedule runs.

Before you begin

Role required: admin

About this task

When you run a maintenance schedule on demand, all of the next run dates for the relevant maintenance plan records are updated to the user-defined time, now or in the future. All the appropriate service orders are created. If the schedule is meter, condition, or script-based, service orders are created for maintenance plan records that meet the schedule criteria.

Procedure

1. Navigate to **All** > **Planned Maintenance** > **Maintenance Plans**.
2. Open the Maintenance Plan that contains the schedule to run.
3. In the **Maintenance Schedules** related list, select the maintenance schedule you want to run.
4. Click the **Run on demand** related link and then fill in the form.

On demand schedule

Field	Description
Run now	Select the check box to run the maintenance for the schedule immediately. Clear the check box to schedule a date for the schedule to run.
Select date	Date in the future for maintenance to run. **Note:** This field appears only when the **Run Now** check box is not selected.

View a maintenance log

You can view all maintenance performed on a particular CI, the next scheduled maintenance, and the last time maintenance was performed.

Before you begin
Role required: SM admin

Procedure

1. After the `Planned Maintenance Nightly Run` scheduled job has executed for a maintenance plan, navigate to the location of the CI for which you ran the plan.
   For example, **Configuration** > **Servers** > **Linux**.
2. Right-click in the record header and select **View** > **Maintenance**.
3. Select the CI to view the log.

   Related lists display maintenance plans, maintenance plan records for the CI, and service orders.

Maintenance plan examples

You can define maintenance plans using model-based, meter-based, or duration-based selection criteria.

- To schedule a reboot for certain computer models after a specified number of keystrokes, define a model-based plan with a meter-based maintenance schedule.
- To schedule a printer ink cartridge replacement after printing a specified number of pages, define a general plan with a meter-based maintenance schedule.
- To schedule an antivirus scan on particular computers after a specified number of days, define a model-based plan with a duration-based maintenance schedule.

Define a maintenance schedule for a computer reboot

To schedule a reboot for certain computer models after a specified number of keystrokes, define a model-based plan with a meter-based maintenance schedule. In the example, a field called **keystrokes** is added to the Computer [cmdb_ci_computer] table.

Procedure

1. Navigate to **All** > **Planned Maintenance** > **Maintenance Plans**.
2. Click **New** and create a maintenance plan called `Reboot Apple Computers` with the following definitions and then click **Submit**.
   - **Type**: Model-based
   - **Model**: Click the lock icon and select **Apple iMac 27** and **Apple MacBook Pro 17**.
3. Navigate to **Planned Maintenance** > **Maintenance Plans** and then click the number of the maintenance plan you just created.
4. In the **Maintenance Schedules** related list, click **New**, enter the following settings, and then click **Submit**.
   - **Name**: Reboot Apple Computers
   - **Short description**: Scheduled reboot for Apple computers
   - **Repetition**: Meter
   - **Every**: 500000
   - **Field**: keystrokes

Result

The Reboot Apple Computer maintenance plan schedules all Apple iMac 27 and Apple MacBook Pro 17 computers to reboot after 500,000 keystrokes.

Define a maintenance schedule for an ink cartridge replacement

To schedule a printer ink cartridge replacement after printing a specified number of pages, define a general plan with a meter-based maintenance schedule. In the example, a table called **Printer** is added with string fields for printer, model, pages, and the like.

Procedure

1. Navigate to **All** > **Planned Maintenance** > **Maintenance Plans**.
2. Click **New** and create a maintenance plan called `Epson Laser Cartridge Replacement` with the following definitions and then click **Submit**.
   - **Type**: `General`
   - **Table**: `Printer`
   - **Filter condition**: `Model is Epson`
3. Navigate to **Planned Maintenance** > **Maintenance Plans** and then click the number of the maintenance plan you just created..
4. In the **Maintenance Schedules** related list, click **New**, enter the following settings, and then click **Submit**.
   - **Name**: Epson Laser Cartridge Replacement
   - **Short description**: Scheduled cartridge replacement for Epson laser printers
   - **Repetition**: Meter
   - **Every**: 7500
   - **Field**: Pages

Result

The Epson Laser Cartridge Replacement maintenance plan schedules all Epson laser printers to replace ink cartridges after printing 7,500 pages.

Define a maintenance schedule to run antivirus software

To schedule an antivirus scan on certain computers after a specified number of days, define a model-based plan with a duration-based maintenance schedule. In the example, a field called **trigger type** is added to the Computer `[cmdb_ci_computer]` table.

Procedure

1. Navigate to **All** > **Planned Maintenance** > **Maintenance Plans**.
2. Click **New** and create a maintenance plan called `Update Antivirus` with the following definitions:
   - **Type**: Model-based
   - **Model**: Click the lock icon and select **Apple iMac 27** and **Apple MacBook Pro 17**.
3. Click **Submit**.
4. Navigate to **Planned Maintenance** > **Maintenance Plans** and then click the number of the maintenance plan you just created.

5. In the **Maintenance Schedules** related list, click **New**, enter the following settings, and then click **Submit**.

   - **Name**: Antivirus Update
   - **Short description**: Scheduled antivirus update for Apple computers
   - **Repetition**: Duration
   - **Trigger Type**: Interval
   - **Days**: 30

Result
The Update Antivirus maintenance plan schedules all Apple iMac 27 and Apple MacBook Pro 17 computers to run the antivirus software every 30 days.

Domain separation and Planned Maintenance

Domain separation is supported in Planned Maintenance. 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.

Support level: Standard*

The support level is Standard but has some exceptions or special conditions.

- Includes all aspects of **Basic** level support.
- Business logic: The service provider (SP) creates or modifies processes per customer. The use cases reflect proper use of the application by multiple SP customers in a single instance.
- The instance owner must be able to configure minimum viable product (MVP) business logic and data parameters. This configuration is done per tenant, as expected for the specific application.

Sample use case: An Admin must be able to make comments required when a record closes for one tenant, but not for another.

For more information on support levels, see Application support for domain separation.

How domain separation works in Planned Maintenance

There is no sys_domain column in the Maintenance Plan (sm_maint_plan) table. The application cannot be exposed to customer fulfillers; however, the table is condition-based so there is some limited support.

You can set maintenance plans to include or exclude domains or set them globally by design. Support in the Part Requirements (sm_part_requirement} table is data only.

Related topics

Domain separation for service providers

Facilities Service Management

With the ServiceNow® Facilities Service Management application, you can request changes to the operation and maintenance of your facilities, track these requests, and make the necessary changes.

Deprecation announcement

Facilities Service Management is being prepared for future deprecation. It will be hidden and no longer activated on new instances but will continue to be supported until deprecation. Workplace Service Delivery provides the latest experience for this functionality. For details, see the KB0867184 Deprecation Process article in the Now Support knowledge base.

Explore	Set up	Administer
• Facilities Service Management overview • Domain separation and Facilities Service Management	• Activate Facilities Visualization Workbench	• Facilities service management process • Configure Facilities Service Management • Configure Enterprise Move • Properties installed with Facilities Service Management • Properties installed with Facilities Move Management
Use	**Develop**	**Troubleshoot and get help**
• Facilities requests • Facilities request tasks • Space management • Facilities move management	• Developer training • Developer documentation • Installed with Facilities Service Management	• Ask or answer questions in the community • Search the Known Error Portal for known error articles • Contact Customer Service and Support

Facilities Service Management overview

The Facilities Service Management application lets users request changes to the operation and maintenance of your facilities. The facilities staff can then track these requests and make the necessary changes.

The Facilities Service Management application offers the following benefits:

- Indicates the location of a facility request so the facilities team knows exactly where users encountered the issue.
- Identifies configuration items (CIs) for each facility request so you know which items in your infrastructure are also impacted.
- Allows any user in the system to view all open facilities requests. Users can see the facilities issues that have already been reported before they submit a new request.

Activate Facilities Service Management

The Facilities Service Management plugin (com.snc.facilities_service_automation) is now deprecated and no longer supported or available for new activation.

Before you begin
Role required: admin
For details, see the Deprecation Process [KB0867184] article in the Now Support knowledge base.

Related topics

List of plugins

Activate Facilities Move Management

Activate Facilities Visualization Workbench

Create a group

Set up groups and assign the necessary roles and users. The users in the group inherit the roles of the group, so you do not have to assign roles to each user separately.

Before you begin
Role required: admin

About this task
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.

Procedure

1. Navigate to **All** > **User Administration** > **Groups**.
2. Click **New**.
3. Fill in the fields on the form, as appropriate.
   See Create a user group for an explanation of each field.
4. Click the lock icon beside the **Type** field.
   If the field is not visible, configure the form to add it.
   The **Type** field expands.
5. Click the lookup icon (🔍) and select the **[application]** type.
6. Right-click the form header and select **Save**.
7. Add the [application]_admin or [application]_staff role to the **Roles** related list.
8. Add users to the **Group Members** related list.
9. Click **Update**.

Configure Facilities Service Management

Facilities administrators can set facilities configurations to determine how the system handles daily operations.

Before you begin
Role required: facilities_admin

About this task
Facilities Service Management defaults to the request-driven processing method for handling tasks. For information about both processing methods, see Task vs. request driven processing.

Procedure

1. Navigate to **All** > **Facilities** > **Administration** > **Configuration**.

   Note:
   Administrators in domains lower than the global domain can view the Configurations screen, but cannot modify the settings.

   The options on the 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.

   Note:
   The 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.

Configuration screen - Business Process

Field	Description	Dependency
Lifecycle		
Enable state flows	Enable state flows consistent with all service management applications. If you prefer to create your own state flows using business rules, client scripts, and UI actions, disable the option. A confirmation box displays and includes a link to a help article that describes the implications of disabling state flows. It is highly recommended that you read the article before proceeding. If you disable state flows and save, this configuration option is removed from the screen and state flows cannot be re-enabled from the user interface.	
Process life cycle	Select **request driven (subtasks are optional)** if you do not want to require tasks to fulfill requests. When the request 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. **Note:** If the **Enable state flows** option is not selected, the process life cycle becomes**request-driven** and this field is not displayed.	**Enable state flows** is turned on.
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.

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.
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.	
Notifications		
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. **a.** From **Table**, select **Request** or **Task**. **b.** 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. **c.** From **Recipients**, select one or more recipients **d.** If **a specific user** or **a specific group**, is selected, the user is prompted to select a user or group. **e.** To define more notifications using other fields or recipients, repeat the steps on the next line. **f.** To remove a notification, click the ⊖ symbol to the right of the notification.	

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

Configuration screen - Assignment tab

Field	Description	Dependency
Assignment method for tasks: Manually		
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.	
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 priority assignment	Enable this option to use priority assignment for auto-assigning agents.	○ **Enable state flows** is turned on. ○ **Process life cycle: Life cycle is task driven**. ○ **Auto-selection of agents will consider agent or task schedules**. **Note:** The **Process life cycle** option is not available in all service management applications.
Select priorities for priority assignment	Select priorities for assignment.	○ **Use agent or task scheduling** is turned on. ○ **Enable priority assignment** is turned on.
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.	○ **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**.

Field	Description	Dependency
Auto-selection of agents for tasks requires them to have skills	This option determines the degree to which skills must be matched to a task when determining auto-assignment. ○ 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.	○ **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.

Configuration screen - 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.	
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.	

5. Click **Save**.

> **Warning:**
> When the **Enable state flows** option is disabled, a confirmation box with a link to documentation appears, explaining the consequences of disabling state flows. It is highly recommended that you read the documentation before making this change, as the action of disabling service management state flows cannot be reversed.

Task vs. request driven processing

All applications use either task-driven or request-driven processes for handling tasks.

Each application defaults to one or the other of these processing types, but you can switch between them as needed.

Task-driven processing means that the work order or request simply contains a list of tasks necessary for completing the overall work. When a work order record is created, an associated task record is automatically created. A request must have at least one task, and more tasks can be defined to handle all aspects of the request. As tasks are performed and completed, the request transitions through a series of states. After the last task is closed, the request automatically transitions to closed.

Request-driven processing means that tasks are assigned to a request, but closing all the tasks does not automatically close the request. A request does not require any tasks and can be opened and closed independently. Any tasks can be transitioned and assigned independently and to different agents than specified on the request. Even if all tasks are closed, the request can remain open and continue to be worked on. However, the request cannot be closed until all tasks are also closed. In request-driven processing, state transitions are based solely on the request.

Installed with Facilities Service Management

Several types of components are installed with the Facilities Service Management plugin.

Demo data is available with Facilities Service Management.

Tables installed with Facilities Service Management

Facilities Service Management adds the following tables.

Table	Description
Equipment Item [cmdb_equipment_item]	Stores equipment item records
Facilities Request [facilities_request]	Stores facilities request records
Facilities Request Task [facilities_request_task]	Stores facilities request task records
Facilities Request Flow [sf_facilities_request]	Stores request state flow records
Facilities Request Task Flow	Stores request task state flow records

Table	Description
[sf_facilities_request_task]	
Facilities Request Model [cmdb_facreq_product_model]	Stores request models
Facilities Request Task Model [cmdb_factask_product_model]	Stores request task models

Properties installed with Facilities Service Management

Facilities Service Management Properties controls the behavior of the Facilities Service Management application.

Facilities Service Management adds the following properties.

Property	Description
facilities.management.autoclose.request.time	Number of days (integer) after which Resolved requests feature. • Type: integer • Default value: 1 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.workflow.state	Select the state at which the template workflow starts. • Type: string • Default value: 5 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.default.end.time	Default end time for all work agents when no schedule is • Type: string • Default value: 17:00 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.fvw.area.unit	The system base area unit for facilities space tables. Set squared. • Type: true | false • Default value: false • Location: **Facilities** > **Administration** > **Properties**
facilities.management.timezone.weight	Time zone weight.

Property	Description
	• Type: integer • Default value: 10 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.state.value	Select the state that the request goes into after **work in p** • Type: integer • Default value: 6 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.work.spacing	Amount of time (in minutes) to add between the end of a • Type: integer • Default value: 0 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.skills.weight	Skills weight. • Type: integer • Default value: 10 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.location.weight	Location weight. • Type: integer • Default value: 10 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.default.start.time	Default start time for all agents when no schedule is set. continued from the previous day, the start time is set for uses a 24-hour clock. • Type: string • Default value: 08:00 • Location: **Facilities** > **Administration** > **Properties**
facilities.management.overwrite.user.location	Overwrite the user location with the primary location set • Type: true | false • Default value: true • Location: **Facilities** > **Administration** > **Properties**
glide.ui.facilities_request_task_activity.fields	Facilities Request Task activity formatter fields

Property	Description
	• Type: string • Default value: assigned_to,cmdb_ci,state,impact,priority,opened_by, • Location: **Facilities** > **Administration** > **Properties**
facilities_management.map.merge.task.agent.markers	Merge the task and agent markers on the geolocation ma • Type: true | false • Default value: false • Location: **Facilities** > **Administration** > **Properties**
facilities.management.max.agents.processed	Sets the maximum number of agents processed by auto- limit of 300 agents. The system cannot auto-dispatch a t agents than the value configured. • Type: integer • Default value: 100 • Location: **Facilities** > **Administration** > **Properties**

Roles installed with Facilities Service Management

Roles control access to features and capabilities in Facilities Service Management.

Facilities Service Management adds the following roles.

Note:
You must add the Notify viewer (notify_view) role to employees you want to view notify (conference calls and SMS messages) content. For more information, see Roles installed with Notify.

Role title [name]	Description	Contains Roles
facilities_read	Can read facilities requests.	none
facilities_admin	Can create and modify all facilities requests, modify floor plans, and configure buildings, floors, and rooms. Administrators can also create tasks using the Clone Task feature.	• knowledge_manager • facilities_staff • facilities_dispatcher • catalog_admin • territory_admin • skill_admin • facilities_approver_user • template_admin • skill_model_admin
facilities_asset_admin	Can create and modify all facilities assets.	asset

Role title [name]	Description	Contains Roles
facilities_approver_user	Can approve whether a facilities request can move forward.	approver_user
facilities_dispatcher	Can schedule and assign tasks to the facilities staff. They can be searched (filtered by) the group they manage.	• skill_model_user • facilities_staff • territory_user • inventory_user
facilities_staff	Provides full access to the Facilities application and all modules. Can create and modify facilities requests and access facilities reports. Facilities staff are typically the users who are assigned to facilities requests and update the request record accordingly.	• inventory_user • skill_user • document_management_user • fc_request_reader • territory_user • service fulfiller • fc_request_writer • facilities_read
The facilities_staff and facilities_admin roles automatically inherit the following roles:		
fc_request_reader	Can read facilities request records.	none
fc_request_writer	Can create, read, write, and delete facilities request records.	fc_request_reader
fpv_floorplan_writer	Can create, read, write, and delete facilities floor plans.	fpv_floorplan_reader
fpv_element_reader	Can read room records.	none
fpv_element_writer	Can create, read, write, and delete room records.	none

Script includes installed with Facilities Service Management

Script includes are used to store JavaScript that runs on the server.

Facilities Service Management adds the following script includes.

Script include	Description
fc_AbstractWrapper	Abstract wrapper used to wrap GlideRecord objects related to the Facilities Management application. Customers do not modify this class.
fpv_ElementSecurityManager	Wrapper class for Floor Plan Viewer security. Customers do not modify this class.
fpv_Factory	Customizable class providing the correct Facilities Management wrapper type.

Script include	Description
	Customers modify this class when adding their own wrapper implementations.
fc_AbstractSecurityManager	Abstract security manager providing default denied access. All security managers extend this class. Customers do not modify this class.
fpv_Floorplan	Wrapper class for Floor Plan Viewer floorplan record. Customers do not modify this class.
fc_Constants	Facilities Constants Customers do not modify this class.
fc_BaseFactory	Base class providing wrappers for Facilities Request objects. Customers do not modify this class.
fc_RequestSecurityManager	Wrapper class for Facilities Management Request security. Customers do not modify this class.
fpv_BaseFactory	Base class providing wrappers for FloorPlanViewer objects. Customers do not modify this class.
fpv_AbstractSecurityManager	Abstract security manager providing default denied access. All security managers extend this class. Customers do not modify this class.
fc_FacilitiesRequest	Facilities Request functions. Customers do not modify this class.
fpv_AbstractWrapper	Abstract wrapper used to wrap GlideRecord objects related to the Floor Plan Viewer plugin. Customers do not modify this class.
fpv_Element	Wrapper class for Floor Plan Viewer element records. Customers do not modify this class.
fc_FacilitiesRequestAjax	Facilities Request AJAX. Customers do not modify this class.
FacilitiesUtils	Contains utility methods for space management, including rollup calculations from spaces to levels and levels to building.
fc_Factory	Customizable class providing the correct Facilities Management wrapper type.

Script include	Description
	Customers modify this class when adding their own wrapper implementations.
FacilitiesUtilsAJAX	Contains utility methods for facilities, including scheduling and blackouts.
fpv_Constants	Floor Plan Viewer Constants. Customers do not modify this class.
fpv_FloorplanSecurityManager	Wrapper class for Facilities Management Case security. Customers do not modify this class.
FacilitiesViewerUtils	Contains utility methods for the floor plan viewer.

Business rules installed with Facilities Service Management

A business rule is a server-side script that runs when a record is displayed, inserted, updated, deleted, or when a table is queried.

Facilities Service Management adds the following business rules.

Business rule	Table	Description
Building Utilization	Building [alm_building]	Ensures that utilization thresholds are set to numbers from 0 through 100.
Update User Primary Location	Associated User [fm_m2m_user_to_space]	Updates the sys user records location to the current primary location for the user in the fm_m2m_user_to_space table.
Reference Area	Facility Space [fm_space]	Calculates the area in common units for the space.
Prevent ancestry loop	Facility Space [fm_space]	Prevents circular space definitions where a space is both a parent and child at the same time.
Rollup	Facility Space [fm_space]	Rolls up the space information to level as info is changed on the space.
Rollup	Level [fm_level]	Rolls up level information to the building.
Floor Utilization	Level [fm_level]	Ensures that utilization thresholds are set to numbers from 0 through 100.
Rollup	Associated User [fm_m2m_user_to_space]	Updates the space utilization on a space as users are added and removed from spaces.

Business rule	Table	Description
Reference area	Campus [fm_campus]	Calculates the area in common units for the space.
update space display name	Building [alm_building]	Generates the full display name for the space.
Max Occupancy	Building [alm_building]	Max occupancy cannot be less than 0.
Rollup	Building [alm_building]	Rolls up building data to the campus.
Request Autoclose	Facilities Request [facilities_request]	Automatically closes requests that are resolved and have not been updated in the 1 day. This number is a property in System Properties.
Facilities Primary Location Change	User [sys_user]	Updates the fm_m2m_user_to_space table when the location on the sys_user records changes.
Max Occupancy	Facility Space [fm_space]	Max occupancy cannot be less than 0.
Prevent duplicates	Facility Zone [fm_zone]	Do not allow the same space to be added to a single zone more than once.
Prevent duplicates	Associated User [fm_m2m_user_to_space]	Do not allow the same user to be added to the same space more than once.
Prevent multiple main level for building	Level [fm_level]	Do not allow there to be more than one main level set for levels in a building.
Update primary location	Associated User [fm_m2m_user_to_space]	Helps keep the sys user and fm_m2m_users_to_space tables in synchronization when primary location changes.
Facilities area unit option changed	Facility Space [fm_space]	Converts` square feet to square meters
update space display name	Level [fm_level]	Updates display name as building and level name changes
Reference Area	Facility Space [fm_space]	Calculates the area in common units for the spaces.

Business rule	Table	Description
Max Occupancy	Facility Space [fm_space]	Max occupancy cannot be less than 0.
Reference Area	Facility Space [fm_space]	Calculates the area in common units for the space.
Space - generate full name	Facility Space [fm_space]	Generates the full display name for the space.

Email notifications installed with Facilities Service Management

Email notifications are a way to send selected users email or SMS notifications about specific activities in Facilities Service Management.

Facilities Service Management adds the following email notifications.

Notification	Description
Facilities Request is assigned	Sends an email message to the facilities staff member who is assigned to the facilities request.

Catalogs installed with Facilities Service Management

Catalogs provide customers with self-service opportunities within Facilities Service Management.

Facilities Service Management adds the following catalogs.

Table	Description
Facilities Catalog	Contains facilities catalog items

Table transform maps installed with Facilities Service Management

Table transform maps allows you to add spaces or details about spaces from other sources.

Facilities Service Management adds the following table transform maps.

Table transform maps	Description
Facilities level transform map	Helps the user quickly populate floor (level) data.
Facilities transform map	Helps the user quickly populate space data, including associated users.

Activate Facilities Move Management

The (com.snc.facilities_service_automation) and the (com.snc.facilities_service_automation.move) plugins are now deprecated and no longer supported or available for new activation.

Before you begin

Role required: admin

For details, see the Deprecation Process [KB0867184] article in the Now Support knowledge base.

Related topics

List of plugins

Activate Facilities Service Management

Activate Facilities Visualization Workbench

Configure Enterprise Move

Facilities or Move administrators can set configurations to determine how the system displays colors on the move planning tool.

Before you begin

Role required: facilities_admin or move_admin

Procedure

1. Navigate to **All** > **Enterprise Move** > **Configuration** > **Enterprise Move Properties**.
2. Fill in the fields on the form, as appropriate.

Enterprise Move Properties

Option	Selection
The colors for segments on the move planning tool	Hex values, RGB values, or HTML colors
The color to use for highlighting seats on the move planning tool after the list of segment colors has been exhausted	Hex values, RGB values, or HTML colors
The color to use for non-selected segments	Hex values, RGB values, or HTML colors
The color to use for highlighting open seats on the move planning tool	Hex values, RGB values, or HTML colors

3. Click **Save**.

Installed with Facilities Move Management

Several types of components are installed with the Facilities Move Management plugin.

Demo data is available with Facilities Move Management.

Tables installed with Facilities Move Management

Facilities Move Management adds the following tables.

Table	Description
Enterprise Move Scenario [enterprise_move_scenario]	Holds all scenarios
Enterprise Move Request	Holds actual move requests

Table	Description
[enterprise_move_request]	
Enterprise Move Request Task [enterprise_move_request_task]	Contains tasks for enterprise move request
Enterprise Move Delegator [move_delegator]	Stores delegator to scenario correlations
Enterprise Move Detail [move_detail]	Contains users moved in enterprise move scenario
Move Task Template [move_task_template]	Contains sm_core template for single user move tasks
Move Task Flow [move_sf_task]	Stateflow for single user move task
Move Request [move_request]	Contains single user move requests
Move Request Flow [move_sf_request]	Stateflow for single user move request
Move Request Template [move_request_template]	Contains sm_core template for single user move requests
Move Task [move_task]	Holds single user move tasks

Properties installed with Facilities Move Management

Properties control the behavior of the Facilities Move Management application.

Facilities Move Management adds the following properties.

Property	Description
The colors for segments on the move planning tool [facilities.enterprise.move.mpt.segment.colors]	The colors for segments on the move planning tool
The color to use for highlighting seats on the move planning tool after the list of segment colors has been exhausted [facilities.enterprise.move.mpt.overflow.seats.color]	The color to use for highlighting seats on the move planning tool after the list of segment colors has been exhausted
The color to use for non-selected segments [facilities.enterprise.move.mpt.other.color]	The color to use for non-selected segments

Property	Description
The color to use for highlighting open seats on the move planning tool [facilities.enterprise.move.mpt.open.seats.color]	The color to use for highlighting open seats on the move planning tool

Roles installed with Facilities Move Management

Roles control access to features and capabilities in Facilities Move Management.

Facilities Move Management adds the following roles.

Role title [name]	Description	Contains Roles
Move Basic [move_basic]	Can read and create service orders and follow up on the orders they created.	• document_management_user • move_read • service_fulfiller • task_activity_writer • skill_user • territory_user • inventory_user
Move administrator [move_admin]	Has full control over all Service Management data. Also administers Territories and Skills, as needed.	• territory_admin • skill_model_admin • move_approver_user • skill_admin • catalog admin • knowledge_manager • move_agent • template_admin • move_dispatcher
Move dispatcher [move_dispatcher]	Schedules and assigns the tasks to agents. They can be searched (filtered by) the group they manage.	• skill_model_user • inventory_user • territory_user • move_basic
Move agent [move_agent]	Can accept or reject a task. It is the one who performs the work on the site.	• move_basic
Move initiator [move_initiator]	Similar to sm_basic (can read and create service orders and follow up on the orders they created), but can also grant UI access.	• move_basic

Role title [name]	Description	Contains Roles
Move approver [move_approver_user]	Approve orders and requests.	• approver_user
Move read [move_read]	Can only read and create service orders and follow up on the orders they created.	

Email templates installed with Facilities Move Management

Email templates allow you to create reusable content for the subject line and message body of email notifications.

Facilities Move Management adds the following email templates.

Email templates	Description
move.del	Notifies delegators to assign seats for an enterprise move.

Script includes installed with Facilities Move Management

Script includes are used to store JavaScript that runs on the server.

Facilities Move Management adds the following script includes.

Script include	Description
FacilitiesMoveUtils	Utilities used by move management

Client scripts installed with Facilities Move Management

Client scripts define custom behaviors that run when events occur like when a form is loaded or submitted, or a cell changes value.

Facilities Move Management adds the following client scripts.

Client script	Table	Description
Remove bad date	Move Request [move_request]	Remove default date
Autopopulate from_location	Move Request [move_request]	Auto-populate the from_location based on the selected User to be moved.
Autopopulate From on embedded list	Enterprise Move Detail [move_detail]	Populate from location when a user is added
State is read only	Move Request [move_request]	Set state to read only when state is Draft or Submitted

Client script	Table	Description
Warn to_location not a Facility Space	Enterprise Move Detail [move_detail]	Warn the user that the **to location** is not a facility space (fm_space)
Asset update	Enterprise Move Detail [move_detail]	Update assets for the user in a move
Close Complete Check	Enterprise Move Request [enterprise_move_request]	Check that all tasks are closed complete before setting request state
Autopopulate from location	Enterprise Move Detail [move_detail]	Populate from location when a user is added
hide submit	Move Request [move_request]	Hide submit button when needed
Lock down form when request approved	Enterprise Move Detail [move_detail]	Prevent changes to the request after tasks are created
Info message	Move Request [move_request]	Add an info message when state is Ready
Remove extra buttons on Workbench	Enterprise Move Scenario [enterprise_move_scenario]	Remove the extra buttons (various icons, and so on) while in a modal
Warn from_location not a Facility Space	Enterprise Move Detail [move_detail]	Warn the user when the selected **from location** is a cmn_location and not a facility space (fm_space)
Warn from_location not a Facility Space	Move Request [move_request]	Warn the user when the selected **from location** is a cmn_location and not a facility space (fm_space)
Remove bad date2	Move Request [move_request]	Remove default date
Set Building and Floor	Enterprise Move Detail [move_detail]	Automatically sets the destination building and floor when the **to location** is selected
Warn to_location not a Facility Space	Move Request [move_request]	Warn the user that the selected **from location** is a (cmn_location)

Notification email scripts installed with Facilities Move Management

Email notifications are a way to send selected users email or SMS notifications about specific activities in Facilities Move Management.

Facilities Move Management adds the following email notifications.

Notification email script	Description
move_delegator_link	Generates the link that is provided in the email sent to move delegators

Business rules installed with Facilities Move Management

A business rule is a server-side script that runs when a record is displayed, inserted, updated, deleted, or when a table is queried.

Facilities Move Management adds the following business rules.

Business rule	Table	Description
Force Workflow Update	Enterprise Move Request Task [enterprise_move_request_task]	Forces workflow to trigger on close
Move to/from Facility Spaces only	Enterprise Move Detail [move_detail]	Only allows facility space (fm_space) as to or from location
Pending Assignment - Update Task State	Move Task [move_task]	Sets state to pending assignment
Set request to WIP	Enterprise Move Request Task [enterprise_move_request_task]	Set request to work in progress when a task is started
Keep request scenario reference in synch	Enterprise Move Scenario [enterprise_move_scenario]	Update scenario on enterprise move request
Move Catalog out of draft	Move Request [move_request]	If the request was created through the facilities catalog, set the state to **Ready**
Move users and assets	Enterprise Move Request Task [enterprise_move_request_task]	Update user and asset location
Set Requested by user	Move Request [move_request]	Set caller and requested by user
Enforce Building when floor is populated	Enterprise Move Detail [move_detail]	Prevent the selection of a building that does not contain a floor
Set Building when floor is populated	Enterprise Move Detail [move_detail]	Set the building when one of its floors are selected
Do not remove scenario from move request	Enterprise Move Request [enterprise_move_request]	Maintain the scenario with the move request
Trigger workflow on update	Move Task	Force workflow to start

Business rule	Table	Description
	[move_task]	
Prevent non-space to_location	Enterprise Move Detail [move_detail]	Ensure the **to location** is a facilities space (fm_space)
Prevent Duplicates	Enterprise Move Detail [move_detail]	Do not allow the same move detail record to be added more than once
Set Move Request	Enterprise Move Request Task [enterprise_move_request_task]	Set the parent request
Check for open tasks	Enterprise Move Request [enterprise_move_request]	Prevent a request from being closed when tasks are still open
Autopopulate Move Delegator	Enterprise Move Delegator [move_delegator]	Set the delegator
Add messaging	Enterprise Move Request [enterprise_move_request]	Add help messaging on the move request
Uncheck task options	Enterprise Move Request [enterprise_move_request]	
Set Assigned	Enterprise Move Request Task [enterprise_move_request_task]	Set the state to Assigned when Assigned to is not empty and State is Pending Assignment

Workflows installed with Facilities Move Management

Workflows provide a drag-and-drop interface for automating multi-step processes.

Facilities Move Management adds the following workflows.

Workflow	Description
Single User Move	Handles single user move requests
Enterprise Move	Handles enterprise move requests

Activate Facilities Visualization Workbench

The (com.snc.facilities_service_automation) and the (com.snc.facilities_service_automation.fvw) plugins are now deprecated and no longer supported or available for new activation.

Before you begin
Role required: admin
For details, see the Deprecation Process [KB0867184] article in the Now Support knowledge base.

About this task

Important:

This plugin is no longer available for activation.

For more details on the process of deprecation and its effects on your usage of the application, see the Plugin Deprecation (End-of-Life) Policy and Process [KB0621681] article in Now Support.

If you are an existing user of Facilities Service Management, you can continue to use the application.

Related topics

List of plugins

Activate Facilities Service Management

Activate Facilities Visualization Workbench

Facilities visualization workbench configuration

Space administrators configure properties on the workbench. In the application navigator, **Facilities** > **Workbench Configuration** contains the configuration settings divided into sections.

Map properties

Map properties allow some customization on the floor plan. For a full description of each property, see Space Management properties.

Parsing configuration

Map features [fm_facility_feature] define how to handle features during processing map set files and running transforms. A basic set of Map Features are pre-loaded for your use under **Space Management** > **Map Configuration** > **Feature Definitions**.

To create spaces for a feature type during parsing:

- Set **Create spaces** to true.
- Set the default space type to specify the class of space that is created.

Icon definition

A set of Map Icons [fm_icon] is pre-loaded for your use.

- These icon definitions affect both parsing and runtime configuration.
- If the geoJSON property of type "point" type is found during parsing and its name matches the **Parsing name** field, then an icon is added to the map.
- Set **Active** to true to show the icons on the map.
- Set **Show by default** to true so the icons appear on the initial map load.

Map colors

A set of Feature Colors [fm_map_color] is preloaded for your use.

- The **Color** and **Outline** color fields support hex values, RGB values, and HTML colors.
- The **Opacity** field supports decimal values from 0 to 1 to set the opacity of the feature on the map.
- The **Outline thickness** field supports whole numbers to set the outline thickness of a feature on the map.

Map labels

Specify which space types have labels shown by default on the interactive map. The settings section of the map lets you change the currently selected values.

- For each facilities space type, set **show label** to true for its label to be visible on the map by default.

Map tasks

Specify which **Tasks** to show and search on the workbench.

- For each facilities map task, set **show task** to true for its pin to be visible on the map by default.
- Showing tasks can be limited to specified roles (not specifying a role shows tasks to all who can see them based on security settings).

Map filters

Specify filters to apply to the map, coloring spaces based on conditions specified.

- Limit showing map filters to **Roles** or specific users with the **Owner**, **Public**, and **Roles** fields.
- Example filters are provided as a default.

Map menu items

Specify which catalog items are displayed in the pop-up menu on the workbench.

• To view catalog items from **Workbench**, right-click on a space and the catalog items appear. Or, click a space and the catalog items appear under **Related Links**.
• For each facility map menu item, select the **Roles** for which this catalog item is visible. No defined roles means that the catalog item is available to all users.
• For each facility map menu item, select the **Order** in which this entry appears.
• For each facility map menu item, select the **Campuses** for which this catalog item is visible. No defined campuses means that the catalog item is available on all campuses.

Note:
You can show catalog items from any catalog (Facilities, IT, HR, and others).

URL parameters

Workbench supports URL parameters. URL parameters provide configuration information for a form or list.

Note:
The URL parameters are listed in order of dependency. For example, syspar_drawingId requires sysparm_campusSysId in the URL parameter.

The URL parameters supported are:

URL parameters	Description
sysparm_campusSysId	Loads the map to a Campus [fm_campus] identified by its sys_id.
sysparm_drawingId	Loads the map to a Building [alm_building] identified by its external_building_id (requires sysparm_campusSysId).
sysparm_levelId	Loads the map to a Level [fm_level] identified by its external_level_id (requires sysparm_drawingId).
sysparm_spaceid	Loads the map to a space [fm_space] identified by its external_space_id (requires sysparm_levelId).
sysparm_scenarioSysId	Loads the map to a Scenario [enterprise_move_scenario] identified by its sys_id (requires Facilities Move Management plugin).
sysparm_zoneSysId	Loads the map to a zone [fm_zone] identified by its sys_id. Multiple spaces make up a zone.
sysparm_filterSysId	Applies a filter [fm_map_filter] for a loaded map. Filters highlight spaces based on conditions.
sysparm_refreshInterval	Enter a whole number value to specify a rate in minutes to automatically refresh applied filters.
sysparm_labelDisplay	Specify the label to appear for a map (can be changed under settings on the map).
sysparm_move	Loads a move query for a map.
sysparm_tab	Specify the number of the tab to default to on the map.
sysparm_fromWidget	Triggers event "space.clicked" on a space click, which returns {'sys_id': SPACESYSID, 'displayName': SPACEDISPLAYNAME}, or hiding space which returns {'sys_id':'', 'displayName':''};

Migrate facilities data to new space definition tables

To continue using the image-based floor plans with the new space definition, migrate your data from the old tables to the new space definition tables.

Before you begin
Role required: facilities_admin

About this task
The migration process only migrates complete data. A space that is not in a level or a level not in a building is not migrated. This behavior can be changed by updating the migration script include. Floors that are not connected to a building are not migrated, nor are spaces that are not part of a floor or building. As part of the migration process, the legacy spaces, floors, and buildings are marked as migrated.
The migration path for the old tables to the new are:

- [cmn_building] migrates to [alm_building]
- [fpv_floor] migrates to [fm_level]
- [fpv_element] migrates to [fm_space]

Procedure

1. Navigate to **All** > **Facilities** > **Administration** > **Migrate**.
2. Click **Migrate**.

Result
The following results can be expected:

- Data is migrated to the new facilities management tables for buildings, floors, and spaces.
- After a building, floor, or space is migrated, it is marked as migrated, and is not able to be migrated again.

> **Note:**
> Any object that is marked as migrated does not get migrated again, so you can safely run through the migration process multiple times without creating duplicated objects in the space tables. This behavior can be modified in the migration script include or by resetting the migration flag on the original objects.

Installed with Facilities Visualization Workbench

Several types of components are installed with the Facilities Visualization Workbench plugin.

Demo data is available with Facilities Visualization Workbench.

Tables installed with Facilities Visualization Workbench

Facilities visualization workbench adds the following tables.

Table	Description
Building [alm_building]	Stores building records
Bathroom [fm_bathroom]	Stores bathroom records
Campus [fm_campus]	Stores campus records
Conference Room	Stores conference room records

Table	Description
[fm_conference_room]	
Cubicle [fm_cubicle]	Stores cubicle records
Elevator [fm_elevator]	Stores elevator records
Hallway [fm_hallway]	Stores hallway records
Level [fm_level]	Stores level records
Spaces to Zones [fm_m2m_space_to_zone]	Stores space assignment to zone records
Associated User [fm_m2m_user_to_space]	Stores associated user records
Associated Department [fm_m2m_department_to_space]	Stores associated department records
Office [fm_office]	Stores office records
Point [fm_point]	Stores point records
Facility Space [fm_space]	Stores facility space records
Stairs [fm_stairs]	Stores stairs records
Facility Zone [fm_zone]	Stores zones records
Facilities Data [imp_facilities_data]	Import set table used as the source for transforming facilities space records
Facilities Floor Data [imp_facilities_level_data]	Import set table used as the source for transforming facilities floors

Table	Description
Facility Map Option [fm_map_option]	Specify what space types show labels by default
Facility Map Task Option [fm_map_task]	Specify what task types can be seen on a map
Facility Feature [fm_facility_feature]	Specify what features are parsed
Space Icon Mapping [fm_m2m_space_icon]	Associate an icon with a space
Facilities Map Menu Item [fm_map_menu_item]	Specify what catalog items are available on a map
Fm Map Filter [fm_map_filter]	Create a custom filter for a map
Facilities Map Set Transformed [fm_map_set_transformed]	Holds transformed GeoJSON as attachments, with the transformation showing the map in a "straight up" manner
Facility Icon [fm_icon]	Specify icons that can be added to the map
Facilities Map Set [fm_map_set]	Holds GeoJSON files as attachments
Facility Map Color [fm_map_color]	Specifies map colors

Space Management properties

Space Management Properties are available to configure floor plan, parsing, and space management defaults settings. You can control default settings like the color for selected space, compass on a floor plan, and logos and titles to appear.

Space Management organizes properties into these sections:

- Floor Plan
- Parsing
- Space Management

Navigate to **Space Management** > **Map Configuration** > **Properties**.

Floor Plan

Property	Description
The logo to use for the header of the interactive floor plan [facilities.management.fvw.workbench.logo]	Click to select a logo that appears in the top, left corner of an interactive floor plan.
The title to show on the workbench [facilities.management.fvw.workbench.title]	The title to show on the workbench. • Type: string • Default value: Workbench
Use user's location as the default campus when available [facilities.management.fvw.default.campus]	The location of the user is used as the default campus when available. • Yes: Use the location of the user. • No: Do not use the location of the user.
Allow copying a URL link when available on the workbench [facilities.management.fvw.allow.copy.url]	Allow copying a URL link when available on the workbench. • Yes: Allow copying of a URL. • No: Do not allow copying of a URL.
Default to showing the compass on the floor plan [facilities.management.fvw.show.compass]	Determines if a compass appears in the top, right corner of a floor plan to provide directional orientation.
The maximum length allowed for a label before using ellipses [facilities.management.fvw.max.label.length]	The maximum number of characters allowed for a label before using ellipses. • Type: integer • Default value: 30
The color to use for highlighting the selected space on the floor plan map [facilities.management.fvw.highlight.color]	The color that can be used for highlighting a specific space on the floor plan map. • Type: string • Default value: #F5F500
The colors for applying filters to the workbench [facilities.management.fvw.filter.colors]	The colors available for applying filters to the workbench. • Type: string • Default value: #278ECF; #4BD762; #FFCA1F; #FF9416; #D42AE8; #535AD7; #FF402C; #83BFFF; #6EDB8F; #FFE366; #FFC266;

Property	Description
	#D284BD; #8784DB; #FF7B65; #CAEEFC; #9ADBAD; #FFF1B2; #FFE0B2; #FFBEB2; #B1AFDB
The colors for availability filtering on the workbench [facilities.management.fvw.availability.colors]	The colors for availability filtering on the workbench. • Type: string • Default value: #71e279; #fcc742; #278efc; #f95050; #00A0A6; #fc8a3d; #00FFFF; #b1afdb
Maximum number of search results to return per level on spaces tab in workbench [facilities.management.fvw.max.results.per.level]	Maximum number of search results to return per level on spaces tab in workbench. • Type: integer • Default value: 20
Maximum number of search results to return per campuses on spaces tab in workbench [facilities.management.fvw.max.results.per.campus]	Maximum number of search results to return for campuses on spaces tab in workbench. • Type: integer • Default value: 20
Maximum number of search results to return for other campus on spaces tab in workbench [facilities.management.fvw.max.results.per.other.campus]	Maximum number of search results to return for other campuses on spaces tab in workbench. • Type: integer • Default value: 20
Maximum number of search results to return when searching for tasks in workbench [facilities.management.fvw.max.requests.per.search]	Maximum number of search results to return when searching for facilities/move requests tabs in workbench. • Type: integer • Default value: 200
Maximum number of spaces per zone to render for the zone edit tab [facilities.management.fvw.max.spaces.per.zone]	Maximum number of spaces per zone to render for the zone edit tab. • Type: integer • Default value: 50
Maximum number of tasks to return per level on workbench [facilities.management.fvw.max.requests.per.level]	Maximum number of search results to return per level on spaces tab in workbench.

Property	Description
	• Type: integer • Default value: 20

Parsing

Property	Description

Specifies whether we should preserve the field values of records when parsing geoJSON files if the record already exists [facilities.management.fvw.geojson.parsing.preserve.fields]	Determines how to save the field values of existing records when parsing geoJSON files or to delete them.
	• Yes: Do not change when parsing new map.
	  ○ The building name.
	  ○ The level name, level abbreviation, and the main level flag.
	  ○ The space name and internal name.
	• No: Use values from latest geoJSON file.

Specifies whether we should preserve the field values of records when parsing geoJSON files if the record already exists [facilities.management.fvw.geojson.parsing.preserve.fields]	If the space exists, specifies whether the sys_class_name of a space is preserved when parsing geoJSON files. • Yes: Save • No: Update **Note:** The sys_class_name (fm_bathroom, fm_cubicle, and so on) are only updated if both parsing properties are set to **No**.
Specifies whether we should preserve the sys_class_name of a space when parsing geoJSON files if the space already exists [facilities.management.fvw.geojson.parsing.preserve.sys_class_name]	Specifies how to handle area parsing. • Preserve Existing Area: Saves the area space when the current value is greater than 0.0001 in the **Area** field in the **Space** form. • Overwrite Area: Always updates the area of a space from an area file. • Ignore Area Files: Does not parse any existing area files within the map set. **Note:** Regardless of the flags, area roll ups are calculated after parsing.

Space Management

Properties	Description
The system base area unit for facilities space tables. Set to true to use meters squared, or false to use feet squared [facilities.management.fvw.area.unit]	The system base area unit for facilities space tables. Set to true to use meters squared, or false to use feet squared. • Type: true | false • Default value: false

System property categories installed with Facilities Visualization Workbench

Facilities visualization workbench adds the following system property categories.

System property category	Description
Floor Plan Properties	Grouping for interactive floor map properties

Script includes installed with Facilities Visualization Workbench

Script includes are used to store JavaScript that runs on the server.

Facilities visualization workbench adds the following script includes.

Script include	Description
FacilitiesViewerUtils	Utility methods
FacilitiesViewerAJAX	Utilities used by the UI macros and the map set parsing
FacilitiesGeoJsonParser	Configurable parsing support for feature properties
FacilitiesCampusMapFileParser	Contains functions that take file attachments and process them to extract facilities spaces for the Facilities Viewer Workbench
FacilitiesMapFilterUtils	Utility for map filtering capabilities
FacilitiesConstants	List of constants used in Facilities Management and Facilities Visualization Workbench

Client scripts installed with Facilities Visualization Workbench

Client scripts define custom behaviors that run when events occur like when a form is loaded or submitted, or a cell changes value.

Facilities visualization workbench adds the following client scripts.

Client script	Description
Reload form on attachment window	Reload the external map data form every time the attachment window closes to hide or display the process map file UI action.
Hide field for space tables	Show or hide the "field" field when the "table" field value is an extension of "cmn_location" or not.

Business rules installed with Facilities Visualization Workbench

A business rule is a server-side script that runs when a record is displayed, inserted, updated, deleted, or when a table is queried.

Facilities visualization workbench adds the following business rules.

Business rule	Table	Description
Update default campus	Campus [fm_campus]	Ensures one default campus
Prevent duplicates	Facility Map Option [fm_map_option]	Prevents duplicate map options
Max search results per campus < 50	System Property [sys_properties]	Limits the maximum search results to less than 50
Max spaces per zone < 1000	System Property [sys_properties]	Limits the number of spaces per zone to 1000
Build Scratchpad	Facilities Map Filter [fm_map_filter]	Provides a list of tables that are extended from fm_spaces. Used by the Hide field for space tables client script.
Prevent duplicates	Facility Map Color [fm_map_color]	Prevents duplicate map colors
Prevent duplicates	Facility Map Task Option [fm_map_task]	Prevents duplicate map task options
Facility map highlight color validation	System Property [sys_properties]	Validates the highlight colors on the floor plan map
Facility map color validation	Facility Map Color [fm_map_color]	Validates the colors on the floor plan map
Max facilities/ move search results< 5000	System Property [sys_properties]	Limits the maximum facilities move search results to less than 5000
Prevent duplicate	Facility Feature [fm_facility_feature]	Prevents duplicate facility features
Create spaces requires default class	Facility Feature [fm_facility_feature]	Prevents empty class by default on a space
Facility map outline color validation	System Property	Validates the outline colors on the floor plan map

Business rule	Table	Description
	[sys_properties]	
Max requests per level should be < 5000	System Property [sys_properties]	Limits the number of requests per level to 5000
Prevent duplicate	Facility Icon [fm_icon]	Prevents duplicate facility icons
Max search results for other campuses	System Property [sys_properties]	Limits the maximum search results for other campuses
Max search results per level < 50	System Property [sys_properties]	Limits the maximum search results per level to less than 50

Macros installed with Facilities Visualization Workbench

Facilities visualization workbench adds the following macros.

Macro	Description
floor_plan_show_space	If the location is on a map, it adds a map icon next to the location field
floor_plan_show_affected_ci	If the location of the CI is on a map, it adds a map icon next to the CI field
floor_plan_show_user	If the location of the user is on a map, it adds a map icon next to the user field

Facilities service management process

The facilities administrator creates the campus and configures the application with workflow, agent assignment, and other considerations. Employees make facilities and move requests that are tracked to specific locations anywhere on the campus.

The Facilities Service Management process is as follows:

1. A ServiceNow administrator activates and configures the Facilities Service Management application according to the needs and requirements for your organization.
2. A facilities administrator creates the campus and configures the spaces and assets contained within.
3. Users submit facilities requests.
4. Facilities staff qualify facilities requests. Which is the process of checking that the information in the request is complete, so facilities tasks can be assigned.
5. Administrators organize requests into tasks and dispatch those tasks.
6. Facilities staff members perform the tasks necessary to fulfill the request.
7. The assigned facilities staff members close their tasks, allowing the request to be closed.

Be sure to identify people within your organization that can be assigned the following facilities roles:

facilities administrator

Creates and modifies all campuses, building, floors, rooms, and floor plans. They can also qualify and dispatch requests.

facilities staff

Performs the work necessary to answer facilities requests.

facilities dispatcher

Schedules and assigns the tasks to facilities staff.

Facilities requests

A facilities request is a record in the system that tracks a proposed change to the physical facility of the organization. Typical facilities requests include the reporting of something bring broken or an issue like a beeping smoke alarm.

Facilities request creation

Facilities service management uses the common service management request management process. Any user can submit a facilities request through the Facilities catalog. Users with the facilities_staff role can also create and update facilities requests from the Facilities Request form.

Create a request through the facilities catalog

Employees use the Facilities catalog to submit requests. The catalog provides several different categories so users can choose the one that closely relates to their request.

Before you begin

Role required: none

Procedure

1. Navigate to **All** > **Self-Service** > **Facilities Catalog**.
2. Select a category.
3. If necessary, select a subcategory.
4. Fill in the fields on the form, as appropriate.

> **Note:**
> Some request forms do not contain every field described here. For more information, see Forms.

Facilities catalog request form

Field	Description
Opened for	The name of the person submitting this request. Select a new name if you are opening this request on behalf of another user.
Location	The location for this request.
Short Description	A brief summary of the request.
Detailed Description	A detailed description of the request.
Priority	The priority that describes the importance of this request.

5. Click **Submit**.

Create a request with the facilities request form

Facilities staff members create requests using the Facilities Request form, allowing them to associate the request with a configuration item (CI), like printers or projectors.

Before you begin

Role required: facilities_admin

About this task

Associating a CI to a request helps your facilities team understand which services have a negative impact by a facilities issue.

Procedure

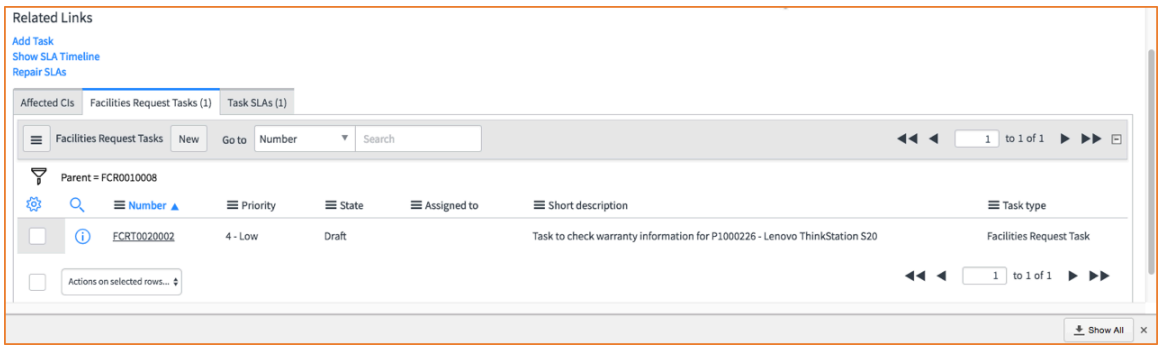
1. Navigate to **All** > **Facilities** > **Requests** > **Create New**.
2. Fill in the fields on the form, as appropriate.

Request form fields

Field	Description
Number	An auto-generated number that identifies the request record.
Opened	Auto-filled with the date and time the request was opened.
Caller	The name of the requester.
Priority	The priority that describes the importance of this request. By default, all requests are set to 4-Low.
Affected CI	A CI affected by this request.
State	The state that describes what work stage this request is in. By default, all requests are set to **Open**.
Location	The location associated with this request. Verify that the location is correct. If it is not, you can select another location record.
Category	A category the request falls under.
Template	The template for creating this request (optional). Click the reference lookup icon and select a template. The request is populated with all fields in the selected template including all subtasks and part requirements (if applicable).
Initiated from	Indicates that an ITIL task is required.
Short description	[Required] A brief summary of the request. Optionally, you can click the search knowledge icon to view articles in the knowledge base relating to this product model, plan, or CI. Doing so could provide a solution related to the reason you are submitting this request.
Description	A detailed description of the request. The description is always visible to the submitter. Therefore, if you add or modify the description for a request that another user submitted, the user is able to see the changes.
Work notes	Extra notes that you want to share between staff members assessing the request form. **Note:** A user who submits the request through the service catalog cannot see the work notes.

Field	Description
Checklist	Provides a checklist of tasks that must be completed before the case is closed. Create a unique checklist for the case or task. **a.** Click the down arrow button and select **Create new**. Or, select from the list of previously created checklist templates. **b.** Add tasks in **Add Item**. **c.** Click the down arrow and select **Save as Template**. **d.** Enter a template name. **e.** Select a user group that can use the template (optional).

3. Click **Save** from the **Form Context Menu** icon to save the request and remain on the **Facilities Request** form. The Related Links section appears.
When an Affected CI has a warranty date in the future, the **Facilities Request Task** tab appears as a task to check the warranty information.



Facilities request approvals

Approving a facilities request means that the request has been reviewed and is ready to be qualified for facilities task creation and assignment. When a request is sent to a user with the facilities_approver_user role, the approver has several choices.

If a facilities request is created from a template with a workflow in **Draft** state, and the **Ready to Work** button is clicked, the request goes to a **Submitted** state. The template workflow turns the **Submitted** state to **Ready** state. Users can include approvals in that workflow, if desired.

Facilities agent assignment

Depending on your settings in the facilities configuration screen, you can assign agents manually or using auto-assignment.

If you have a limited number of agents for completing requests or you simply do not want to auto-assign agents, you can use manual assignment.

Auto-assignment allows you to define criteria by which agents can be automatically selected to satisfy requests entered in service management applications. Based on the needs of your organization, you can configure the criteria for agent auto-assignment in the following ways.

When auto-assignment is enabled and a task is qualified or marked as **Ready for Work**, the following actions occur:

- Available agents are evaluated based on the criteria defined in the configuration.
- An appropriate agent is automatically assigned to the task.
- The task is moved to the **Assigned** state.

If more than one set of criteria is considered, such as location and skills, the agents are evaluated on the weighting property settings and other criteria.

If the task cannot be auto-assigned, a user with the dispatcher role adjusts the values in the request or task form and saves the record.

Related topics

Agent assignment methods

Schedule blackout periods

A blackout period prevents work from being performed in a defined area for a scheduled time period. Blackout periods can be defined for spaces, levels, buildings, campuses, and zones.

Blackout business rules check the **Schedules** field of the **Location** field on a request or task to assess if there are any schedule conflicts with the time span of current.expected_start to current.estimated_end.

Blackout period business rules

Business rule	Action
Display Space Schedule Conflicts (facilities_request business rule)	If the current.expected_start and current.estimated_end are populated and the location is a facilities space, informs the user of any possible schedule conflicts.
Display Space Schedule Conflicts (facilities_request_task business rule)	If the current.expected_start and current.estimated_end are populated and the location is a facilities space, informs the user of any possible schedule conflicts.
Prevent Space Schedule Conflicts (facilities_request_task business rule)	If there are any possible schedule conflicts between `now` and `now + estimated_work_duration`, prevent the user from starting work. To override, a facilities_admin can use a field override_schedule_conflict

Create a facilities schedule blackout

Blackout periods can be defined for spaces, levels, buildings, campuses, and zones. The Facilities_admin can override blackout period requests.

Before you begin

Role required: Facilities_admin (create), Facilities_staff (view)

Procedure

1. Navigate to the list of spaces, levels, buildings, campuses, or zones within the **Space Management** application. For example, **All** > **Space Management** > **Floor**
2. Select a record for the space you want to add the blackout period.
3. In the **Related Links**, click **View Facilities Schedule**.
4. Fill in the fields on the form, as appropriate.

Create a facilities schedule blackout

Field	Description
Schedule	The new or existing cmn_schedule
Schedule name	The name of the cmn_schedule
Blackout name	The name of the blackout
Start	Date to start the blackout schedule
End	Date to end the blackout schedule
Blackout spans for	Display blackout spans for selected time frame

5. Click **Add**.

Collaborate on a request

Within a request, you can enter comments that are visible to the submitter, allowing for collaboration between the two of you. For collaboration with other agents, you can enter comments that are not visible to the submitter.

Procedure

1. Navigate to **All** > **[SM application]** > **All [SM application] Requests**.
2. Open the request you want to collaborate on.
3. In the **Additional comments** (Customer visible) field, enter the comments that you want the person who submitted the request to see.
   The submitter can see the comments in this field and add more comments as necessary. Update this field as many times as necessary to correspond with the submitter.
4. To correspond with other agents, enter content that you do not want the submitter to see in the **Work notes** field.

Change the location of a request

After opening a request, you can modify the details and update it.

Procedure

1. Perform one of the following actions:
   - **Facilities** > **Open** and open the request you want to modify.
   - **Facilities** > **View Floor Plans**, click the request icon ( ), and click the request number on the list that appears.
2. On the Facilities Request form, click the reference lookup icon beside **Room**.
   A list of locations defined for your organization appears. A location could be a room or any point on a floor plan.
3. Select the correct location.
   If you don't see the location, contact the facilities administrator to add the location to the floor plan.

Close a request

When you close a request, you can add details that you want the submitter to be aware of.

Procedure

1. Navigate to **All** > **[SM application]** > **Assigned to me**.
2. Click the request number.
3. In the **Additional comments** field, enter any final notes or comments.
4. Change the **State** field to the appropriate closed state.
5. Click **Update**.

Closed and completed requests

When the **Request lifecycle** option is set to **request-driven**, the assigned agent can complete and close the request once all the tasks in the request are complete.

A **Close Complete** button is visible to the agent assigned to the request. The agent enters work notes before clicking **Close Complete**. When the button is clicked, the open task is automatically completed (if applicable) and the request transitions to the **Complete** state.

Note:
To view all closed tasks, navigate to **All** > **Field Service** > **All Work Orders** and enter **Close Complete** in the **State** field.

Facilities request tasks

A facilities request contains one or more tasks. These tasks allow qualifiers to define separate activities that must be done to complete a facilities request.

Administrators can create multiple tasks under a single request. Splitting a request into separate tasks, when necessary, enables qualifiers to:

- Assign different aspects of a request to different staff members.
- Assign tasks to staff members with different skill sets.
- Assign tasks to staff members 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 staff members.
- Schedule more tasks, if necessary, to complete the request.

Users with these roles can edit schedule times, including windows and planned durations. The Estimated end time is calculated from the expected start time and the work duration and is read-only.

- *<sm application>_qualifier:* Tasks in the Draft state.
- *<sm application>_dispatcher:* Tasks in the Pending Dispatch state.
- *<sm application>_admin:* Tasks in Draft or Pending Dispatch state.

Create a facilities request task

Facilities request tasks are created from facilities requests.

Before you begin

Role required: facilities_admin or facilities_qualifier

Procedure

1. Navigate to **All** > **Facilities** > **Requests** > **All Facility Requests**.
2. Open the desired request.
3. Click the **Add Task** related link.
4. Fill in the fields on the form.

Facilities request task

Field	Description
Number	Auto-generated identification number for the task.
State	Current state of the task, such as **Accepted** or **Closed Complete**. States progress automatically as users complete the work for each successive state and appears on the subway map at the top of the form.
Parent	Facilities request that this task is associated with.
Assignment group	Group from which an individual facilities staff member is selected to complete the task. The lookup list shows only the assignment groups associated with the selected **Location**. If the **Assignment Group** field is empty, the system searches for the group covering the territory that includes the location of the task.
Cloned from	Record number of the task this task was cloned from, if any.
Assigned to	The individual staff member to complete the task, selected from the **Assignment group**. The **Assigned to** field lookup list shows only those staff members in the assignment group who have all the **Skills** required. If no exact match of skills is found, the lookup list shows all assignment group members.
Override schedule conflict	
Location	The geographical area of the request. The location is critical for determining which staff member is assigned to the task.
Template	
Skills	Abilities necessary to execute the task. The system automatically completes the **Skills** field based on the selection in the **Affected CI** field on the associated request. If you change the affected CI on the request, the system adds any skills required by the new CI to the skills already listed here.
Short description	Brief explanation of the task.
Description	Exact technical description of the unit of work to be performed. Provide as much detail about the problem as possible to avoid extra communication with the caller in later stages of the request.
Work notes	Information about the task as it progresses through each state. Work notes are not visible to customers.
Schedule	
Scheduled start	Date and time that work on the task is expected to begin. The scheduled start time is set automatically to one hour after the scheduled travel start time. For example, if **Scheduled travel start** is 10:00 AM, the **Scheduled start** time is set

Field	Description
	to 11:00 AM. When the task reaches the **Pending Dispatch** stage, the default value can be edited. A staff member cannot be scheduled for two tasks at the same time. If a specified time is already allocated to another task, an error message is displayed. This field is required when the task is assigned or when the state is **Assigned**, **Accepted**, **Pending Dispatch**, or **Work In Progress**.
Estimated end	[Read-only] Date on which work on the task ends. The date is automatically calculated based on the **Scheduled start** and **Estimated work duration**.
Estimated work duration	Estimated amount of work time. One hour is set by default. The default value can be edited during the **Draft** or **Pending Dispatch** stage. When defining the estimated work duration, it cannot exceed the total time of the window.
Actual work start	Time when work began. This field is not available until **Actual travel start** time is added manually or the **Start Travel** button is clicked.
Actual work end	Time when work on the task was completed.
Actual duration	[Read-only] Total amount of time spent traveling to the site and completing the task. This value is automatically calculated based on the **Actual travel start** and **Actual work end** times.

5. Click **Submit**.

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 .

For more information on Work order task start and end dates, see .

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.

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.
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**.

Auto-dispatch a task

When a task is auto-dispatched, the application matches the task with a nearby agent having the necessary skills and schedule that can accommodate the task.

Procedure

To dispatch a task from a task record automatically, click **Auto-Dispatch**.

If the system cannot find an appropriate agent, it displays a failure message and leaves the task in the **Pending Dispatch** state.

Domain separation and Facilities Service Management

Domain separation is supported in Facilities Service Management. Domain separation allows you to separate data, processes, and administrative tasks into logical groupings called domains. You can then control several aspects of this separation, including which users can see and access data.

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.

Related topics

Domain separation for service providers

Space management

The concept of space is part of the Facilities Service Management application. Space provides a definition at all levels with the same unit measure, and presents metrics that are readily available for analysis. These metrics include occupancy percentage, total space available, and so on.

Note:
This feature is no longer available for new customers.

The additional benefits of space management include:

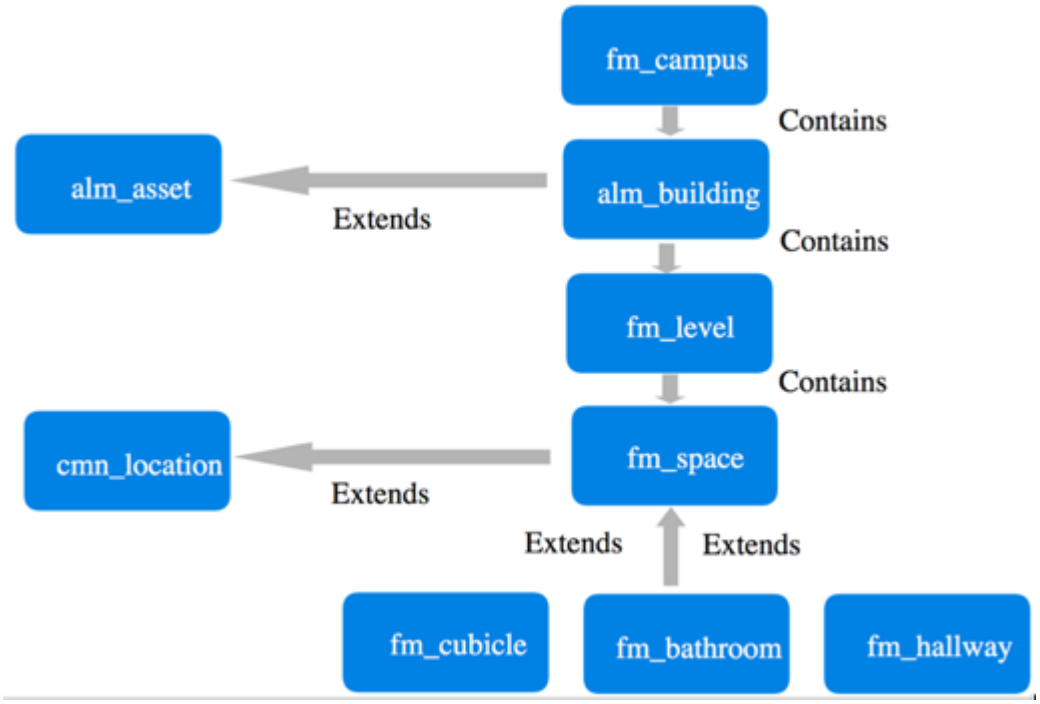
- Ability to forecast future space requirements
- Simplification of the charge back process
- Space analysis for actual and planned use cases
- Addition of zones for creating different collections of spaces

Space hierarchy

A natural hierarchy models all the spaces of your organization. You can use this information to determine how effectively you are using your facilities space. The hierarchy from top to bottom is campus, building, level (floor), and space.

You can create types of spaces as needed. New space definition tables extend the [fm_space] table. Be sure to set the proper ACLs. The following graphic depicts how tables are related to one another.

Space table hierarchy

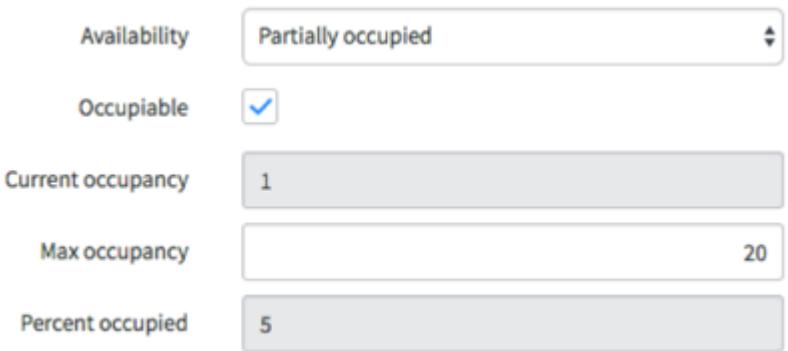


Space roll up calculations

The Facilities Service Management application can roll up occupancy, area, and usage information from lower to higher levels in the space hierarchy. Roll ups are spaces designated as available for occupancy. The occupancy values from that space roll up to the level above them.

When you designate a space as available for occupancy, you can also specify the maximum occupancy. Depending on the actual occupancy, a percentage appears to show how much space is available. A script include modifies the roll-up calculations.

Available for occupancy selected and dependent fields



The values that roll up are:

- Occupancy
- Max occupancy
- Assignable area

The percent occupied calculation takes place based on the current and max occupancy values.

Associated users

You can assign users to more than one location, with a primary location.

Assign employees a primary location. A business rule ensures that an employee can have only one primary location. Employees that travel between campuses can have an assigned space on each campus. The [fm_m2m_user_to_space] table stores these records. Adding a user automatically updates the current occupancy and availability status of the space and performs the percent occupied calculation.

Note:
Space becomes available when a user becomes inactive.

Associated departments

You can assign spaces to more than one department for cost allocation and reporting purposes.

The Associated Department [fm_m2m_department_to_space] table extends the fm_space table, containing the relationship of departments and percentage ownership. A percentage automatically calculates after setting the weight for each department. A business rule sets the percentages based on weight so that the sum of percentages equals 100%.

GeoJSON map files

The floor plan visualization feature uses files in the GeoJSON format, an open standard for representing geographical features.

Due to the complexity of each file, work with Micello, Inc. or some other vendor to create the floor plan for your organization.

Note:
However, creating a floor plan requires GeoJSON knowledge. Ensure that you are familiar with geospatial data and/or GeoJSON data before attempting this task.

For information about the GeoJSON standard, see http://geojson.org. Object properties in the GeoJSON files are used to create buildings, floors, and spaces.

When cloning an instance, sys_attachments including GeoJSON maps are not cloned by default. See the **Exclude large attachment data field** in Request a clone .

Note:
As an option, you can download the GeoJSON maps from the source tables (fm_map_set and fm_map_set_tranformed) and upload to the destination.

Community file

The community file contains information about the campus, including the number of buildings and the number of floors for each building.

The file naming standard is:

- Must begin with `map`
- Must contain `-geojson-com-map-`

For example, `map-23641-mv-1-ev-1-geojson-com-map-fv-2.json`

Campus information

Sample code for campus and map set properties.

```
"entity_version": 1,
    "id": 23641,
    "languages": [
        "en"
    ],
    "location": {
        "coordinates": [
            -117.20527,
            32.882205
        ],
        "type": "Point"
    },
    "map_version": 1,
    "obj_type": "CommunityMap",
    "properties": {
        "city": "San Diego",
        "com_type": "Business Campus",
        "country": "US",
        "default_lang": "en",
        "name": "ServiceNow - San Diego Campus",
        "postal code": "92121",
        "state": "CA",
        "street address": "4810 Eastgate Mall"
    }
```

- The `id` is a unique id for this campus and is mapped to the database as the **external campus id** field in the campus table.
- The `entity_version` and `map_version` are the versions of the map sets, helpful when a campus has multiple map sets.
- The `location` contains WGS 84 coordinates providing the overall latitude and longitude of the campus.

> **Note:**
> Latitude and Longitude are set at the Campus level only.

- Other data provides the name and address of the campus and is used to create a location in the location table for the campus.

Building information

Each drawing in the campus map file represents a building or campus overview. The campus overview is a map that shows the entire campus, and is included for multi-building campuses only.

```
{
            "id": 28500,
            "levels": [

           . . . . . . . . . . . . <See level section>>

            ],
            "obj_type": "Drawing",
            "properties": {
                "display_name": "SD Campus Building 1",
```

```
                "map_type": "Shopping Mall",
                "name": "San Diego Campus Building 1"
            },
            "ref_frame": {
                "angle_deg": -16.554,
                "height": 782.891,
                "local2m": 0.05893868944676606,
                "transform": [
                    6.043292819573627e-07,
                    1.508500607965198e-07,
                    1.7962840831123188e-07,
                    -5.075094178111973e-07,
                    -117.206364,
                    32.882096
                ],
                "width": 1505.19
            }
        },
```


- This information is used to create a building in alm_building.
- The `id` is mapped to the external building id in alm_building.
- The `display_name` is used to name the building.
- The `ref frame` is used to align the building horizontally and vertically. The GeoJSON data, contains WGS 84 information used to rotate the image so it displays at a natural horizontal orientation.

Level information

Each building (drawing) has a list of levels. Each level is a map and represents one floor, though that is not a rule.


```
{
                    "id": 46475,
                    "obj_type": "Level",
                    "properties": {
                        "main": true,
                        "name": "1",
                        "parent_level": 46465,
                        "root_geom": 13958749,
                        "zlevel": 0
                    }
                },
                {
                    "id": 46477,
                    "obj_type": "Level",
                    "properties": {
                        "name": "2",
                        "type": "indoor",
                        "zlevel": 1
                    }
                },
                {
                    "id": 46478,
                    "obj_type": "Level",
                    "properties": {
```

```
                    "name": "3",
                    "type": "indoor",
                    "zlevel": 2
                }
            }
```

- Each level creates an fm_level record.
- The `id` is mapped to the external level id in fm_level.
- The `name` is mapped to the name field in fm_level.
- The `zlevel` orders the levels (0 is ground level).
- The `main` property assigns the main level of the building and is used as the default map when a building is selected.
- The `id` is used to find the correct level geometry file.

Level geometry file

The level geometry file contains all the geometry for a given level. Each file is one map that can be rendered in the ServiceNow platform.

The file naming standard is:

- Name with the `id` of the level found in the community map file
- Must contain `-geojson-geojson-level-geom-`

For example, level 46475 is found in a file named `map-23641-mv-1-ev-1-geojson-geojson-level-geom-46475-fv-2.json`

The main component of the level file is an array of features, and looks like:

```
{
            "geometry": {
                "coordinates": [
                    [
                        [
                            -117.2057125,
                            32.8818922
                        ],
                        [
                            -117.2057223,
                            32.8819201
                        ],
                        [
                            -117.2057559,
                            32.8819117
                        ],
                        [
                            -117.205746,
                            32.8818838
                        ],
                        [
                            -117.2057125,
                            32.8818922
                        ]
                    ]
                ],
```

```
            "type": "Polygon"
        },
        "id": 13960404,
        "label_area": [
            -117.20573465198783,
            32.88190207162559,
            2.9198852018440062,
            2.9198852018440062,
            1.2818771600723267
        ],
        "location": {
            "coordinates": [
                -117.2057347,
                32.8819021
            ],
            "type": "Point"
        },
        "obj_type": "Geometry",
        "properties": {
            "display_name": "Reef Shark",
            "entities": [
                1473100
            ],
            "facility": "room",
            "int_address": "Room B1-132"
        },
        "type": "Feature"
    },
```


- The `geometry` object is the geoJSON representation of points that make up the object. For more information about the GeoJSON standard, see http://geojson.org.
- `Geometries` can be turned into fm_space records.
- The `id` is mapped to the external space id on the fm_space record.
- The `display_name` is the name of the space.
- The `type` is the most important property. In the example, the class is a `facility` and the type for that class is a `room`. When parsing, these values determine:
  - If an fm_space record is created for the geometry
  - If the fm_space has a subtype
  - If any default icons are assigned to a space
  - If any default colors are assigned to the map

Valid classes

There are certain classes and class types that are valid for the level geometry file.

- Facility
  - Bathroom
    - Gender
      - Female
      - Male
      - Family
  - Elevator
  - Escalator
  - Stairs
  - Room
  - Door
  - Wall
  - Hallway
  - Inaccessible space
  - Wall
  - Window

- Safety
  - Defibrillator
  - Fire extinguisher
  - First aid

- Service
  - Atm
  - Power
  - Changing station
  - Wifi

- Area
  - Smoke
  - Rest area

- Furnishing
  - Chair
  - Table
  - Shelf
  - Bin

Process GeoJSON map files

Processing GeoJSON map files includes parsing data from a map and importing that information to the campus space management tables. Use this process to set up your spaces or update bulk changes to your campus without having to enter each change manually.

Before you begin

Role required: facilities_admin

About this task

To process the files properly:

- Include the area file in the map set and follow the proper naming convention (`-area-geom-`)
- Set the *facilities.management.fvw.geojson.space.area.parsing* property to true

Procedure

1. Navigate to **All** > **Space Management** > **Campus**.
2. Click the name of the campus.
3. Click the **Facilities Map Sets** related list to see all the maps sets associated with this campus.
4. Click the name of the map set you want to parse.
   All files associated with that map set are shown as attachments.
5. Click **Process the Map Files** related link.
   All the files that will be read and parsed (processed) are shown.
6. Click **Preview**.
   A summary of all the spaces that will be created are shown.

Process map files summary

Field	Description
Summary	The total for each space that will be added or retired: buildings, levels, spaces
Facility space creation	
Feature type	All the types of spaces that will be created
Class name	
Creating	The total amount of each space type that will be created.
Existing	The existing amount of each space type.
Ignoring	The amount of each space type that not is created.
Icon Creation	
Icon	The names of all icons that will be included within this campus.
Parsing label	The parsing label of all icons that will be included within this campus.
Creating	The total number of that icon type that will be created for this campus.
Existing	The total number of that icon type that already exists within this campus.

7. Review the process map set summary carefully, to be sure if the space adds and ignores make sense.
   If the summary does not make sense, refer to the [fm_facility_feature] table.

8. Click **Process**.
   A summary of all spaces created is displayed when the map file has been processed.

Customer-created maps

Creating a map begins with the addition of the campus, then the buildings, floors, and other spaces.

Space roll up calculations

The Facilities Service Management application can roll up occupancy, area, and usage information from lower to higher levels in the space hierarchy. Roll ups apply to spaces that are designated as 'occupiable'. The occupancy values from that space are rolled up to the level above them.

An occupiable space is designated by selecting the check box on the facility space record. The **Current occupancy** and **Percent occupied** fields rely on the **Occupiable** option. Roll up calculations are modified in a script include.

Occupiable selected and dependent fields

The values that roll up are:

- occupancy
- max occupancy
- assignable area

The percent occupied calculation takes place based on the current and max occupancy values.

Add or edit a campus

A campus represents the top level in the organization space, and contains buildings and map sets. Details include its location, manager, gross area, and usable area. Occupancy and utilization metrics are calculated using these details.

Before you begin

Role required: admin

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Campus**.
2. Continue with one of the following options.

3. Fill in the fields on the form, as appropriate.

Campus form

Field	Description
Name	Enter a descriptive name for the campus.
Managed by	Select the employee who manages the campus.
Location	Select from the location hierarchy.
Gross area	The total floor space of a campus. Includes unusable space or excluded areas.
Usable area	The total useable area of a campus. Excludes unusable space or excluded areas.
Assignable area	Indicates a space roll-up calculation. See Space roll up calculations.
Area unit	Select the unit used for defining the space size: square feet or square meters.
Current occupancy	Displays the number of users currently associated with the space. The calculation is generated using business rules on the Associated User [m2m_fm_user_to_space] table.
Max occupancy	Enter the maximum capacity of users for this space. This value is intended for reporting purposes.
Percent occupied	The percentage of the total floor space that is occupied.
Default campus	Check to indicate that this campus is the primary location for the company.
Notes	Notes or comments about this campus.

4. Continue with one of the following options.

Related topics

Space roll up calculations

Add or edit a building

Buildings are assigned to campuses with a unique name, and contain floors or levels, a location, and utilization thresholds.

Before you begin

Role required: admin

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Building**.
2. Continue with one of the following options.

3. Fill in the fields on the form, as appropriate.

Building form

Field	Description
Name	Provide a descriptive name for this building.
Campus	Select the campus where this building is located.
Floors	Enter the number of floors the building has.
Location	Select the location for this building. Define the locations in Organization Management. A good practice is to select a location that is defined at the address, not at the floor level. Floors are defined separately in Facilities Service Management.
Assignable area	Displays only the area of the building that is assignable to users.
Usable area	Enter only the area of the building that is available for the creation of spaces.
Gross area	Enter the total area of the building, including non-usable and non-assignable spaces.
Area unit	Select the unit used for defining the space size: square feet or square meters. **Note:** The **Area unit** assigned to all spaces must be consistent for the roll-up calculations to work properly. See Space roll up calculations.
Current occupancy	Displays the number of users currently associated with the space. Calculation is generated using business rules on the Associated User [m2m_fm_user_to_space] table. **Note:** This field depends on the **Occupiable** option being selected.
Max occupancy	Displays max occupancy of the building based on rollup calculations from the spaces below it. **Note:** This field depends on the **Occupiable** option being selected.
Percent occupied	Displays the percentage of total space occupied based on rollup calculations from the spaces below it. **Note:** This field depends on the **Occupiable** option being selected.
Utilization Min	Enter a number to define the minimum level of utilization for the building.
Utilization Max	Enter a number to define the maximum level of utilization for the building.

4. Click **Save** and the **Related Links** section displays.
   - Show Floor Plan: Click to display a floor plan of the selected floor.
   - View Facilities Schedule: Click to create a facilities schedule blackout and prevent work from being performed in a defined area for a scheduled time period.
5. Three tabs appear:
   - Levels: List of levels for the building. Click **New** to create a level or on an existing level to edit.
   - Assets: List of assets associated with the building. Click **New** to create an asset or on an existing asset to edit.
   - Expense Lines: List of expense lines for the building. Click **New** to create an expense line or on an existing expense line to edit.
6. Continue with one of the following options.

Add or edit a floor or level

A floor is a level in a structure that contains spaces. It can be a floor of a building, the basement, levels in a parking lot, or outdoor areas.

Before you begin

Role required: admin

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Floor**.
2. Continue with one of the following options.

3. Fill in the fields on the form, as appropriate.

Level form

Field	Description
Name	Provide a descriptive name for this floor or level.
Building	Select the building that the floor is in.
Main level	Select this check box if this floor is the main level of the building.
Abbreviation	Enter an alphanumeric string to identify the level the floor is on. For example, enter G for garage or 3 for the third floor.
Assignable area	Displays only the area of the floor that is assignable to users.
Usable area	Enter only the area of the floor that is available for the creation of spaces.
Gross area	Enter the total area of the floor, including non-usable and non-assignable spaces.
Area unit	Select the unit used for defining the space size: square feet or square meters. **Note:** The **Area unit** assigned to all spaces must be consistent for the rollup calculations to work properly. See Space roll up calculations.

Field	Description
Current occupancy	Displays the number of users currently associated with the space. Calculation is generated using business rules on the Associated User [m2m_fm_user_to_space] table. **Note:** This field depends on the **Occupiable** option being selected.
Max occupancy	Displays max occupancy of the floor based on rollup calculations from the spaces below it. **Note:** This field depends on the **Occupiable** option being selected.
Percent occupied	Displays the percentage of total space occupied on this floor based on rollup calculations from the spaces below it. **Note:** This field depends on the **Occupiable** option being selected.
Utilization min	Enter a number to define the minimum level of utilization for the floor or level.
Utilization max	Enter a number to define the maximum level of utilization for the floor or level.

4. Click **Save** and the **Related Links** section displays.
   - Show Floor Plan: Click to display a floor plan of the selected floor.
   - View Facilities Schedule: Click to create a facilities schedule blackout and prevent work from being performed in a defined area for a scheduled time period.
5. The **Facility Spaces** section displays with a list of spaces that are part of the floor or level. Click **New** to add a facility space or click a facility space to edit.
6. Continue with one of the following options.

Add or edit a space

Spaces are assigned to floors or levels, and can be cubicles, conference rooms, restrooms, gymnasiums, elevators, parking spaces, and so on. Spaces are assigned users and assets, and have the most data defined.

Before you begin
Role required: admin

About this task

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Space**.
2. Continue with one of the following options.

3. Fill in the fields on the form, as appropriate.

Facility Space form

Field	Description
Display name	An auto-generated label based on the **Name**, **Building**, and **Floor** entries. For example, if the **Name** is 1002, the **Building** is Santa Clara Building 1, and the **Floor** is Floor 1, the **Display name** is Santa Clara Building 1 - Floor 1 – 1002.
Name	Enter a descriptive name for the space.
Building	Select the building for which you are defining the space.
Floor	Select the floor for which you are defining the space.
Area	Enter the value associated with the space size and the **Area unit** field: square feet or square meters.
Area unit	Select the unit used for defining the space size: square feet or square meters. **Note:** The **Area unit** assigned to all spaces must be consistent for the rollup calculations to work properly. See Space roll up calculations.
Cost center	Select the cost center for the space. Cost centers are defined in IT Cost Management and require activation of cost management. For more information, see Activate Cost Management. This field is a reference to [cmn_cost_center] table for charge backs reasons.
Department	Select the department for the space. Departments are defined in User Administration. This field is a reference to the [cmn_department] table.
Status	Select the status of the space (active, planned, maintenance, retired).
Availability	Select the availability of the space (vacant, partially occupied, at capacity, over capacity or reserved). **Note:** This field depends on the **Occupiable** option being selected.
Current occupancy	Displays the number of users currently associated with the space. Calculation is generated using business rules on the Associated User [m2m_fm_user_to_space] table. **Note:** This field depends on the **Occupiable** option being selected.
Max occupancy	Enter the maximum capacity of users for this space. **Note:** This field depends on the **Occupiable** option being selected.
Percent occupied	Displays the percentage of total space occupied.

Field	Description
	Note: This field depends on the **Occupiable** option being selected.
Occupiable	Select this check box if the space can be occupied. See Space roll up calculations.

4. Use the **Associated Users** and **Assets** related lists to view or add users and assets to the space.
5. Use the **Associated Departments** related list to view or add which departments are associated with this space.
6. Continue with one of the following options.

Add or edit a zone

Zones are a logical collection of spaces that can be shared across campuses, floors, or buildings. Examples of zones are: Chiller 4 Zone, Guest Wi-Fi Zone, AC 1 Zone, Power Circuit 3 Zone, and so on.

Before you begin
Role required: admin

About this task
There are no restrictions on zones. They can cross campuses and buildings. In addition, spaces can belong to one or more zones.

Procedure
1. Navigate to **All** > **Facilities** > **Space Management** > **Zone**.
2. Continue with one of the following options.

3. Fill in the fields on the form, as appropriate.

Facilities zone form

Field	Description
Name	Provide a descriptive name for this zone.
Short description	Provide a more descriptive name for this zone.

4. Continue with one of the following options.

Delete a campus

Delete all buildings assigned to a campus, before deleting the campus itself.

Before you begin
Role required: admin

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Campus**.
2. Click the name of the campus you want to delete.
3. Click **Delete**.

Note:
If the campus has any buildings defined for it, a warning box appears identifying those buildings. Delete the buildings before deleting the campus.

Delete a building

Before deleting a building, delete any floors or levels defined for it.

Before you begin

You must delete all the floors in a building before deleting the building itself.
Role required: admin

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Building**.
2. Click the name of the building you want to delete.
3. Click **Delete**.
   If the building has any floors defined for it, a warning box opens and identifies the floors. Delete the floors before deleting the building.

Delete a floor or level

Before you can delete a floor, you must first delete any spaces defined for it.

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Floor**.
2. Click the name of the floor you want to delete.
3. Click **Delete**.
   If the building has any assets associated with it, a warning box opens. If you click **Delete**, the associated asset is deleted.

Delete a space

Spaces can be deleted from any floor or from another space as long as the space you want to remove does not have other spaces associated with it. For example, if you want to delete a space that contains several offices, those spaces must be deleted before the parent space can be deleted.

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Space**.
2. Click the name of the space you want to delete.
3. Click **Delete**.
   If the space has any assets associated with it, or if the space is associated with another space, a warning box opens. If you click **Delete**, the associated asset or space is deleted.

Delete a zone

When deleting a zone, any associated assets or spaces is also deleted.

Before you begin
Role required: admin

Procedure

1. Navigate to **All** > **Facilities** > **Space Management** > **Zone**.
2. Click the name of the zone you want to delete.
3. Click **Delete**.

> **Note:**
> If the space has any assets associated with it, or if the space is associated with another space, a warning box opens. If you click **Delete**, the associated asset or space is deleted.

Run transform to update data

Running a transform exports information from your records into an .xls file. That data can be imported into the ServiceNow space management application.

Before you begin
Role required: admin

About this task
An example transform map is included with the demo data. Load the demo data on a pre-production instance, go to campuses, and select the **Westfield Valley Fair** campus. Open the Westfield**Valley Fair V262-259** map set. Use the **westfield_transform_example.xls** file as an example. Process the campus, then run the transform.

Procedure

1. Navigate to **All** > **System Import Sets** > **Run Transform**.
2. Click **Create and load an import set first**.
3. Fill in the fields on the form, as appropriate.

Create or add to an existing import set table

Option	Description
Import set table	Selections are create table or existing table.
Label	Enter a label for the new table. **Note:** This field depends on the **Create table** option being selected.
Name	The name is automatically generated from the **Label** you enter. **Note:** This field depends on the **Create table** option being selected.
Import set table	All saved import set tables are listed in a list. **Note:** This field depends on the **Existing table** option being selected.
Source of the import	Selections are file or data source.

Option	Description
File	Browse to the location of the file. **Note:** This field depends on the **File** option being selected.
Sheet number	Identifies the sheet number used for the transform. **Note:** This field depends on the **File** option being selected.
Header row	Identifies the row number used as the header row in the transform file. **Note:** This field depends on the **File** option being selected.
Data source	All data sources are listed in a list.

4. Click **Submit**.
5. Click **Run transform**.
6. Click **Transform**.
   All the spaces are populated in space management from the space details in the transform map.
7. Navigate to **Space Management** > **Spaces**
8. Review all space details to be certain all extra details were imported.

Transform map

A transform map is an .xls file that allows you to add spaces or details about spaces from other sources into the space management application.

Transform maps must be run separately for floors and spaces. Unique spaces are identified based on a combination of the building name, floor, and space name and must be included in the transform map.

For your convenience, ServiceNow provides two transform maps for your use:

- imp_facilities_data
- imp_facilities_level_data

For instructions, see Run transform to update data.

Facilities move management

Employees and managers can request single user moves. Members of the facilities staff can use the enterprise move tool to plan and execute large move scenarios involving multiple people, assets/CIs, and departments.

The Facilities Move Management application benefits your organization in the following ways:

- Streamlines the move process from request through execution
- Reduces costs by avoiding unnecessary moves
- Simplifies move planning through increased visibility of space resources

- Provides reporting and insight into in-progress moves
- Improves service delivery through better communication and coordination throughout a move process

Note:
This feature is no longer available for new customers.

Facilities move requests

Both employees and managers can request a move, which initiates the workflow of tasks to complete that move. Any user can submit a move request through the Facilities catalog. Users with the Facilities staff role can also create and update facilities requests using the move request form directly.

Facilities move management works in the following manner:

1. A ServiceNow administrator activates and configures the Facilities Move Management application according to your organization's needs and requirements.
2. A facilities administrator creates your organization's campus and configures the spaces and assets contained within.
3. Users submit facilities move requests, including the name of user to be moved, the move from location, and the move to location.
4. The move workflow creates tasks and updates the state of the move request.
5. Facilities staff members perform the tasks necessary to fulfill the move request.
6. The end of workflow script runs to update the user location and the location of all the asserts that were requested to be moved.

Create a move request through the facilities catalog

Users can submit move requests by selecting from the categories of the Facilities catalog.

Before you begin
Role required: none

Procedure

1. Navigate to **All** > **Self-Service** > **Facilities Catalog**.
2. Select the **Space Management** category.
3. Select the subcategory for your move request.
4. Fill in the fields on the form, as appropriate.

Note:
Some request forms do not contain every field described here. For more information, see Forms.

Facilities catalog move request form

Field	Description
Requested by	The name of the person submitting this request.
User to be moved	Select a name if you are opening this request on behalf of another user.
From location	The current location of the user.

Field	Description
To location	The new location for the user.
Requested move date	Select a date for the move request to be performed.
Additional comments	Enter additional information about the move that you feel is important for the facilities staff to know.
Options	
Security badge update	Select this check box if the user being moved requires changes in location access.
Boxes	Select this check box if the user requires that boxes be delivered before their move.
Move assets	Select this check box if the user being moved requires assets to be moved along with them.
Assets to be moved	Provides filtering and condition statements to help narrow your search for assets. Move **assets** to the Selected assets list. **Note:** This field depends on the **Move assets** check box being selected.

5. Click **Submit**.

Create a move request with the move request form

Facilities staff members can create move requests using the move request form.

Before you begin
Role required: facilities_read

About this task
Associating a CI to a move request helps your facilities team understand which services or assets are affected in a move. You can also use this form to include extra comments and work notes for the move request.

Procedure

1. Navigate to **All** > **Facilities Move** > **Requests** > **Create New**.
2. Fill in the fields on the form, as appropriate.

Move request form fields

Field	Description
Number	An auto-generated number that identifies the move request record.
Priority	The priority that describes the importance of this request. By default, all requests are set to **4-Low**.
Move date	Select a date for the move request to be performed.
State	The state that describes what work stage this request is in. By default, all requests are set to **Open**.
Opened	Auto-filled with the date and time the request was opened.

Field	Description
Assignment group	Select the group from which an agent is assigned to the request. You can select only assignment groups associated with the service management application you are using. **Note:** If you selected the **Use the dispatch queue** option on the Facilities Management Configuration screen, only users with the Dispatcher role can edit this field. If you did not select the **Use the dispatch queue** option, all users except those users with the Basic and Initiator roles can edit this field.
Requested by	The name of the requester.
Assigned to	Select the agent to assign the request to. If you already selected an assignment group, you can only select agents who belong to that group. If email notifications are enabled on your instance, a built-in email notification automatically sends an email to this user when you save the request record. **Note:** ○ If you selected the **Use the dispatch queue** option on the Facilities Management Configuration screen, only users with the Dispatcher and Agent roles can edit this field. If you did not select the **Use the dispatch queue** option, all users except those users with the Basic and Initiator roles can edit this field. ○ If you selected an assignment group and want to assign the work to a new user, click the reference lookup icon next to **Assigned to**, click **New**, and create a user. Be aware, however, that you must navigate to **User Administration > Groups** and add the user to the assignment group before the request can be assigned.
Template	[Required] The workflow template to be used for the fulfillment of this request.
Short description	[Required] A brief summary of the request. Optionally, you can click the search knowledge icon to view articles in the knowledge base relating to this product model, plan, or CI. Doing so could provide a solution related to the reason you are submitting this request.
Move Details	
User to be moved	Select a name if you are opening this request on behalf of another user.
From location	The location from which the user is moved.
To location	The location to which the user is moved.
Requested move date	Select a date for the move request to be performed.
Boxes	Select this check box if the user requires that boxes be delivered before their move.
Security badge update	Select this check box if the user being moved requires changes in location access.

Field	Description
Move assets	Select this check box if the user being moved requires assets to be moved along with them.
Work Notes	
Description	A detailed description of the request. The description is always visible to the submitter. Therefore, if you add or modify the description for a request that another user submitted, the user is able to see the changes.
Work notes	Extra notes that you want to share between users who can access the request form. A user who submits the request through the service catalog cannot see the work notes.

Note:
To specify an **Assignment group**, and assign the work to a user not in your user table, click the magnifying glass icon in the **Assigned to** field. Then click **New**, and create the user record. Be aware, however, that the new user is not recognized.

3. Continue with one of the following options.

Facilities move request templates

The facilities staff adds templates to the facilities catalog, so users can select from subcategories for their request type.

Enterprise move

Facility teams use Enterprise Move to plan and execute move scenarios in support of large or complex employee move requests.

The Facilities enterprise move process is as follows:

1. A facilities administrator uses the Move Planning Tool to create scenarios of potential moves.
   - A facilities administrator assigns delegators and move groups to each scenario.
   - A facilities administrator reviews the scenarios and chooses the one to execute.
2. Delegators access their assigned move scenarios and assign users to seats.
3. Facilities staff members execute and facilitate the move through the Enterprise Move workflow.
   - State changes are handled by UI actions and a workflow, which contains a required approval from facilities_admin or move_admin.

Note:
The Service management workflow can be edited to meet customer-specific processes.

Move planning tool

The Move Planning tool displays occupancy totals by campus and floor. Facilities and move administrators can add or remove users to and from scenarios while planning a move. Groups of people are selected and moved by department (department on sys_user record) or by direct manager (manager on sys_user record).

The move planning tool also contains three tabs to help in enterprise move planning.

Move planning tool tabs

Tab	Description
Scenarios	• Create or change scenarios • Change the campus you are viewing • See current seating capacity
Planning	• Choose how you want to select groups to move: by department or manager • Select a group and color that group on the map
Display	• Select how segments are displayed • Hide buildings and floors

Move Planning Tool

Enterprise move scenarios

Move scenarios are used by the Facilities team to see the implications of a move in relation to other moves. Multiple scenarios can be created.

Predictive availability considers planned seating changes for the selected scenario (on or off current level).

Plan a move scenario

Facilities administrators create move scenarios when planning and executing large-scale moves. When people are added to the scenario, move_detail records are created. These records contain all the information about the potential move for a specific person, such as the reference to the sys_user, destination floor, and destination building.

Before you begin
Role required: move_agent or facilities_staff

Procedure
1. Navigate to **All** > **Enterprise Move** > **Move Planning Tool**.
2. Click **Create New Scenario**.
3. Fill in the fields on the form, as appropriate.

Enterprise Move Scenario

Field	Description
Name	Provide a name for the scenario.
Notes	Enter additional information about the move that you feel is important for the facilities staff to know.

4. Click **Submit**.
5. On the right-side pane, on the Scenarios tab, select the campus this move applies to. Occupancy totals for the campus you selected are displayed per floor in bar charts, showing how many seats are assigned to a department or manager. The total number of open seats are shown also.
6. Click the Planning tab, and select the **User Manager** or **User Department** view.

Note:
User Department refers to the department of the user (sys_user) that is sitting there. It is not showing the department that is assigned the space.

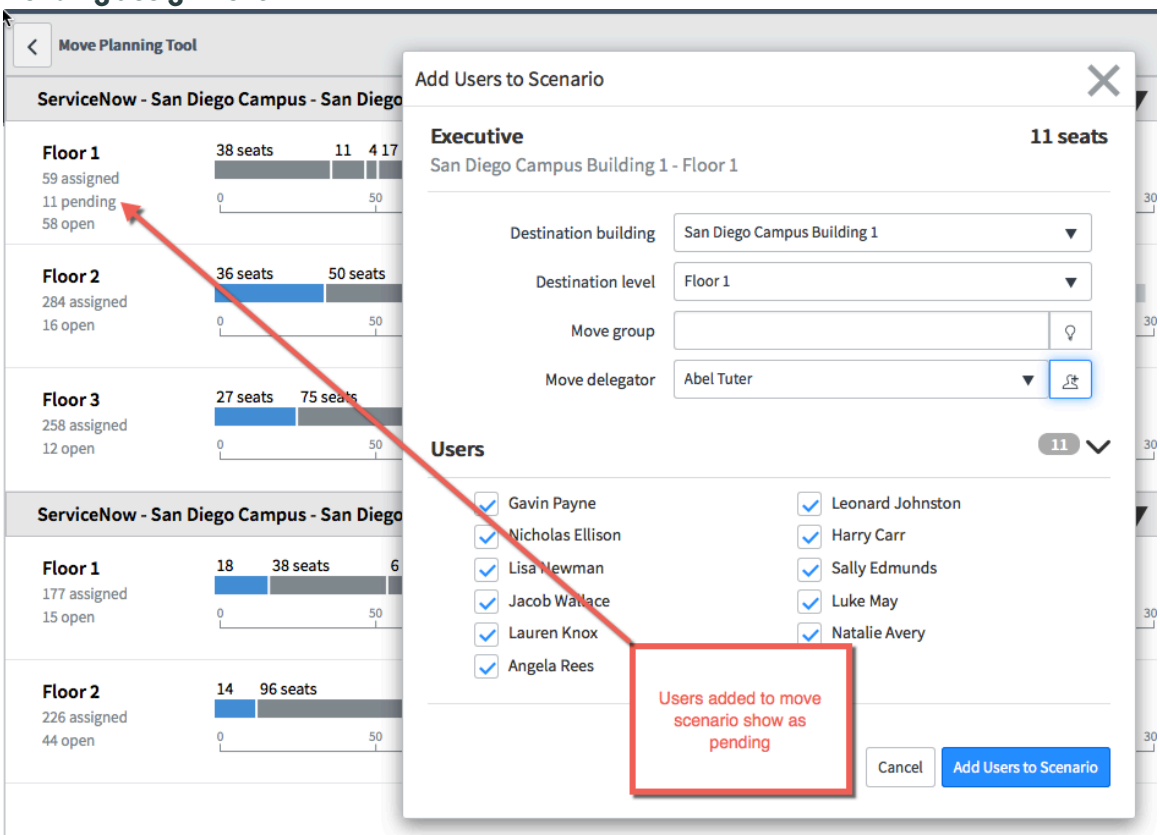
7. Select the manager or department on the floor bar chart.
8. Click a highlighted segment on one of the floors.
9. Fill in the fields on the form, as appropriate.

Add Users to Scenario form

Field	Description
Destination building	The building you are moving employees to. **Note:** If no building or floor is specified, the user is moved to the Lounge.
Destination level	The floor you are moving employees to.
Move group	Enter a name for the group you are planning to move. **Note:** Use a unique name to identify a group. After clicking **Submit**, the group name is saved and can be used again.
Move delegator	The person responsible for assigning users to open spaces in a scenario. Refer to Activate a delegator.

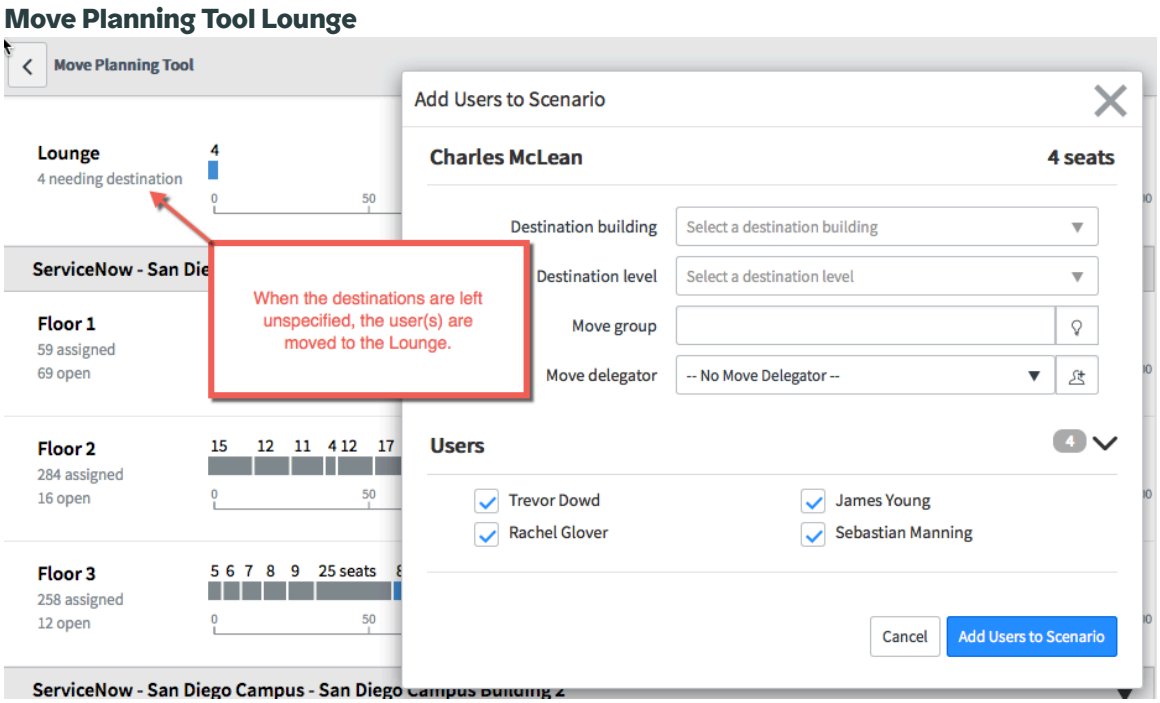
10. To add or delete users in this scenario, click the arrow to expand the **Users** tab.
11. Select users and click **Add Users to Scenario**.
    Users added to the scenario are shown in the pending assignments in the floor details.

Pending assignment



Lounge

When a facilities administrator sets up a move scenario without specifying the destination building or floor, the users are moved to the lounge.



Activate a delegator

Delegators assign users to seats in a scenario. Activating the delegator sends an email notification request that they assign seats using Move Details.

Before you begin

Role required: facilities_staff or move_basic

Procedure

1. Navigate to **All** > **Enterprise Move** > **Enterprise Move Scenarios**.
2. Select the move scenario.
3. Click the **Enterprise Move Delegators** tab to review the list of delegators.
4. Add or delete delegators, as necessary.
5. Click **Activate Delegators**.

Move delegators

Facilities administrators assign move delegators to assign users to locations.

Move delegators are usually managers or someone assigned by the manager, to determine which locations users are moving into. Delegators assign locations on the floor plan, which are added to the move scenario and carried over to the move request and subsequent move tasks.

Assign users to seats

Delegators receive an email notification requesting that they assign seats using Move Details.

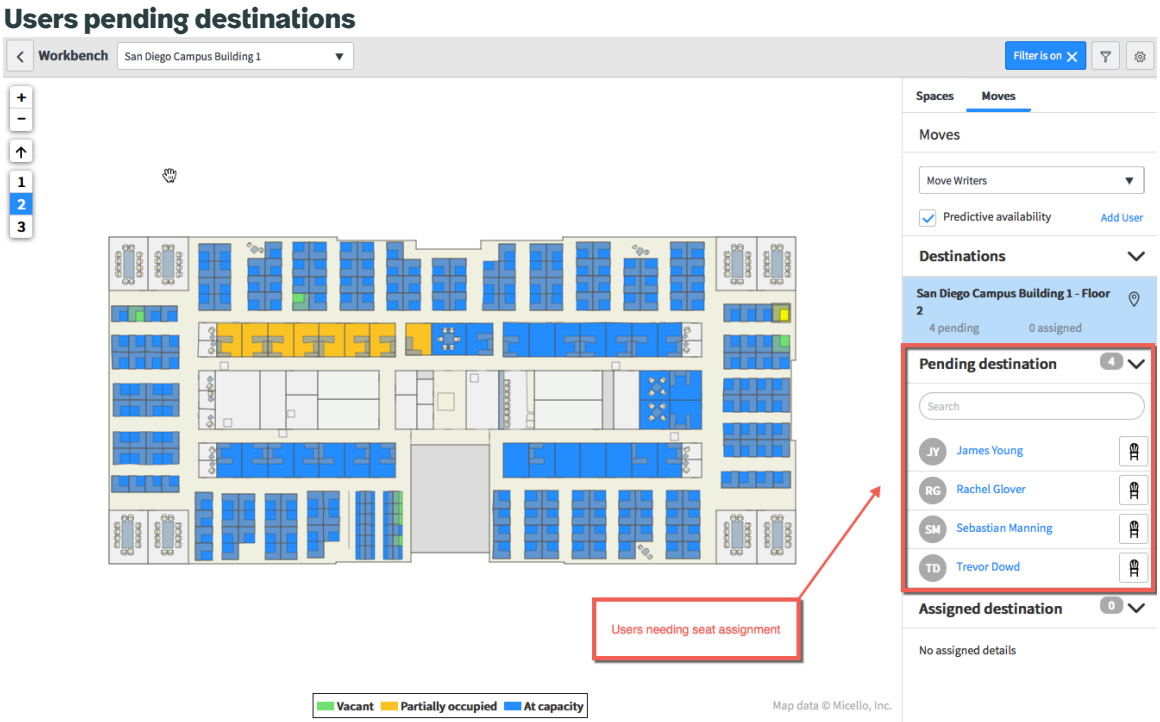
Before you begin

Role required: admin

Procedure

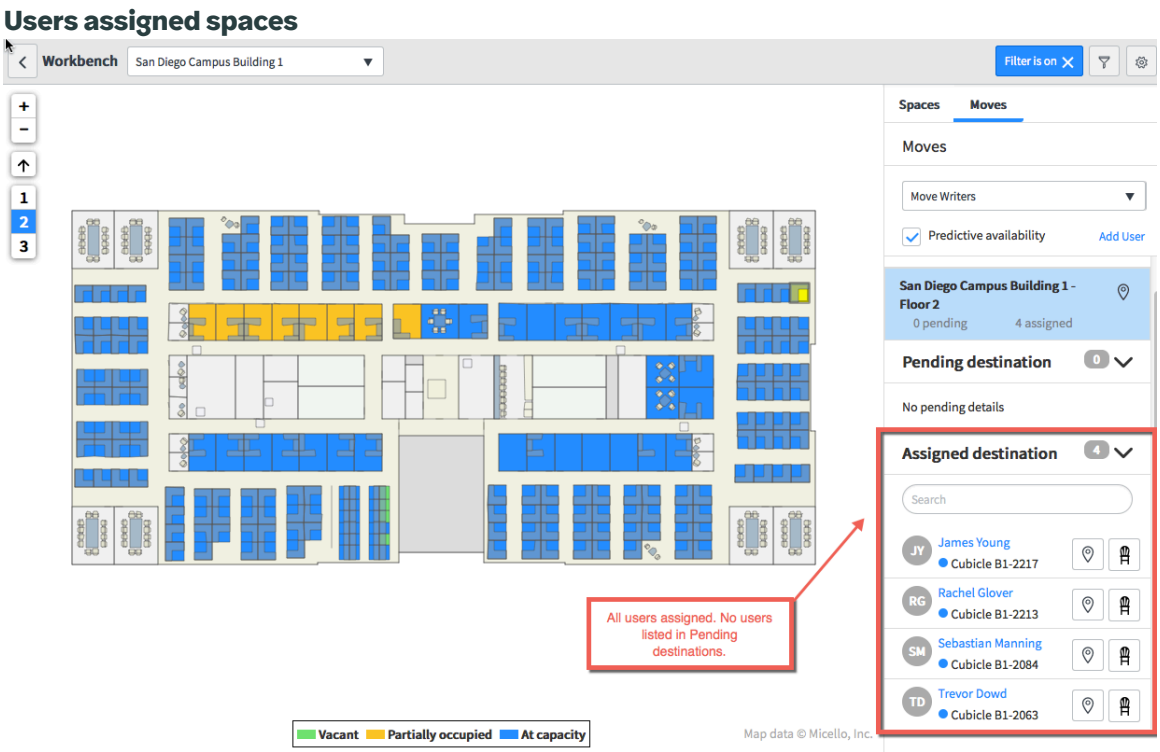
1. Navigate to **All** > **Self-Service** > **Floor Plan**.
2. On the right-side pane, on the Moves tab, select the scenario.

3. Click the destination link for which there are pending assignments.
   The users with pending destinations are listed.



4. Click the icon beside a name and click a destination space on the map.
   The user and location are added to the Assigned destination link.

5. Continue assigning spaces in this manner.
   You are finished assigning spaces when all users in the Pending destination list have been moved into the Assigned destination list.

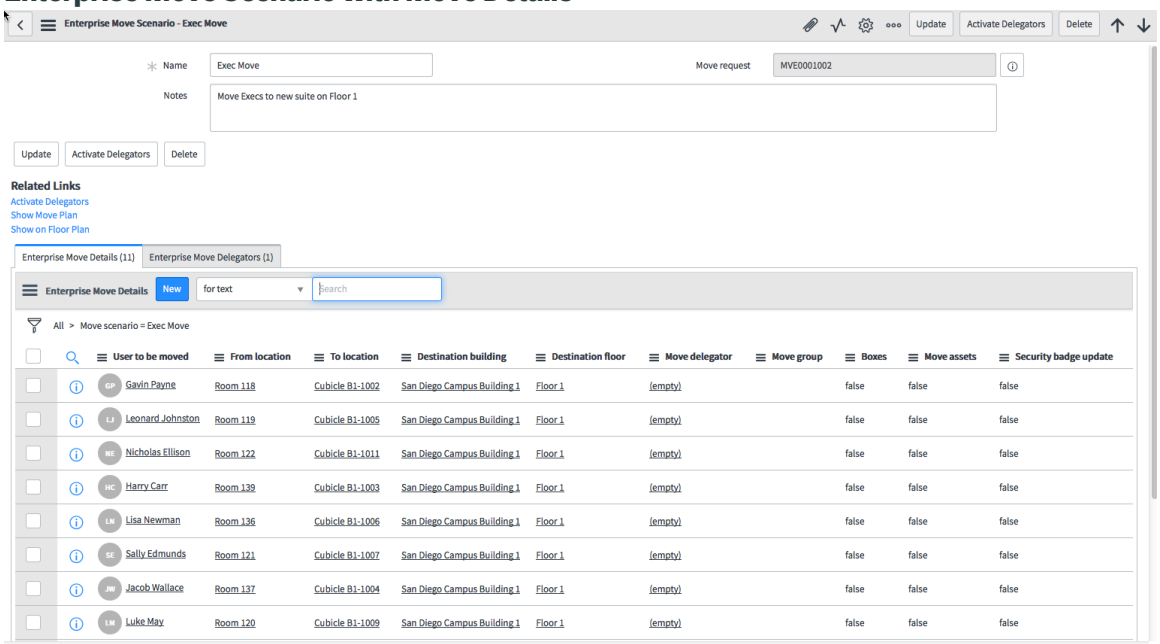


Enterprise move details

Enterprise move details are created when people are added to the scenario. Move details contain information about the move for a specific person, such the destination floor, destination building, need for moving boxes, or a security badge update.

Duplicate details are not allowed (same user, scenario, and from_location). The same move detail can be in multiple scenarios. Updates can be made to move details from the list or form view.

Enterprise Move Scenario with Move Details



Enterprise move requests

Enterprise move requests are managed by a workflow, which contains required approvals from facilities_admin or move_admin. State changes are handled by UI actions.

Enterprise move tasks

Before a move can be executed, destination locations for all users must be complete. Move tasks are based on check boxes on the request form.

- One task per type:
  - Move users and assets
  - Update security badge
- Groups or waves of users can be moved at a time. Useful if the move will be executed over a period of time with different groups moving at different times.
- One per user moving. Useful for tracking actual users moves in detail.
- When the user move task is closed, the location of the users and their assets are updated.

Interactive facility maps

The interactive facility maps, including the Workbench and the Floor Plan, provide a campus-level hierarchy, improving your facilities request tracking and space management. Decision makers in your organization can track, manage, and analyze spaces in support of organizational needs and users can find other users and assets.

Note:
This feature is no longer available for new customers.

The interactive facility maps offer the following benefits:

- The workbench provides the exact location of a facilities request on a campus map, so the facilities team knows exactly where users encountered the issue.
- Maps are available to anyone in the organization, so users can search for people or spaces on the map.
- Configuration items (CIs) on each request identifies the impacted items in your infrastructure.
- You can see affected spaces with zone creation by particular actions, like construction or maintenance of equipment that services those zones.
- Define spaces with capacity metrics (gross space, usable space, assignable space, occupiable space) for reporting and financials.

Map filters

Users can filter the map to determine how various spaces are colored.

There are two types of map filters:

- Simple filter: Allows you to quickly highlight spaces based on conditions.
- Saved filter: Allows advanced filtering when you want to highlight spaces, based on conditions not supported by a simple filter.

Simple filters

Simple filters are available for the **Workbench** and the floor plan.

Simple filters allow you to quickly highlight spaces based on conditions.

From **Workbench**, click the Filter icon .

Simple filter selections

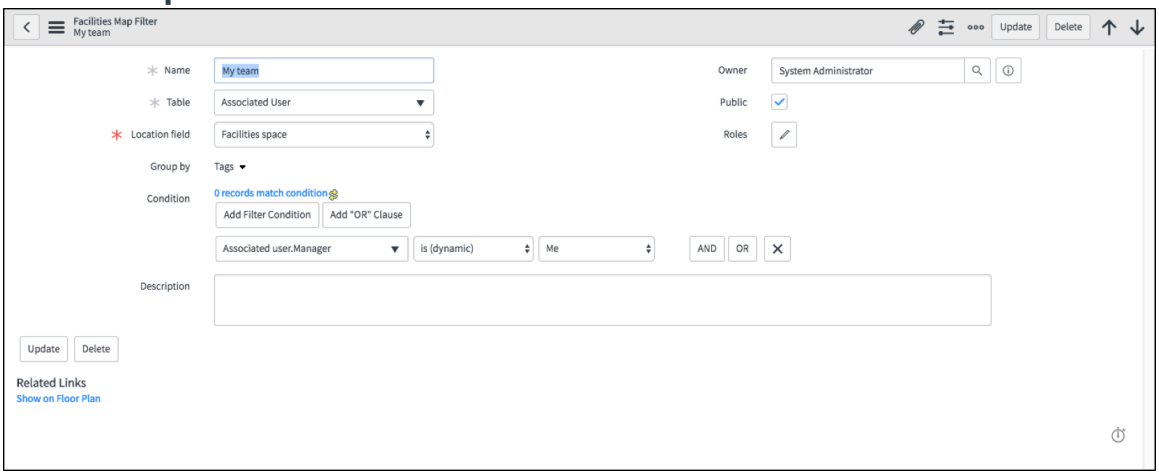
Category	Options
Show Spaces	• Deselect All • Lists spaces queried from the tables that extend or include [fm_spaces]
Availability	
Show color by	• None • Department • Availability
Departments	Lists departments queried from the tables that extend or include [fm_m2m_department_to_space]
Zones	Lists zones queried from the tables that extend or include [fm_m2m_space_to_zone]

Saved filters

A saved filter allows advanced filtering when you want to highlight spaces, based on conditions not supported by a simple filter.

You can set a filter showing all the printers on a map and share that filter with other users. Private filters can be saved without sharing those filters with others.

Facilities map filter



Create a map filter in Facilities Service Management

Create a custom filter to highlight spaces on a map for fast and easy recognition. You can create custom filters for any mappable space (fm_space), asset, associated user, CI, or task with a location defined.

Before you begin

Role required: admin

Procedure

1. Navigate to **All** > **Space Management** > **Map Configuration** > **Filters**.
2. Click **New** or an existing map filter.
3. Complete or edit the form.
   Map Filter form

Field	Description
Name	Unique name for the map filter.
Table	Table that the map filter is accessing information from.
Location field	Fields from the table selected when the table is not associated with a location. **Note:** The table selected determines which fields show. You can dot-walk to any field from the selected table.
Group by	Field that the map filter groups by. You can color each matching space based on this group. For example, you can group by availability status from the Facility Space [fm_space] table.

Field	Description
	Note: The table selected determines which fields show. You can dot-walk to any field from the selected table.
Condition	Conditions that define the map filter. The table selected determines what conditions are available.
Public	Filter is available to others.
Roles	Roles required to view this filter on the workbench.
Description	Description of the map filter.

4. Click **Submit** or **Update**.

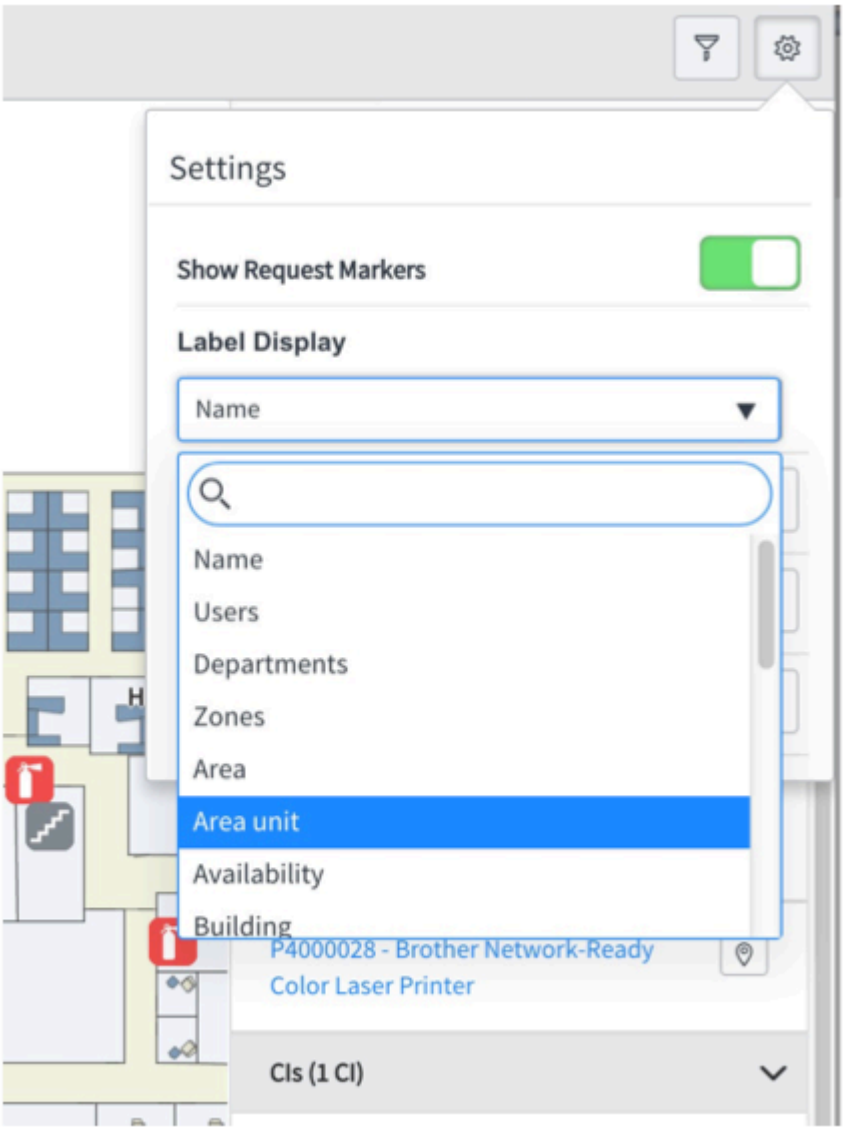
What to do next

After you create a filter, click the **Show on Floor Plan** related link to view the map filter on a map.

Enhanced labels

Enhanced labels allow the end user to show any information on any mappable space (fm_space), as the space label. Users choose to display the occupant name, the department name, or other custom field as the default label.

Enhanced Labels



The label selector on the interactive map gives the user all fields on fm_space including custom, user-defined fields, allowing any piece of information to be a label. In addition to fm_space two special pieces of information are shown:

- Sys_users assigned to space based on the fm_m2m_user_to_space table
- Departments assigned to the space based on the fm_m2m_department_to_space table

Map settings

Map settings allow the facilities staff or users to choose the appearance of their floor plan.

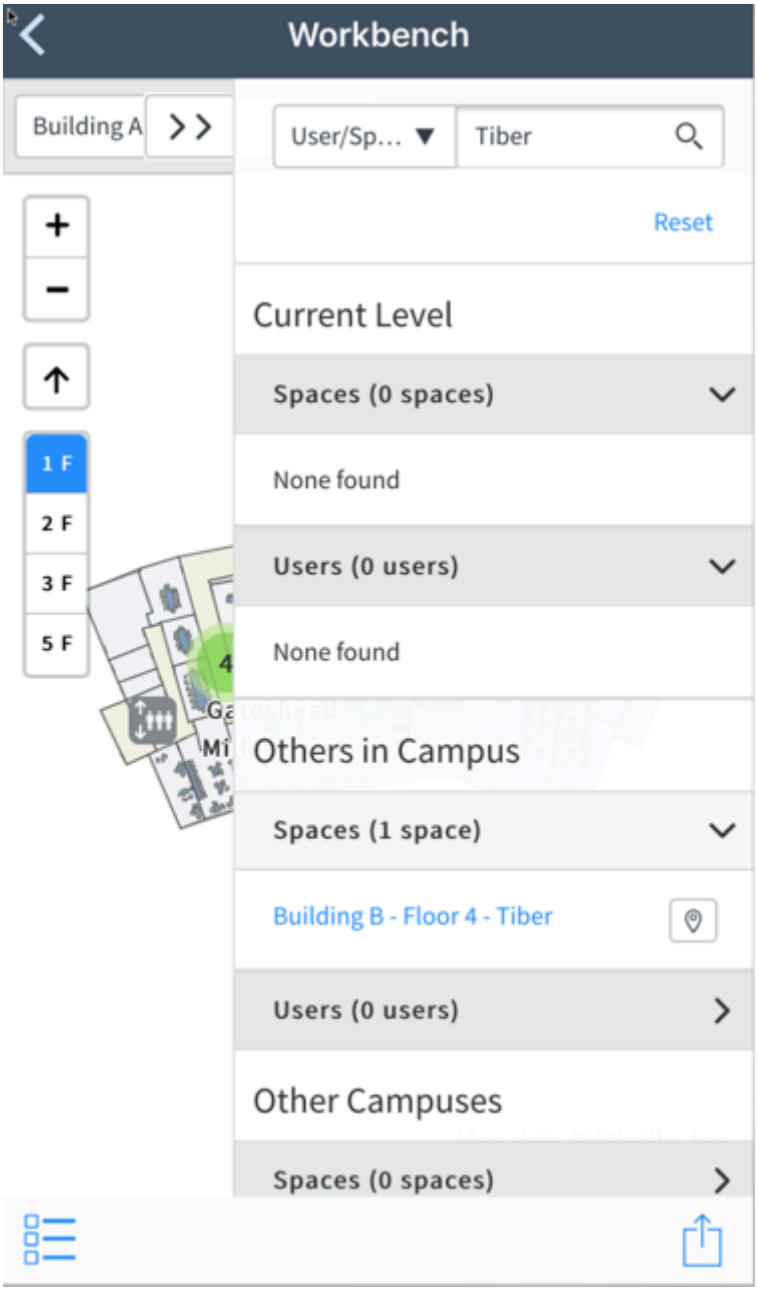
Find a space or user on a mobile interface

Quickly find a conference room, office, cubicle, or another employee in your organization on a mobile interface.

Before you begin
Role required: none

Procedure

1. Tap the << icon to expand the side tab.
2. In the **User/Space search** field on the Spaces tab, enter the search criteria and tap **return**. Matching users and spaces are listed by current level, campus, and other campuses.



3. Perform one of the following options.

Find a space or user

All users in your organization, regardless of their role, can search for other users and spaces. The results are ordered by current level or floor, current campus, and other campuses.

Before you begin

Role required: none

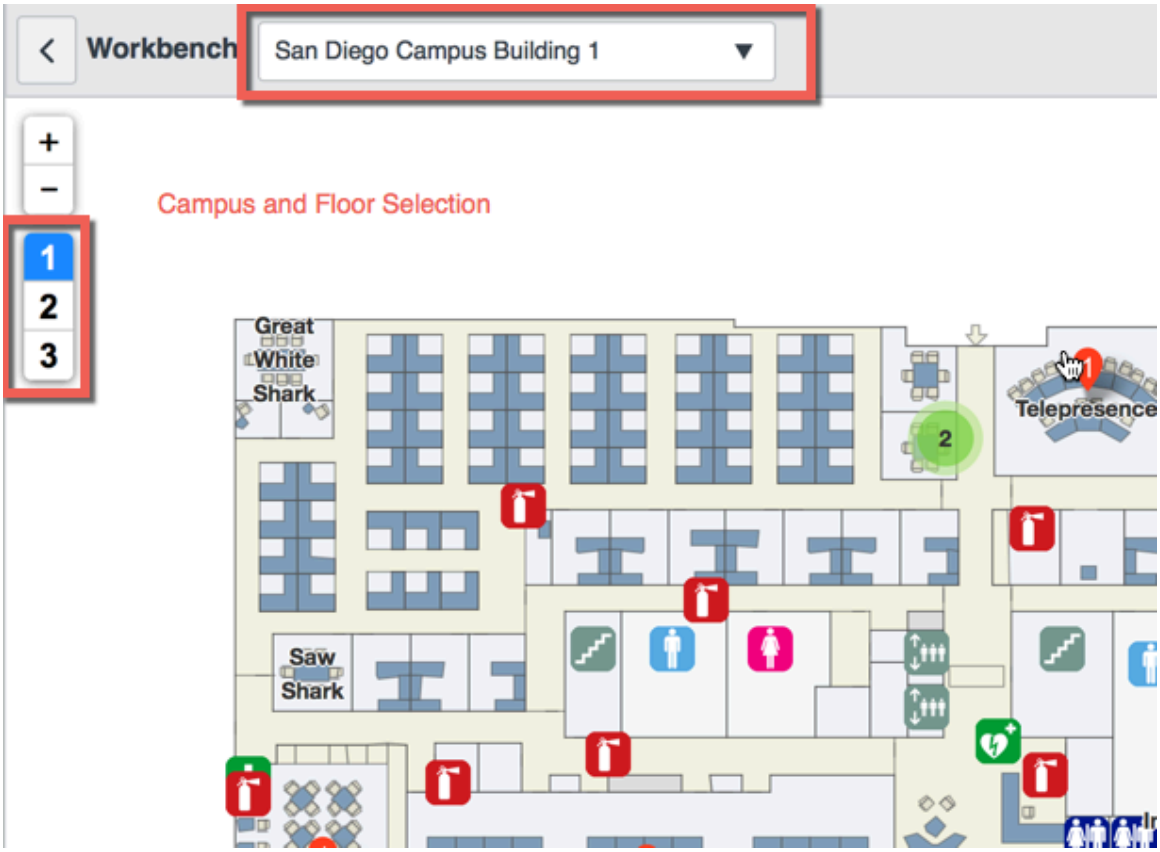
About this task

Procedure

1. Perform one of the following options.

2. Select **User/Space** in the search criteria box.
3. To help narrow your search results, you can select the campus, building, and floor number for your search.

> **Note:**
> The facilities administrator configures the number of search results returned. See Facilities visualization workbench configuration.



4. On the Spaces tab, enter the user's name or space name in the search field.
5. Press the Enter key to submit your search criteria.
   Search results are returned in the following order:
   - Current Level
   - Other in Campus
   - Other Campuses
6. Perform one of the following options.

Find an asset or CI

All users in your organization, regardless of their role, can search for assets and CIs. The results are ordered by current level or floor, current campus, and other campuses.

Before you begin
Role required: none

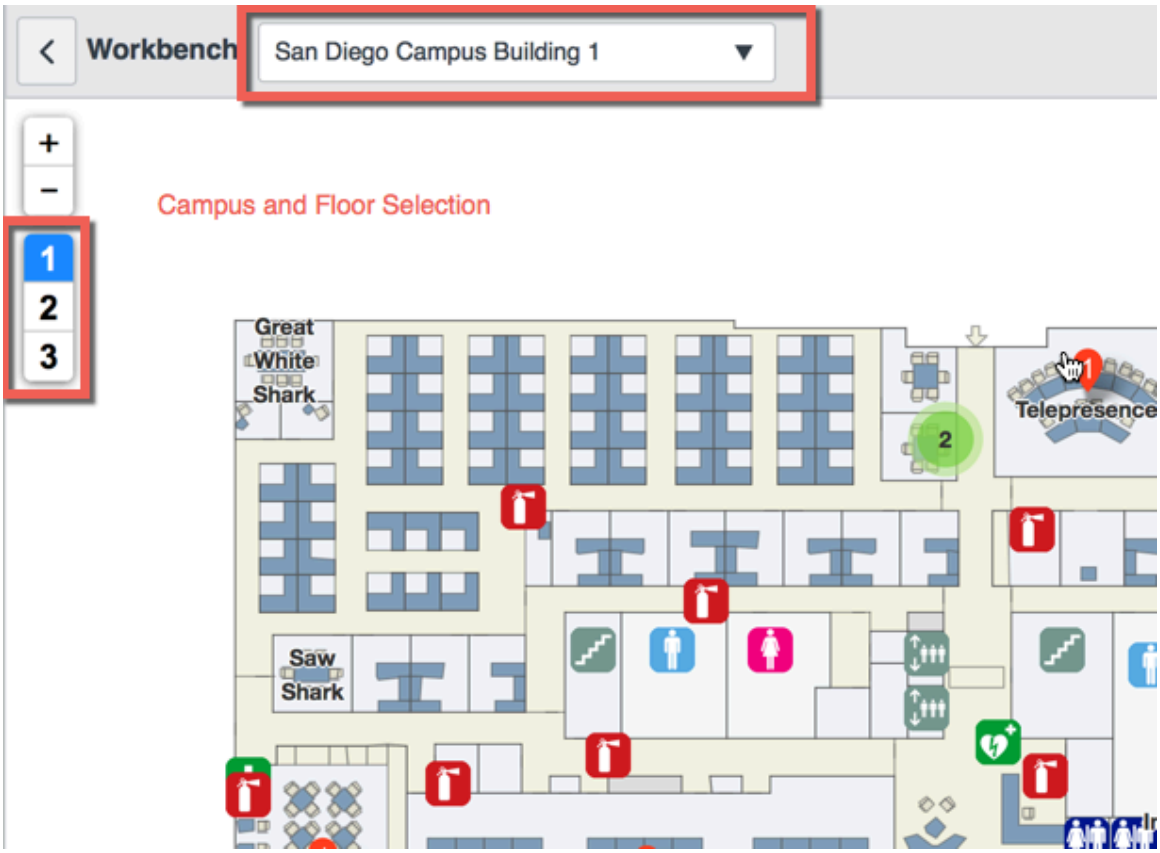
About this task

Procedure

1. Perform one of the following options.

2. Select **Asset/CI** in the search criteria box.
3. To help narrow your search results, you can select the campus, building, and floor number for your search.

Note:
The facilities administrator configures the number of search results returned. See Facilities visualization workbench configuration.



4. On the Spaces tab, enter the asset or CI in the search field.
5. Press the Enter key to submit your search criteria.
   Search results are returned in the following order:
   - Current Level
   - Other in Campus
   - Other Campuses
6. Perform one of the following options.

Show any task on a map

Custom tables that are extended from task can be created, shown, and managed on the interactive map. The location field on the task, must be a mappable space (fm_space). There are some location fields on task that may have a reference qualifier that does not allow fm_space be used.

Before you begin

Role required: facilities_admin to edit, create, delete records

- Check that the location of the task is mappable (fm_space).
- Check that the reference qualifier on the location field allows fm_space.

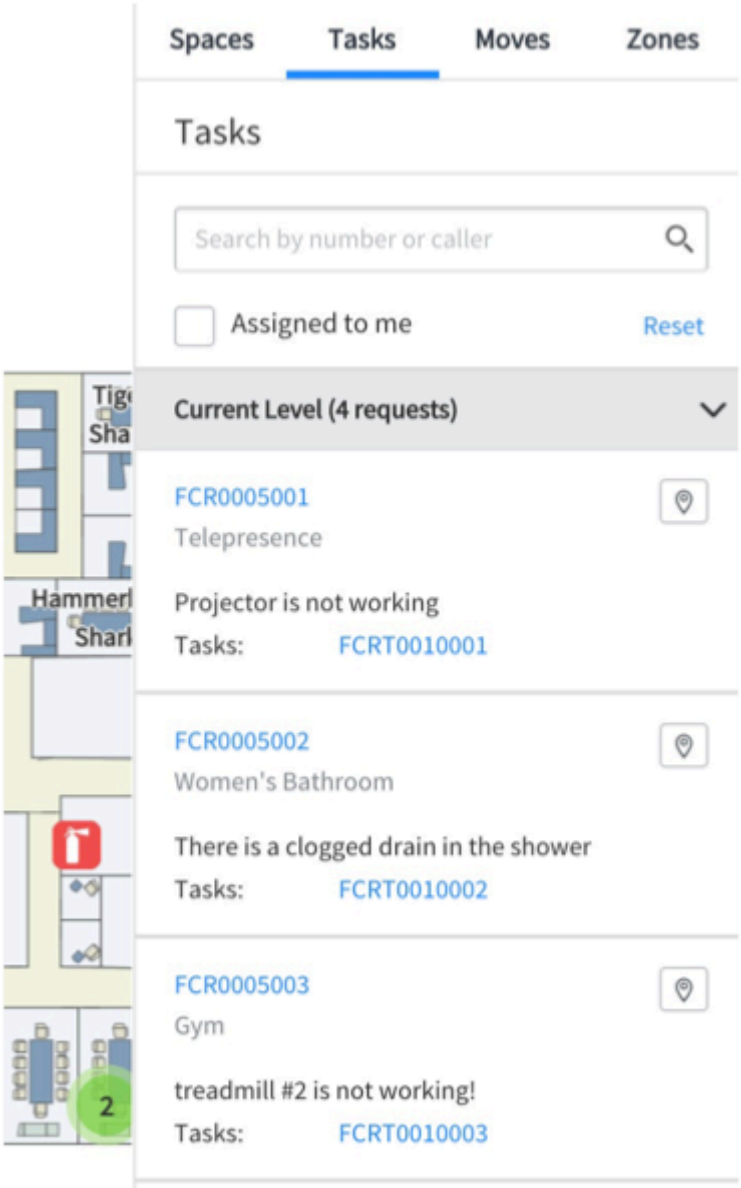
Procedure

1. Navigate to **All** > **Facilities** > **Workbench Configuration** > **Map Tasks**
2. Click **New**.
   All the items that extend the task are available.
3. Do one of the following actions:

Option	Description
To show the task on the map	Set **Show task** to true
To hide the task from the map	Set **Show task** to false

These tasks display on the Task tab on the map.

Tasks Tab



Facilities Floor Plan

Users use the floor plan find other users, spaces, and assets. Users can also create facilities requests from any space on the floor plan.

Use the floor plan as follows:

1. A ServiceNow administrator activates and configures the Facilities Floor Plan according to your organization's needs and requirements.
2. A facilities administrator creates your organization's campus and configures the spaces and assets contained within.
3. Users submit facilities and move requests and those request locations are tagged on the floor plan.
4. Users can set filters to see particular spaces, users, and assets.

5. From the workbench, administrators qualify facilities requests. This is the process of checking that the information in the request is complete, so facilities tasks can be assigned.
6. Administrators organize requests into tasks that must be done before the request is complete, and dispatch those tasks.
7. Facilities staff members perform the tasks necessary to fulfill the request.
8. The assigned facilities staff members close their tasks, allowing the request to be closed.

Create a facility request from the floor plan

All users in your organization can create any facility requests that your facilities admin [facilities_admin] has enabled on the floor plan view.

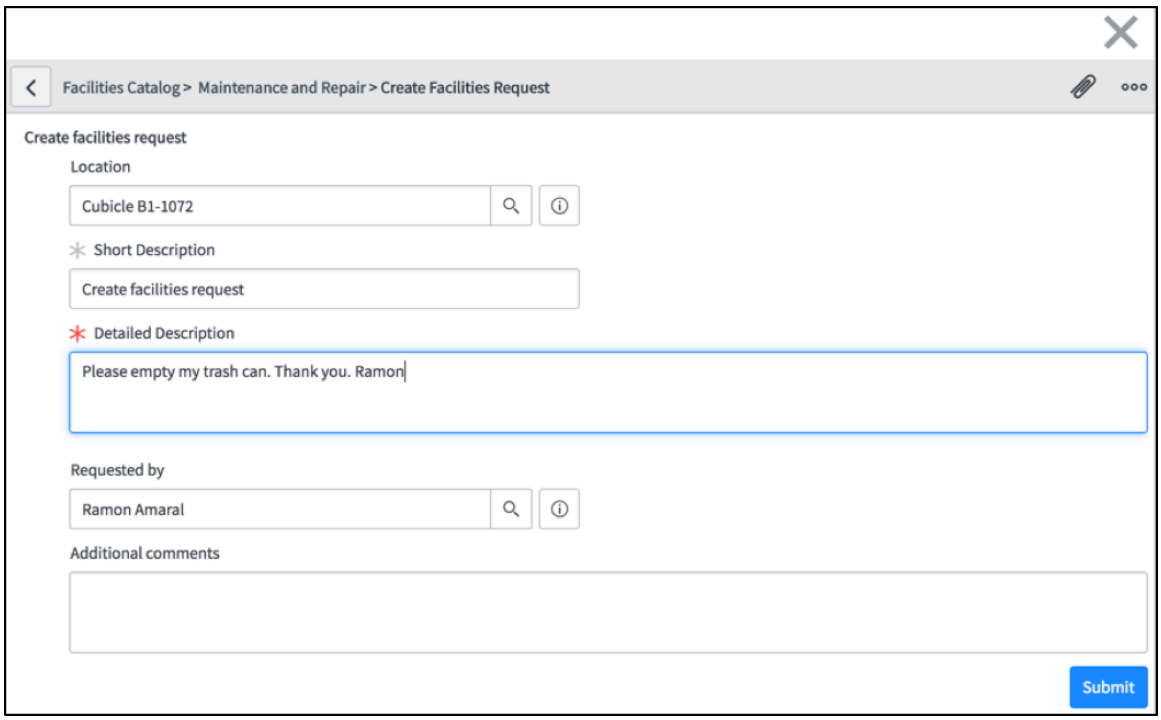
Before you begin
Role required: none

Procedure

1. Perform one of the following options.

2. On the Spaces tab, under the room information details and **Related Links** section, click **Create Facilities Request**.

Note:
You can also right-click the space link and select **Create Facilities Request**.



Facilities request form

Field	Description
Location	The specific location from the floor plan.
Short Description	Enter a short description summarizing the facilities request. You can overwrite the default description.

Field	Description
Detailed Description	Enter a detailed description of the facilities request.
Requested buy	The user name of the person making the request displays.
Additional comments	Add additional comments if necessary.

3. Click **Submit** and the **Floor Plan** form displays.

Facilities Workbench

Members of the facilities staff use the workbench to interact dynamically with the floor plan. Users have access to the floor plan (but not the workbench), from which they can find other users and spaces.

Use the workbench as follows:

1. A ServiceNow administrator activates and configures the Facilities Visualization Workbench application according to your needs and requirements.
2. A facilities administrator creates your campus and configures the spaces and assets contained within.
3. Users submit facilities and move requests and those request locations are tagged on the workbench.
4. From the workbench, administrators qualify facilities requests. This process checks that the information in the request is complete, so facilities tasks can be assigned.
5. Administrators organize requests into tasks that must be done before the request is complete, and dispatch those tasks.
6. Facilities staff members perform the tasks necessary to fulfill the request.
7. The assigned facilities staff members close their tasks, allowing the request to be closed.

> **Note:**
> Facilities Workbench is available on a mobile device, but with limited capabilities.

Find a move request

Facilities and move staff can locate and manage move requests from the Moves tab within the workbench.

Before you begin

Role required: move_basic

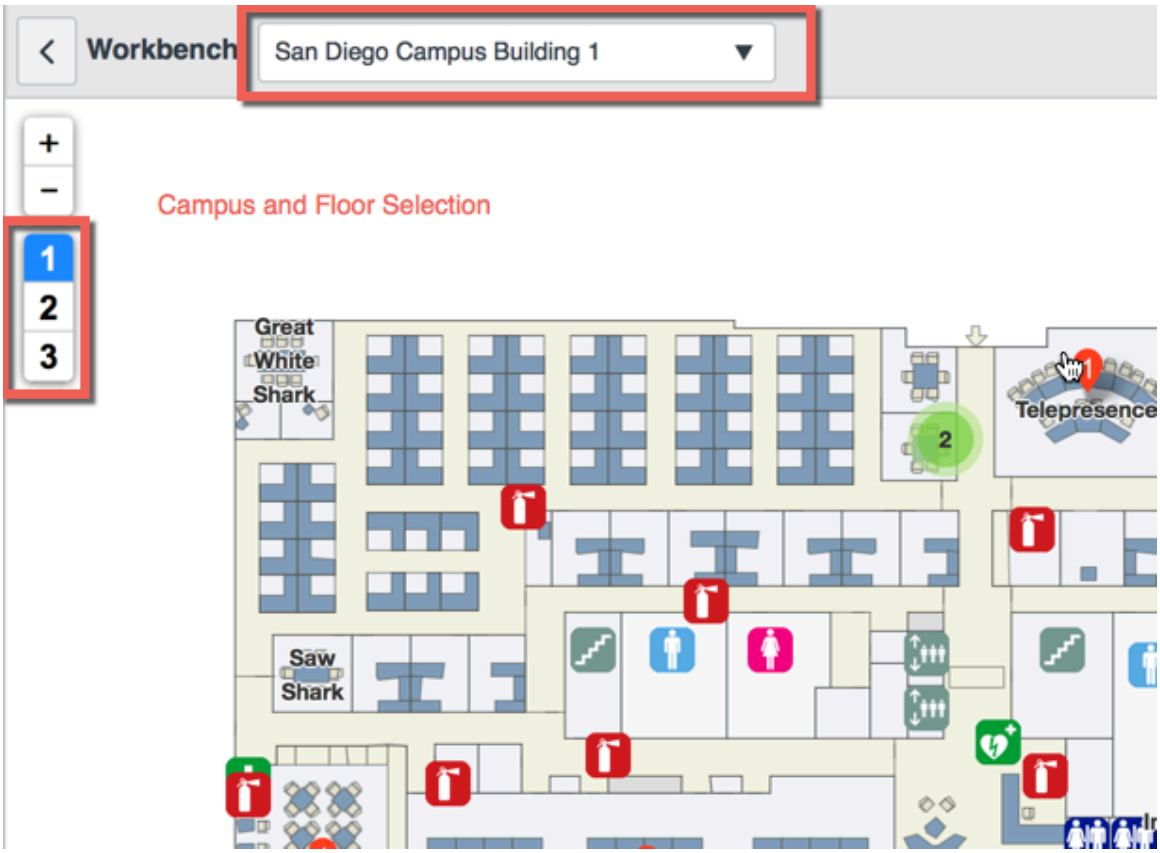
About this task

The Move tab is only visible when the Facilities Move Management plugin (com.snc.facilities_service_automation.move) has been activated.

Procedure

1. Navigate to **All** > **Facilities** > **Workbench**.
2. To help narrow your search results, you can select the campus, building, and floor number for your search.

Note:
The facilities administrator configures the number of search results returned. See Facilities visualization workbench configuration.



By default, facilities administrators can see all move requests for the selected level displayed in the right side pane. Yellow pins ( ) depict those request locations on the floor plan.

3. Continue with one of the following options.
   Search results are returned in the following order:
   - Current Level
   - Other in Campus
   - Other Campuses
4. Continue with one of the following options.

Find a facilities request

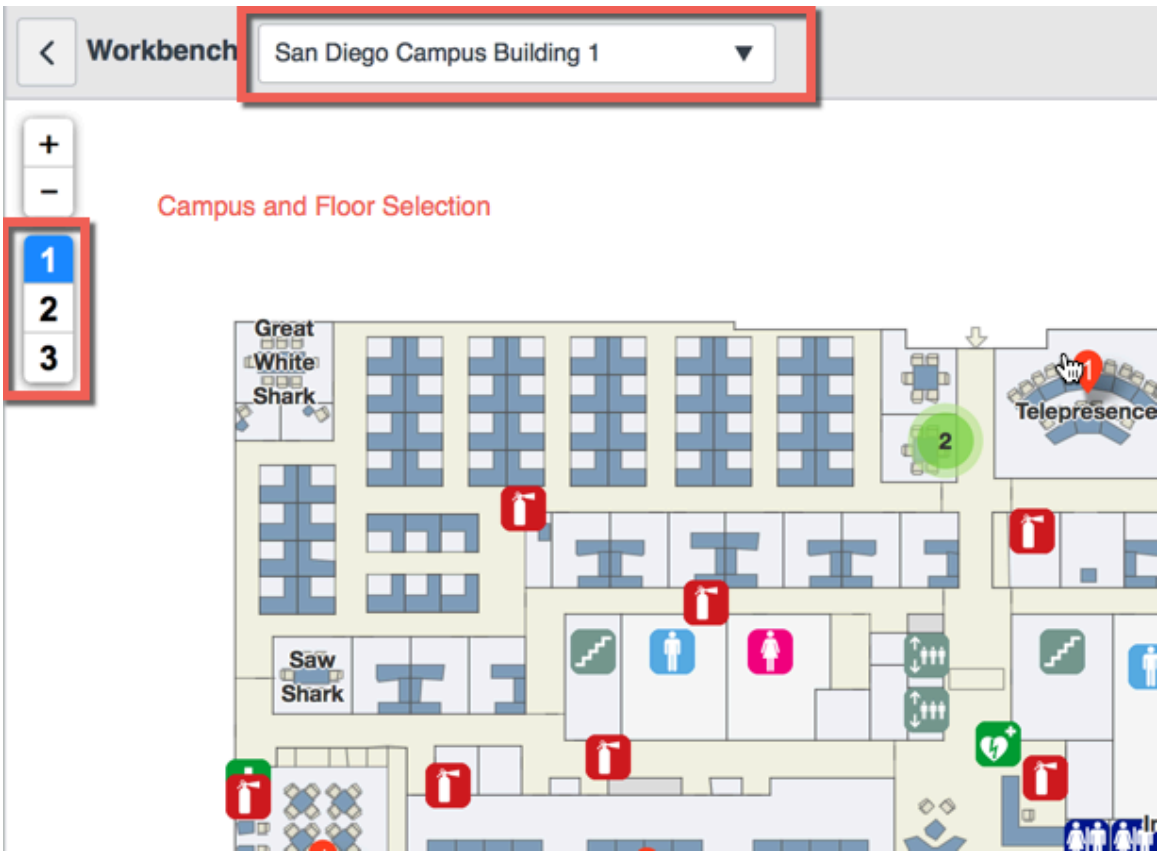
Facilities administrators can locate and manage requests from the Requests tab within the workbench.

Before you begin
Role required: facilities admin

Procedure

1. Navigate to **All** > **Facilities** > **Workbench**.
2. To help narrow your search results, you can select the campus, building, and floor number for your search.

Note:
The facilities administrator configures the number of search results returned. See Facilities visualization workbench configuration.



By default, facilities administrators can see all requests for the selected level displayed in the right side pane. Red pins ( ) depict those requests on the floor plan.

3. Continue with one of the following options.
   Search results are returned in the following order:
   - Current Level
   - Other in Campus
   - Other Campuses
4. Continue with one of the following options.

Edit a zone

Facilities administrators and staff can edit existing zones from the Zones tab within the workbench.

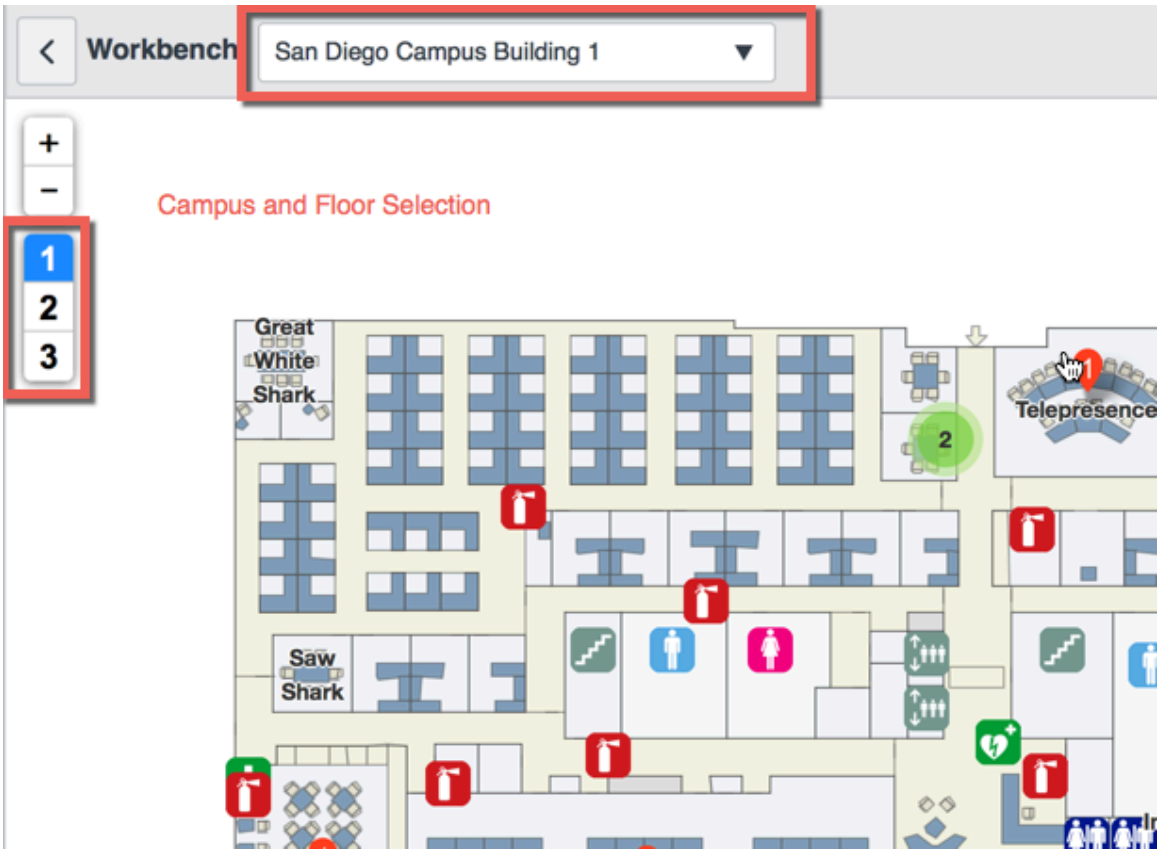
Before you begin

Role required: facilities_staff

Procedure

1. Navigate to **All** > **Facilities** > **Workbench**.
2. On the Zones tab, click **Edit**.
3. Select a zone from the choice list.
   The spaces belonging to that zone are shown on the floor plan, highlighted in blue.
4. Continue with one of the following options.

5. You can select other floors, buildings, and campuses while making edits to a zone.



6. When finished making edits, click **Apply edits**.

Request Management in a Service Management application

Agents regularly access request records as they resolve requests and correspond with the submitters. They can also access built-in reports to see information like the number of active or unassigned requests for an SM application.

Request creation

Requests are created differently based on the role that has been granted to the user. Department administrators can create requests differently than an employee can.

Create a request through a catalog

The catalog provides several different categories so users can choose the one that closely relates to their request.

Procedure

1. Open **Field Service Catalog**.
2. Choose from the displayed categories.
3. Select a subcategory, if necessary.
4. Fill in the fields on the form.

> **Note:**
> Each catalog can display different fields. The following is a list of fields displayed when you select Service Management catalog.

Catalog fields

Field	Description
Opened for	The name of the person submitting this request. Select a new name if you are opening this request on behalf of another user.
Location	The location for this request.
Priority	The priority that describes the importance of this request.
Short Description	A brief summary of the request.
Detailed Description	A detailed description of the request.

5. Click **Submit**.

> **Note:**
> If the catalog fields do not appear on the request form, you can configure the form and add variables or variable sets.

Request creation using inbound email actions

Requests can be automatically created or updated from the information in inbound emails as long as the functionality has been enabled on the configuration screen of SM application. The emails are also to be sent to a mailbox defined by criteria in the appropriate inbound email action.

After the functionality has been enabled by selecting the **Requests can be created and updated by inbound email** option on the application configuration screen, three inbound email actions are available for the SM applications available in the base system. These inbound email actions are also available for new applications created using the SM application creator.

Related topics

Email and SMS notifications

Inbound email actions

Create a request from an inbound email

Requests can be automatically created from the information in inbound emails as long the functionality has been enabled on the configuration screen of SM application. The emails are also to be sent to a mailbox defined by criteria in the appropriate inbound email action.

Procedure

1. Navigate to **All** > **System Policy** > **Email** > **Inbound Actions**.
2. Select the inbound email action.
   For example, **Create Work Order**.
   The inbound email action record opens and displays the default conditions that trigger the inbound email action.

   When an email is sent to the mail list defined by the criteria in **Actions**, a request is created with the following information:

   - The **Contact type** is set to **Email**.
   - The email sender (if found) populates the **opened_by** and **Caller** fields for a newly created sm_order based item.
   - The email subject populates the **Short description** field.
   - The email body populates the **Description** field.
   - The email senders company (Sender->Company) populates the **Company** field.
   - The email senders location (Sender->Location) populates the **Location** field.
   - The entire email is copied into the **Work notes** field.
3. You can use the email action as it is or modify it to meet the needs of your organization.

Create a request from a forwarded inbound email

Requests can be automatically created from the information in forwarded inbound emails as long the functionality has been enabled on the configuration screen of SM application. The emails are also to be sent to a mailbox defined by criteria in the appropriate inbound email action.

Procedure

1. Navigate to **All** > **System Policy** > **Email** > **Inbound Actions**.
2. Select the inbound email action called **Create [application name] Request (Forwarded)**.
   The forwarded inbound email action record opens and displays the default conditions that trigger the inbound email action.

   When an email is forwarded to the mail list defined by the criteria in **Action**, a request is created with the following information:

   - The **Contact type** is set to **Email**.
   - The email sender (if found) populates the **opened_by** and **Caller** fields for a newly created sm_order based item.
   - The email subject populates the **Short description** field.
   - The email body populates the **Description** field.
   - The email senders company (Sender->Company) populates the **Company** field.
   - The email senders location (Sender->Location) populates the **Location** field.
   - The entire email is copied into the **Work notes** field.
3. You can use the email action as it is or modify it to meet the needs of your organization.

Update a request from an inbound email

Requests can be automatically updated from the information in inbound email replies as long the functionality has been enabled on the SM application's configuration screen. The emails must also be sent to a mailbox defined by criteria in the appropriate inbound email action.

Procedure

1. Navigate to **All** > **System Policy** > **Email** > **Inbound Actions**.
2. Navigate to the inbound email action called **Update [application name] Request** and click its **Name**.
   The update inbound email action record opens and displays the default conditions that trigger the inbound email action.

   When an email reply is received in the mail list defined by the criteria in the email action, the associated request is opened and update information is added to the **Work notes** field.
3. You can use the email action as is or modify it to meet the needs of your organization.

Request states

Service Management requests follow a specific life cycle and move through a series of states, which are displayed in the **State** field on the request record.

The request states displayed depend on the SM application, as indicated in the table.

Note:
The **State** field on the request record is always read-only.

Service management request states

State	Description
Draft	Request initiator adds information about the work to be done.
Awaiting Qualification	Initiator fully describes the request, and qualifier can process the request. This state is valid only for the following SM applications: • Field Service Management
Qualified	Request is fully qualified, meaning that all technical information to complete the request tasks has been added, but work has not started. This state is valid only for the following SM applications: • Field Service Management
Awaiting Approval	When the information is complete enough for review by an approver, the request is marked ready for approval. This state is valid only for the Facilities Service Management application.
Approved	The appropriate approver approves the request. This state is valid only for the Facilities Service Management application.
Work In Progress	Work has started.
Closed Complete	Request was completed to specification.

Service management request states (continued)

State	Description
Closed Incomplete	Request could not be completed as specified.
Canceled	Request was canceled.

In addition to the **State** field, the different request task states are also shown visually at the top of each task record with the process flow formatter.

Note:
If the **State flows are enabled** option in the configuration screen is not selected, the process flow formatter is removed. If you added states to the request and task tables, those states are visible on the request form.

Request approvals

Approving a request in an SM application means that the request is ready for task creation and assignment.

When a request is sent to a user with the [SM application]_approver_user role, the approver has several choices. If you select **Approval is required for new requests** in the applications Configuration screen, a newly created request automatically moves to the **Awaiting Approval** state. Otherwise, the request moves to the next configured state.

Request approval states

Approval Choice	Description
Approved	The request is approved.
Rejected	The request is not qualified and it is moved to the canceled state. Also, the following work note is added to the request: **The [SM application] request is rejected.**
More information required	The request does not contain enough information. It reverts to the **Draft** state and the following work note is added to the request: **The [SM application] request needs more information for further approval.**
Duplicate	The request is no longer required, because another request has already performed the work. The request is moved to the **Cancelled** state and the following work note is added to the request: **This is a duplicate [SM application] request.**

Agent assignment methods

Depending on your settings in the SM application's configuration screen, you can assign agents manually or using auto-assignment.

Manually assign agents to active requests

Use this procedure to assign agents to active requests in service management (SM) applications.

Procedure

1. Navigate to one of the following modules:
   - **[SM application]** > **Open - Unassigned** for a list of requests that no one is assigned to.
   - **[SM application]** > **All [SM application] Requests** for a list of all open requests, regardless of their current assignment.
2. Open the request you want to assign.
3. In the **Assignment group** field, enter the group that handles this kind of request.
   If no groups are available, leave this field blank. To look up the assignment group, click the reference lookup icon (🔍) beside the **Assignment group** field.

   Note:
   You do not have to select an assignment group, but doing so limits the users you can assign the request to.

4. In the **Assigned to** field, enter the agent to handle this request.
   To look up an agent, click the lookup icon (🔍) beside the **Assigned to** field.

   Note:
   If one was selected, the users in the search results are limited to the users in the **Assignment group**.

5. Click **Update**.
   An email notification is automatically sent to the assigned agent when email notifications are set up for the instance.

Agent auto assignment

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.

The Auto-Assignment feature can be enabled for requests or tasks, depending on the configuration settings of Service Management (SM) application:

- 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.

Agent auto assignment using rating-based criteria

Rating-based methods, such as location, skills, and time zones, help to auto assign agents based on configuration settings and optional properties. The calculated ratings are used to determine the best agent to perform the task.

Any combination of rating-based methods can be enabled in configuration screen of the application.

When a task is created, a rating for each type of enabled selection criteria is calculated for each available agent. The agent whose average rating is highest is considered for auto-assignment.

The settings for the auto-assignment weighting properties, found in **[SM application]** > **Administration** > **Properties**, are included in the rating calculations.

These values help you prioritize which auto-assignment selection criteria is more important to your organization. The priority values should be [1, 10] and they are factored between 1 and 0. That is, 10 is a factor of 1, 5 is a factor of 0.5, and so on. For an example of how the weighting properties affect agent ratings, see Agent auto assignment using multiple selection criteria.

Agent auto assignment using location

Agents can be auto assigned based on the location defined in their user record and the location of the tasks.

Auto assignment by location can be performed in a task- or request-driven processing environment when the **Auto-selection of agents will consider location of agents** configuration is enabled.

When a task is created, agent locations are compared to the following ranges to determine a location rating for each agent.

Location rating calculation

Distance (mi.) from agent to task	Rating
0–0.1	1
0.11–0.5	0.9
0.51–5	0.7
5.1–10	0.5
10.1–20	0.4
20.1–30	0.3
30.1–40	0.2
40.1–100	0.1
>100	0

When a task is qualified or marked as **Ready for Work**, the agent closest to the task location is considered for the task. If the application is configured so that only location is considered, the closest agent is auto-assigned to the task.

If the application is configured to use other selection criteria—such as skills, time zone, or schedule—the ratings of all selection criteria are averaged, and the agent with the highest overall rating is auto-assigned for the task. See Agent auto assignment using multiple selection criteria for details.

Agent auto assignment using skills

Agents can be auto assigned based on the skills of an agent, and the skills required to perform the task. Assign skills to an agent user records using **Skills** > **Users**.

Auto assignment by skills can be performed in either a task- or request-driven processing environment when the **Auto-selection of agents for tasks requires them to have skills** configuration option must be set to **all** or **some** for the application.

When a task that includes skills is qualified or marked as **Ready for Work**, skills of each agent are compared with the skills required to perform the task, and a rating is calculated based on the skills configuration option. If the option is set to **some**, the agent with the closest skills match is

auto-assigned the task. If the option is set to **all**, only agents who possess all the required skills are considered. If no agents possess all the skills required to perform the task, none are auto-assigned.

Skills rating of an agent is calculated as:

`Skills_agent/Skills_task`

When:

- `Skills_agent` is the number of skills possessed by the agent that match the skills required for the task.
- `Skills_task` is the total number of skills required for the task.

For example, if a task requires four skills, and Agent A possesses three of them and Agent B possesses two of them:

- Skill rating of Agent A = 3/4 or 0.75
- Skill rating of Agent B = 2/4 or 0.5

If the application is configured to use other selection criteria, such as location or time zone, the ratings of all selection criteria are averaged, and the agent with the highest overall rating is auto-selected for the task. See Agent auto assignment using multiple selection criteria for details.

Agent auto assignment using time zones

Agents can be auto assigned based on the time zone defined in their user records and the time zone of the tasks.

Auto assignment by time zone can be performed in either a task- or request-driven processing environment when the **Auto-selection of agents will consider time zone for the task** configuration option must be enabled for the application.

When a task is qualified or marked as **Ready for Work**, agents in the time zone closest to the task time zone are considered for the task. If the application is configured so that only time zone is considered, an agent in the same time zone is auto-assigned the task.

Note:
It is important that the time zones for the agent and the task are set correctly.

When a task is created, agents are rated based on the time zones of both task and agent using the following formula:

`1 - [abs(Task_tz – Agent_tz) ÷ 12]`

Where:

- `abs` is the mathematical function to compute the absolute value.
- `Task_tz` is the offset between the time zone of the task and GMT.
- `Agent_tz` is the offset between the time zone of the agent and GMT.

For example, a task is created in New York City (GMT-4), and two agents are available to perform the task, one in Los Angeles (GMT-7) and one in Paris, France (GMT+1).

The rating of the agent in Los Angeles is calculated as:

`1 - abs((-4) - (-7)) ÷ 12 or 0.75`

The rating of the agent in Paris is calculated as:

```
1 - abs((-4) - (+1)) ÷ 12 or 0.58
```

So if the auto assignment of the task is based on the time zone alone, it is assigned to the agent from Los Angeles.

If the application is configured to use other selection criteria, such as skills or location, the ratings of all selection criteria are averaged, and the agent with the highest overall rating is auto-selected for the task. See Agent auto assignment using multiple selection criteria for details.

Agent auto assignment using time-based criteria

Time-based methods, such as schedules and priority assignment, help you auto assign agents based on configuration settings and optional properties. The calculated ratings are used to determine the best agent to perform the task.

Any combination of time-based methods can be enabled in the application configuration screen.

When a task is created, the schedule of the agent and the task to be performed are combined with rating-based criteria to auto-assign an agent.

Agent auto assignment using schedules

Agents can be auto assigned based on the agent or the task schedule.

Auto assignment by schedule can be performed only in a task-driven processing environment, and the **Auto-selection of agents will consider agent or task schedules** configuration option must be enabled for the application. If this option is turned off, only the agent ratings are used for auto-assignment.

When a task is qualified or marked as **Ready for Work**, agents ratings are evaluated, and the schedules of qualified agents are compared against the schedule of the task to determine the agent with the best matching schedule.

Note:
If the task includes specific time entries in the **Window start** and **Window end** fields, and no schedule of an agent falls within that task window, no agents are assigned. Also if the customer wants a task to be performed at or near a specific time, the **Window start** time should be set as close to that time as possible. For example, the **Window start** and **Window end** fields are set to 1:00 pm and 8:00 pm respectively. The customer prefers the job to be started at 4:00 pm. It is possible that an agent is dispatched at 13:00. So, setting the **Window start** closer to 4:00 can help ensure that the work is performed when the customer prefers it to be done.

If the application is configured to use other selection criteria, such as skills or time zone, the ratings of all selection criteria are averaged, and the agent with the highest overall rating is auto-selected for the task. See Agent auto assignment using multiple selection criteria for details.

Agent auto assignment using priority assignment

The priority assignment feature enables you to configure auto assignment so that agents can be assigned to perform tasks or provide services on a continual, 24x7x365 basis. Priority assignment is triggered when the priority of a task matches the priority set in the application configuration page.

Priority assignment can be used with location and skills settings. However, it can also operate independently.

To use priority assignment, you must set the following configuration options for the application.

Priority auto-assignment configuration options

Field	Description
Process life cycle	Set to **task driven (subtasks are required)**.
Assignment method for tasks	Set to **auto-assignment**.
Auto-selection of agents considers agent or task schedules	Enabled.
Enable priority assignment	Enabled.
Select priorities for assignment	Select one or more priorities.

Only tasks of the selected priority or priorities trigger auto-assignment based on priority assignment.

When a task is qualified or marked as **Ready for Work**, and the priority of the task matches a priority selected for the application, the agent that best matches the schedule of the task is auto-assigned. If the location and skills options are enabled, agents are first evaluated on their physical proximity to the location of the task, and then on how their skills match the skills required to perform the task. The agent whose location, availability, and skills best match the requirements of the task is auto-assigned.

When a task has a priority that matches a priority in the priority assignment list, the Location Rating and Timezone Rating are ignored, even if they have been enabled.

If the priority of a task matches a priority selected in the **Select priorities for assignment** option, and no agents in the assignment group are available to be auto-assigned, the task is assigned to the group manager, regardless of whether the manager is available. It is the responsibility of the manager to locate an agent to perform the task.

Note:
If no agent is located in the same time zone as the task, priority assignment fails.

Agent auto assignment using multiple selection criteria

At its simplest, auto assignment involves identifying a set of selection criteria and automatically assigning the task to the agent who most closely meets the criteria. You can, however, select multiple sets of criteria, including both rating-based and time-based criteria.

When a task is qualified or marked as **Ready for Work**, the following evaluations are performed:

1. The ratings of an agent are calculated. If the **Auto-selection of agents will consider agent or task schedules** configuration option is disabled for the application, the ratings of an agent are used exclusively for auto-assigning an agent.

   For more information on how the ratings are calculated, see:

   - Agent auto assignment using location
   - Agent auto assignment using skills
   - Agent auto assignment using time zones

2. If the **Auto-selection of agents will consider agent or task schedules** configuration option is enabled, the schedules of the agents whose ratings are acceptable for auto-assignment are compared to the schedule for the task, and the agent with the best match is auto-assigned. For more information on time-based methods for auto-assigning agents, see:

- Agent auto assignment using schedules
- Agent auto assignment using priority assignment

Auto assignment is based on the following calculation:

```
(Criteria_1 rating x Criteria_1 weight) + (Criteria_2 rating x
Criteria_2 weight) + (Criteria_3 rating x Criteria_3 weight) /
Number of criteria types used
```

Where:

- Number of criteria types used = 1, 2, or 3 depending on the location, skill, and time zone settings used.

This example calculates agent auto-assignment based on location and skills. The example is based on the following assumptions.

- The **Auto-selection of agents will consider location of agents** configuration option is enabled for the application.
- The **Auto-selection of agents requires them to have some of the required skills for the task** configuration option is enabled for the application.
- The **Skills Weight** property is set to 10 for the application.
- The **Location Weight** property is set to 5 for the application.
- Agents A and B are available to perform a task, and the task requires four specific skills.
- The location of Agent A is 5 miles from the site of the task. Agent A possesses three of the four required skills.
- The location of Agent B is one-quarter mile from the site. Agent B possesses two of the required skills.

Auto assignment for the agents uses this calculation:

```
[(Location rating x Location weight) + (Skills rating x Skills
weight)]/ 2
```

- The auto assignment calculation for Agent A is: `[(0.7 x 0.5) + (0.75 x 1)]/ 2 = 0.55`
- The auto assignment calculation for Agent B is: `[(0.9 x 0.5) + (0.5 x 1)]/ 2 = 0.475`

In this example, Agent A is auto assigned the task.

Collaborate on a request

Within a request, you can enter comments that are visible to the submitter, allowing for collaboration between the two of you. For collaboration with other agents, you can enter comments that are not visible to the submitter.

Procedure

1. Navigate to **All** > **[SM application]** > **All [SM application] Requests**.
2. Open the request you want to collaborate on.
3. In the **Additional comments** (Customer visible) field, enter the comments that you want the person who submitted the request to see.

The submitter can see the comments in this field and add more comments as necessary. Update this field as many times as necessary to correspond with the submitter.

4. To correspond with other agents, enter content that you do not want the submitter to see in the **Work notes** field.

Close a request

When you close a request, you can add details that you want the submitter to be aware of.

Procedure

1. Navigate to **All** > **[SM application]** > **Assigned to me**.
2. Click the request number.
3. In the **Additional comments** field, enter any final notes or comments.
4. Change the **State** field to the appropriate closed state.
5. Click **Update**.

Closed and completed requests

When the **Request lifecycle** option is set to **request-driven**, the assigned agent can complete and close the request once all the tasks in the request are complete.

A **Close Complete** button is visible to the agent assigned to the request. The agent enters work notes before clicking **Close Complete**. When the button is clicked, the open task is automatically completed (if applicable) and the request transitions to the **Complete** state.

Note:
To view all closed tasks, navigate to **All** > **Field Service** > **All Work Orders** and enter **Close Complete** in the **State** field.

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

Create request tasks

Tasks are created in support of requests.

Before you begin

Role required: [SM application]_admin or [SM application]_qualifier

Procedure

1. Navigate to **All** > **[SM Application]** > **Requests** > **All [SM Application] Requests**.
2. Open the request for which you want to create tasks.
3. Click the **Add Task** related link.
   The Task screen for the SM application opens.
4. Fill in the fields on the form.

Note:
Not all fields display for all SM applications.

Request task fields

Field	Description
Number	Auto-generated identification number for the task.
Parent	Request that this task is associated with.
Cloned from	Record number of the task this task was cloned from, if any.
Location	Geographical area where the work must be done. The location is critical for determining the staff member who is assigned to the task.

Field	Description
Template	Template for creating this request (optional). Click the lookup icon and select a template. The description of the selected template populates the **Description** field.
Skills	Abilities necessary to execute the task. This field is automatically completed based on the selection in the **Affected CI** field on the associated request. If you change the affected CI on the request, the system adds any skills required by the new CI to the skills already listed here.
State	Current state of the task, such as **Accepted** or **Closed Complete**. ServiceNow advances the state automatically as users complete the work for each successive state.
Assignment group	Group from which an individual legal staff member is selected to complete the task. The lookup list shows only the assignment groups associated with the selected **Location**. If the **Assignment Group** field is empty, the system searches for a group covering the territory that includes the location of the task.
Assigned to	Individual staff members who should complete the task, selected from the **Assignment group**. If you defined skills and assigned them to staff members, the **Assigned to** field lookup list shows only those staff members in the assignment group who have all the **Skills** required. If no exact match of skills is found, the lookup list shows all assignment group members. **Note:** If state flows are disabled, this field is not mandatory.
Short description	Brief explanation of the task.
Description	Exact technical description of the unit of work to be performed. Qualifiers should provide as much detail about the problem as possible to avoid extra communication with the caller in later stages of the request.
Work notes	Information about the task as it progresses through each state. Work notes are not visible to customers.

Note:
The workflow appears at the top of the form, with the completed states shown in green.

Request task states

Like requests, the associated request tasks follow a specific life cycle and move through a series of states, which are displayed in the **State** field on the task record.

The request task states displayed depend on the SM application, as indicated in the table.

Note:
The **State** field on the request task record is always read-only.

Service management request task states

State	Description
Draft	Qualifier is not done describing the work.
Pending	Request task is ready to be assigned.

Service management request task states (continued)

State	Description
	Depending on the SM application, this state label may be expanded, for example, **Pending Dispatch** or **Pending Change**. The parent request state can change to **Qualified**, for example, if all associated tasks are in **Pending Dispatch** or a later state.
Assigned	Request task is pending acceptance from the assigned agent.
Accepted	Agent accepts the request task and is ready to be done.
Work In Progress	Work on the request task has started. The parent request state changes to **Work In Progress** if no associated tasks are in **Draft** state.
Closed Complete	Request task was completed to specification.
Closed Incomplete	Request task could not be completed as specified.
Canceled	Request task was canceled.

In addition to the **State** field, the different request task states are also shown visually at the top of each task record with the process flow formatter.

Note:
If the **State flows are enabled** option in the configuration screen is not selected, the process flow formatter is removed.

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 .

For more information on Work order task start and end dates, see .

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.

Request 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 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.

Platform Analytics Solutions are available for both Requests and Requested Items Management. To enable a solution for Request Management, an admin can navigate to **Performance Analytics**

> **Guided Setup**. Click **Get Started** then scroll to the section for Request Management. Select either the Requests or the Requsted Items guided setup. You can follow both guided setups, in either order. The guided setup takes you through the setup and configuration process.

Inactive dashboards

Some dashboards in this content pack are inactive when installed. Complete configuration and run data collection jobs before you activate these dashboards. You can activate dashboards in Dashboard Properties, accessible from the context menu. You have to assign an owner to the dashboard to activate it.

Related topics

Activate your Performance Analytics subscription

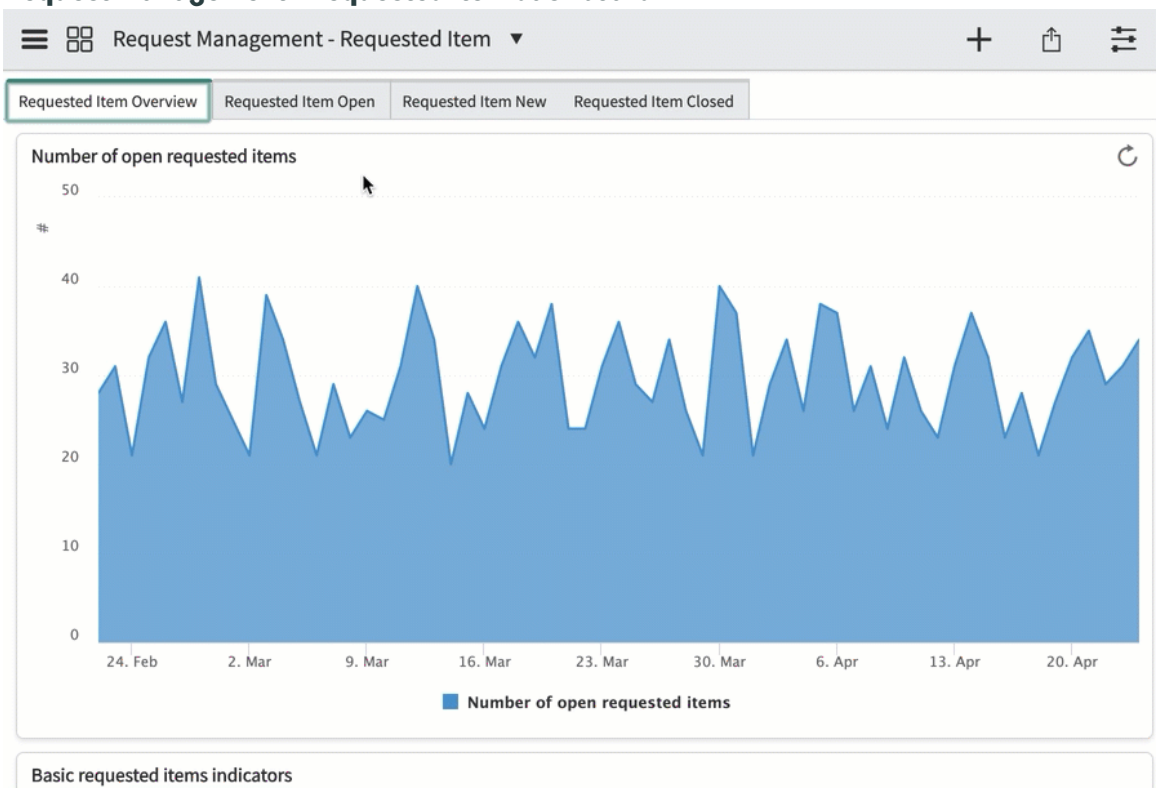
Legacy: Request Management - Requested Item dashboard

Track the progress of purchase orders, transfer orders, and software assignments.

Important:

Starting in Xanadu release, the Request Management Platform Analytics Solutions dashboards are deprecated. Users can use the Request dashboard to view the actionable data visualizations that help in improving the business processes and practices.

Request Management - Requested Item dashboard



End user and roles

End user and goal	Required role
Request manager who needs to track the rate of progress of item requests	sn_request_read, sn_request_write

End user and goal	Required role
	To see the 'Basic requested items indicators' widget, the pa_viewer role is necessary

Indicators

Indicators are displayed in Performance Analytics widgets.

Number of open requested items

Records on the Requested Item [sc_req_item] table opened on or before today and not closed.

Number of new requested items

Records on the Requested Item [sc_req_item] table opened today and not closed.

Number of closed requested items

Records on the Requested Item [sc_req_item] table closed today.

Average age of open requested item

The result in days of the formula `[[Summed age of open requested item]] / [[Number of open requested items]] / 24`

Average close time of requested items

The result in days of the formula `[[Summed duration of closed requested items]] / [[Number of closed requested items]] / 24`

Requested items backlog growth

The result of the formula `[[Number of new requested items]] - [[Number of closed requested items]]`

Indicators not appearing in dashboard widgets but used in formulas:

Summed age of open requested item

The aggregate sum of the RequestedItem.Age.Hours script. This script calculates the difference between the latest and the first time stamp for an open item request record.

Summed duration of closed requested items

The aggregate sum of the RequestedItem.CloseTime.Hours script. This script calculates the difference between the time stamp when an item request is opened and the time stamp of when it is closed.

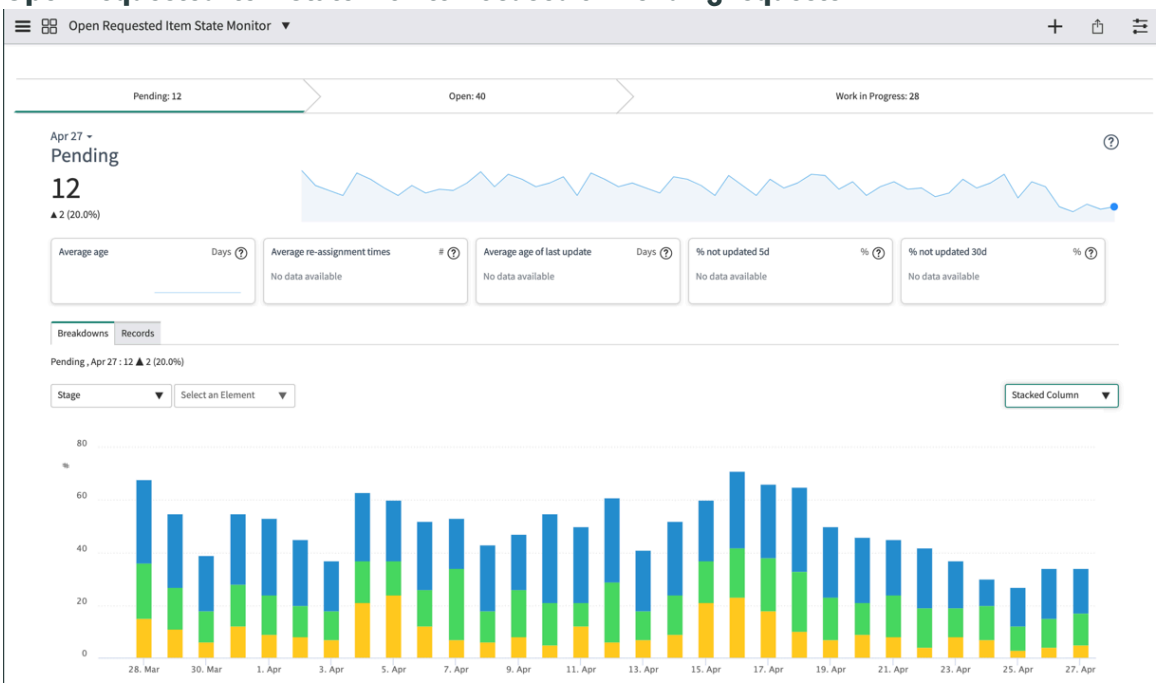
Breakdowns

- Age
- Assignment Group
- Priority
- Stage
- State

Open Requested Item State Monitor dashboard

Use this dashboard when you wish to dive into open requests for items divided by State: Pending, Work in Progress, or all Open requests.

Open Requested Item State Monitor focused on Pending requests



Indicators

Number of open requested items

Records on the Requested Item [sc_req_item] table opened on or before today and not closed.

Number of open requested item not updated in last 30 days

As Number of open requested items, but the Updated value is either empty or from more than 30 days ago.

Number of open requested item not updated in last 5 days

As Number of open requested items, but the Updated value is either empty or from more than five days ago.

% of open requested items not updated in last 30 days

Result of the formula `( [[Number of open requested items not updated in last 30 days]] / [[Number of open requested items]] ) * 100`

% of open requested items not updated in last 5 days

Result of the formula `( [[Number of open requested items not updated in last 5 days]] / [[Number of open requested items]] ) * 100`

Average age of updated since of open requested items

Result of the formula `[[Summed age of updated since of open requested item]] / [[Number of open requested items]] / 24`

Average age of open requested item

The result in days of the formula `[[Summed age of open requested item]] / [[Number of open requested items]] / 24`

Average re-assignment of open requested items

Result of the formula `[[Summed re-assignment of open requested item]] / [[Number of open requested items]] / 24`

Indicators not appearing in dashboard widgets but used in formulas:

Summed age of open requested item

The aggregate sum of the RequestedItem.Age.Hours script. This script calculates the difference between the latest and the first time stamp for an open item request record.

Summed re-assignment of open requested item

The aggregate sum of reassignment counts for open requested items

Summed age of updated since of open requested item

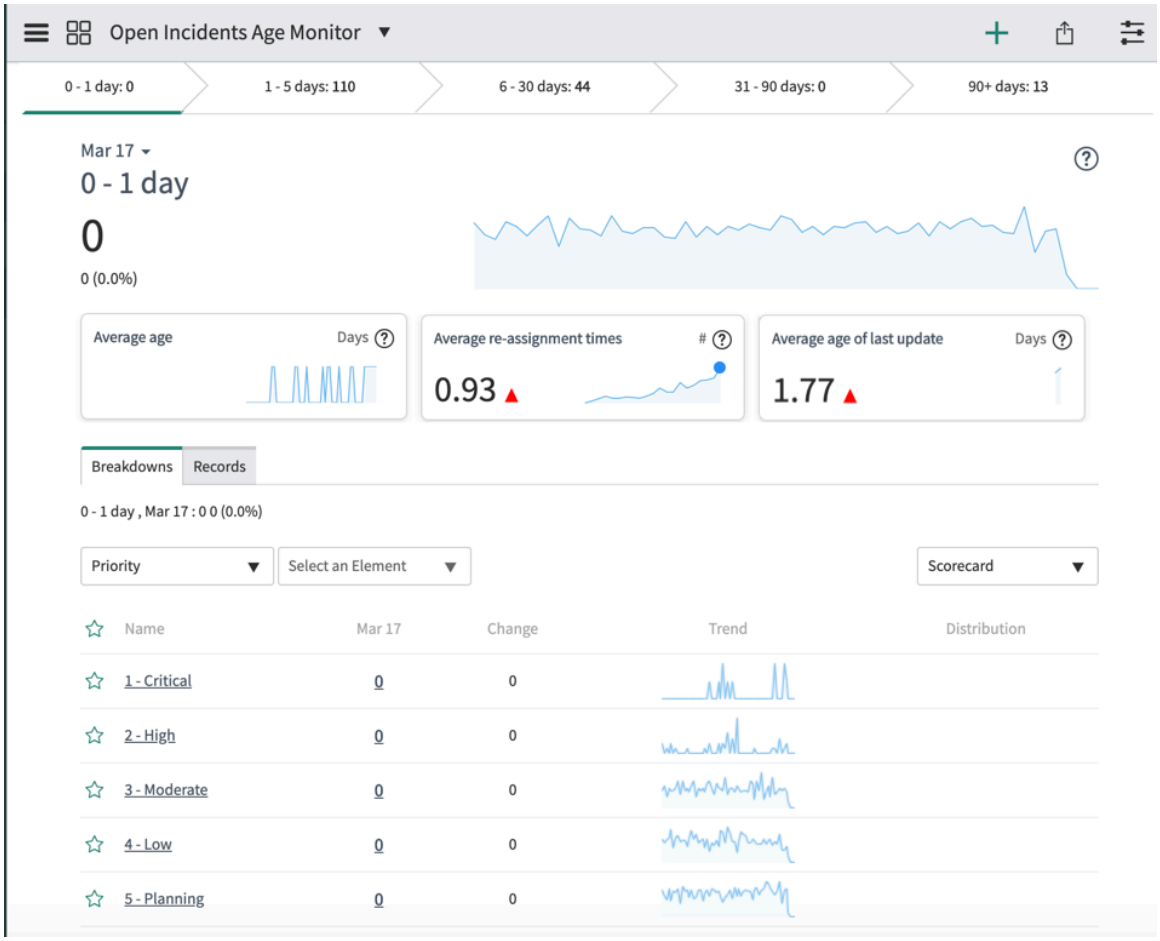
The aggregate sum of the results of the script RequestedItem.UpdatedSince.Hours. This script calculates the difference between the latest time stamp of an open request and the last time stamp of an update to that request.

Breakdowns

- Age
- Assignment Group
- Stage
- State

Open Requested Item Age Monitor dashboard

Use this dashboard when you wish to dive into open requests for items divided by Age.



Indicators

Number of open requested items

Records on the Requested Item [sc_req_item] table opened on or before today and not closed.

Average age of updated since of open requested items

Result of the formula `[[Summed age of updated since of open requested item]] / [[Number of open requested items]] / 24`

Average age of open requested item

The result in days of the formula `[[Summed age of open requested item]] / [[Number of open requested items]] / 24`

Average re-assignment of open requested items

Result of the formula `[[Summed re-assignment of open requested item]] / [[Number of open requested items]] / 24`

Indicators not appearing in dashboard widgets but used in formulas:

Summed age of open requested item

The aggregate sum of the RequestedItem.Age.Hours script. This script calculates the difference between the latest and the first time stamp for an open item request record.

Summed re-assignment of open requested item

The aggregate sum of reassignment counts for open requested items

Summed age of updated since of open requested item

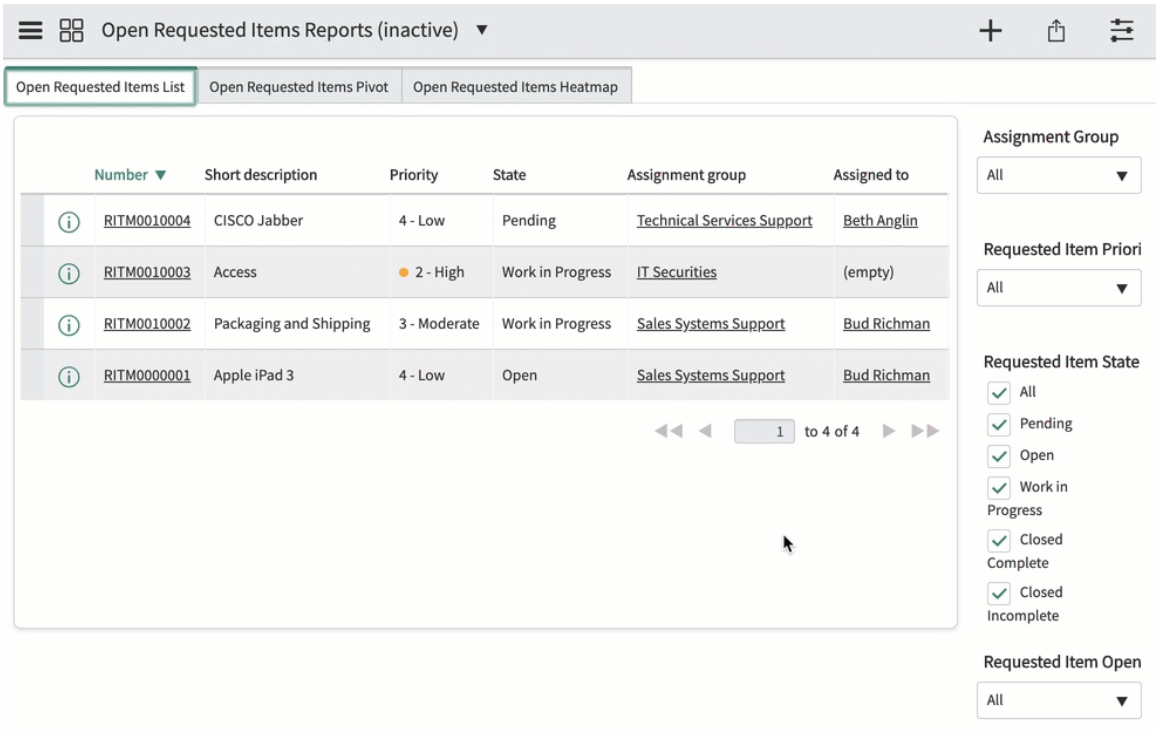
The aggregate sum of the results of the script RequestedItem.UpdatedSince.Hours. This script calculates the difference between the latest time stamp of an open request and the last time stamp of an update to that request.

Breakdowns

- Age
- Assignment Group
- Stage
- State

Open Requested Item Reports dashboard

To view the current state of open item requests, see the Open Requested Item Reports.



Data visualizations

Title	Type	Description
Open requested items - List	List	List of all requests for items that have not been closed
Open requested items - Pivot table	Pivot	Table letting you explore the number of open item requests by any combination of state, assignment group, and priority, for any age bucket or for all ages.
Open requested items - Heatmap	Heatmap	Heatmap letting you explore the number of open item

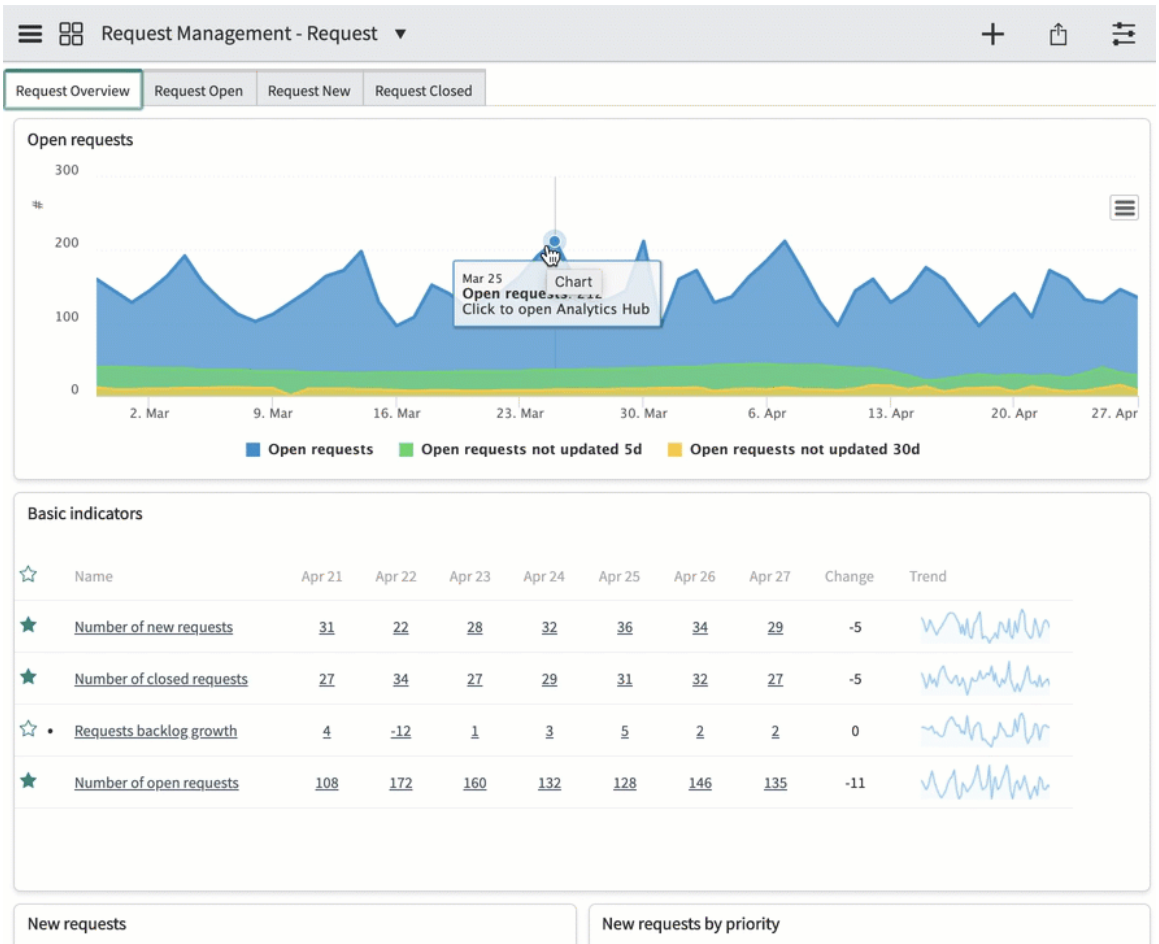
Title	Type	Description
		requests by any combination of state, assignment group, and priority, for any age bucket or for all ages.

Legacy: Request Management - Request dashboard

Track the progress of new requests through the time they are worked on until they are closed.

Important:

Starting in Xanadu release, the Request Management Platform Analytics Solutions dashboards are deprecated. Users can use the Request dashboard to view the actionable data visualizations that help in improving the business processes and practices.



End user and roles

End user and goal	Required role
Request manager who needs to track the rate of progress of all requests	sn_request_read, sn_request_write To see the 'Basic indicators' widget, the pa_viewer role is necessary

Indicators

Number of open requests

Records on the Request [sc_req_item] table opened on or before today and not closed.

Number of new requests

Records on the Request [sc_req_item] table opened today and not closed.

Number of closed requests

Records on the Request [sc_req_item] table closed today.

Number of open requests not updated in last 5 days

As Number of open requests, but the Updated value is either empty or from more than five days ago.

Number of open requests not updated in last 30 days

As Number of open requests, but the Updated value is either empty or from more than 30 days ago.

Average age of open requests

The result in days of the formula `[[Summed age of open request]] / [[Number of open requests]] / 24`

Average close time of requests

The result in days of the formula `[[Summed duration of closed requests]] / [[Number of closed requests]] / 24`

Requests backlog growth

The result of the formula `[[Number of new requests]] - [[Number of closed requests]]`

Indicators not appearing in dashboard widgets but used in formulas:

Summed age of open requests

The aggregate sum of the Request.Age.Hours script. This script calculates the difference between the latest and the first time stamp for an open item request record.

Summed duration of closed requests

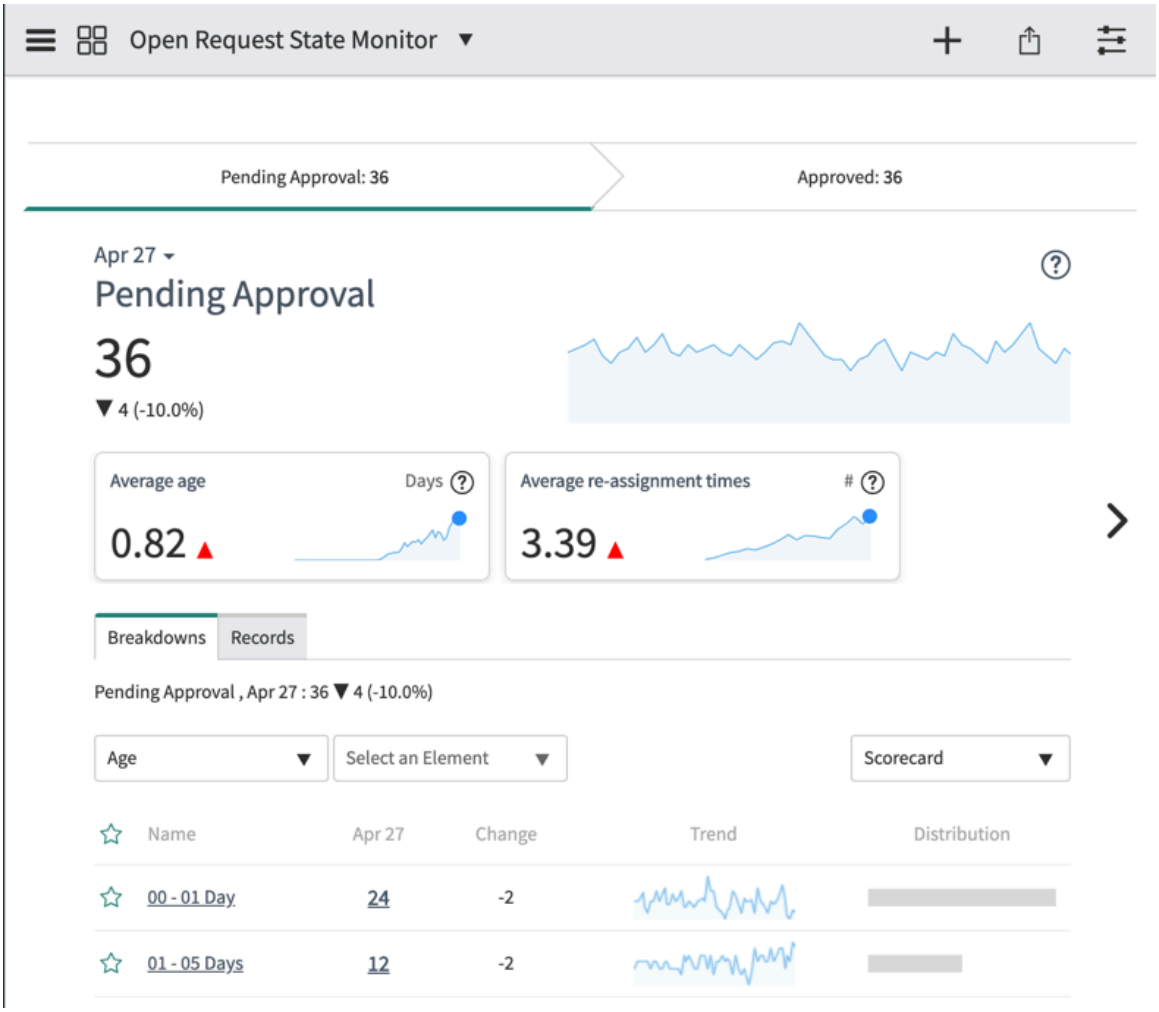
The aggregate sum of the Request.CloseTime.Hours script. This script calculates the difference between the time stamp when an item request is opened and the time stamp of when it is closed.

Breakdowns

- Age
- Assignment Group
- Contact Type
- Priority
- State

Open Requests State Monitor dashboard

Use this dashboard when you wish to dive into open requests divided by State: Pending Approval or Approved.



Indicators

Number of open requests

Records on the Request [sc_req_item] table opened on or before today and not closed.

Number of open request not updated in last 30 days

As Number of open requests, but the Updated value is either empty or from more than 30 days ago.

Number of open request not updated in last 5 days

As Number of open requests, but the Updated value is either empty or from more than five days ago.

% of open requests not updated in last 30 days

Result of the formula `( [[Number of open requests not updated in last 30 days]] / [[Number of open requests]] ) * 100`

% of open requests not updated in last 5 days

Result of the formula `( [[Number of open requests not updated in last 5 days]] / [[Number of open requests]] ) * 100`

Average age of updated since of open requests

Result of the formula `[[Summed age of updated since of open request]] / [[Number of open requests]] / 24`

Average age of open requests

The result in days of the formula `[[Summed age of open request]] / [[Number of open requests]] / 24`

Average re-assignment of open requests

Result of the formula `[[Summed re-assignment of open request]] / [[Number of open requests]] / 24`

Indicators not appearing in dashboard widgets but used in formulas:

Summed age of open requests

The aggregate sum of the Requests.Age.Hours script. This script calculates the difference between the latest and the first time stamp for an open item request record.

Summed re-assignment of open requests

The aggregate sum of reassignment counts for open requests

Summed age of updated since of open requests

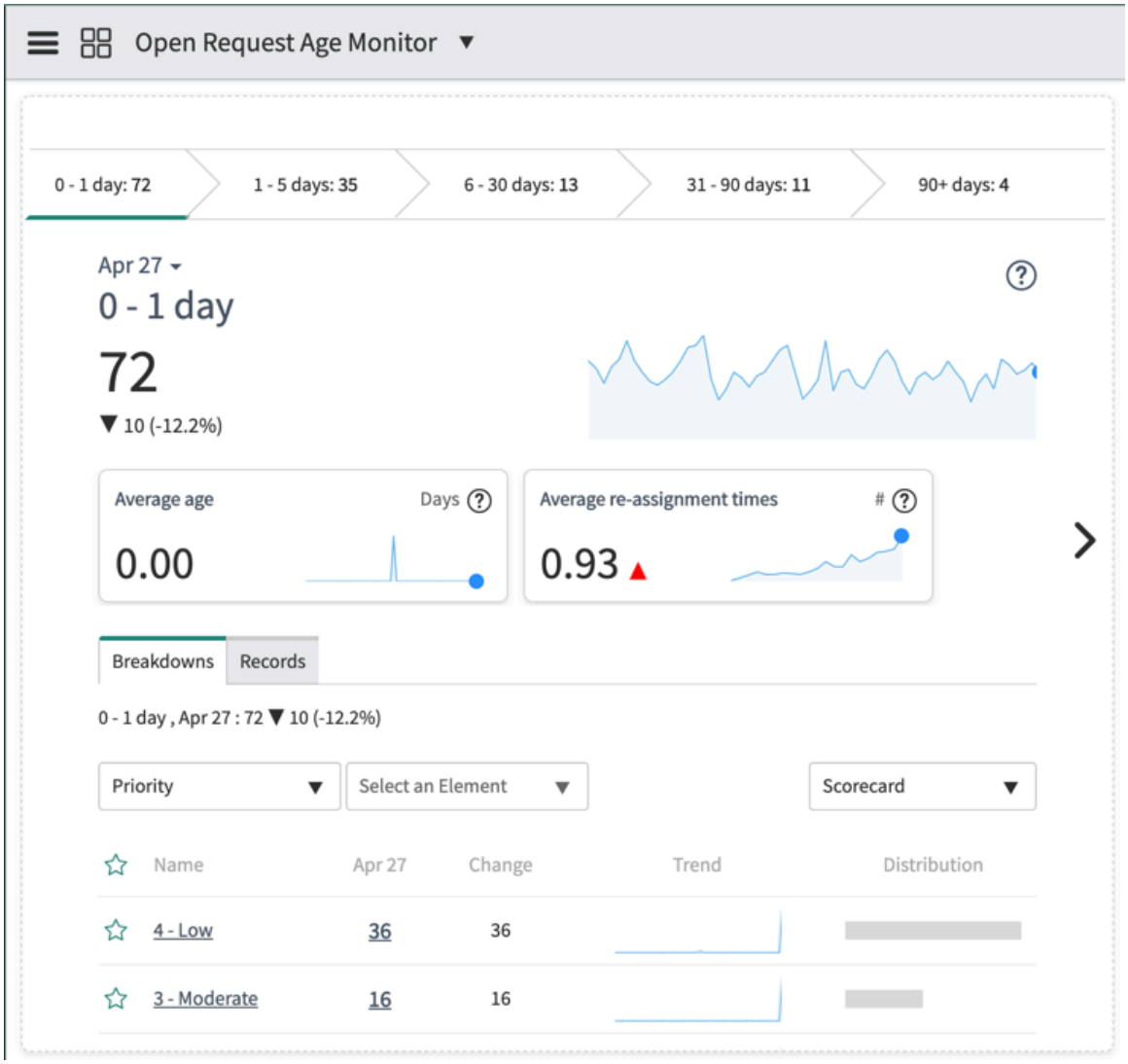
The aggregate sum of the results of the script Requests.UpdatedSince.Hours. This script calculates the difference between the latest time stamp of an open request and the last time stamp of an update to that request.

Breakdowns

- Age
- Assignment Group
- Priority
- State

Open Requests Age Monitor dashboard

Use this dashboard when you wish to dive into open requests divided by Age.



Indicators

Number of open requests

Records on the Request [sc_req_item] table opened on or before today and not closed.

Average age of updated since of open requests

Result of the formula `[[Summed age of updated since of open request]] / [[Number of open requests]] / 24`

Average age of open request

The result in days of the formula `[[Summed age of open request]] / [[Number of open requests]] / 24`

Average re-assignment of open requests

Result of the formula `[[Summed re-assignment of open request]] / [[Number of open requests]] / 24`

Indicators not appearing in dashboard widgets but used in formulas:

Summed age of open request

The aggregate sum of the Requests.Age.Hours script. This script calculates the difference between the latest and the first time stamp for an open item request record.

Summed re-assignment of open request

The aggregate sum of reassignment counts for open requests

Summed age of updated since of open request

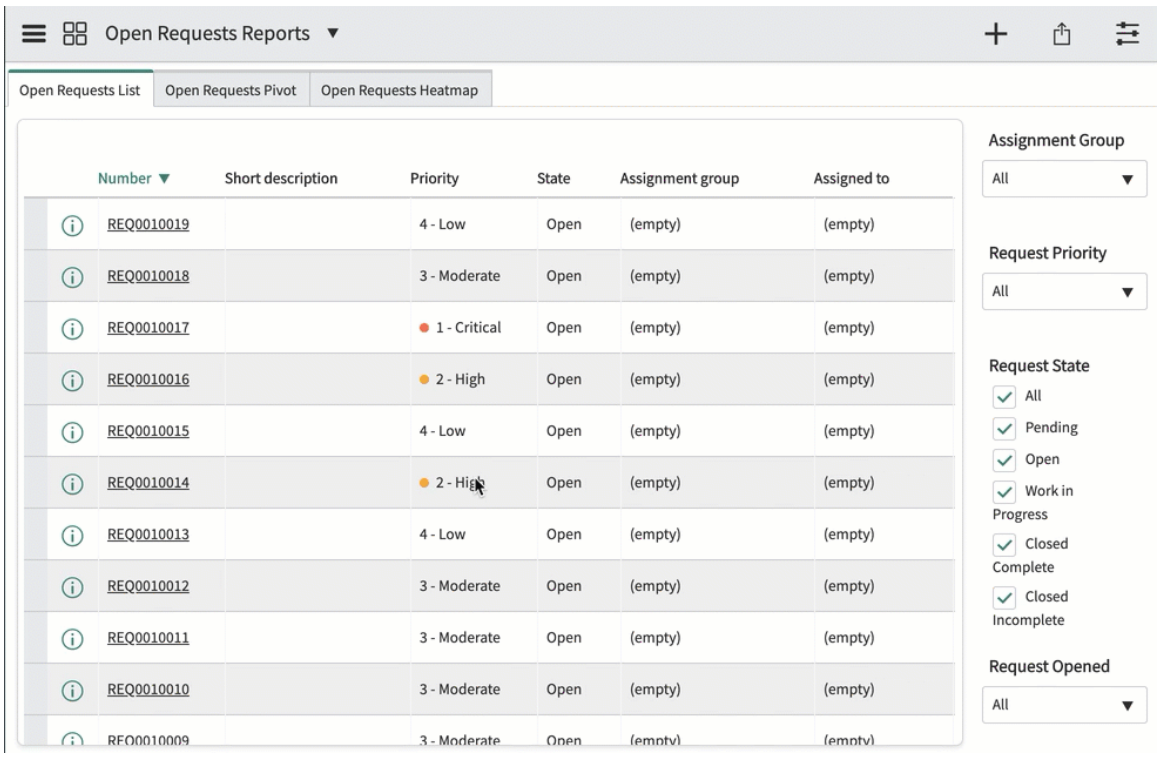
The aggregate sum of the results of the script Requests.UpdatedSince.Hours. This script calculates the difference between the last update of an open request (sys_updated_on) and the last second of yesterday (score_end) and returns negative value if sys_updated_on is after score_end.

Breakdowns

- Age
- Assignment Group
- Priority
- State

Open Request Reports dashboard

To view the current state of open requests, see the Open Request Reports.



Data visualizations

Title	Type	Description
Open requests - List	List	List of all requests that have not been closed

Title	Type	Description
Open requests - Pivot table	Pivot 	Table letting you explore the number of open requests by any combination of state, assignment group, and priority, for any age bucket or for all ages.
Open requests - Heatmap	Heatmap 	Heatmap letting you explore the number of open requests by any combination of state, assignment group, and priority, for any age bucket or for all ages.