



Australia Proactive Service Experience Workflows

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Table of Contents

Product Support for Technology.....	4
Proactive Service Experience Workflows.....	4
Explore.....	5
Configure.....	12
Integrate.....	14
Use.....	15
Reference.....	39
Technology Product Support Case.....	43
Explore.....	44
Configure.....	89
Use.....	89
Reference.....	94
API Notification Management.....	97
Explore.....	97
Use.....	98

Product Support for Technology

ServiceNow® Product Support for Technology provide a way for telecommunications, media, and technology (TMT) service providers to deliver end-to-end support, while understanding customer impact, and offering transparent communication to all parties involved in the support process.

Applications and features

<p>Proactive Service Experience Workflow</p>  <p>Deliver end-to-end workflows to resolve network related incidents, and proactively notify impacted customers.</p>	<p>Technology Product Support Case</p>  <p>Resolve the customer issues faster using guided, step#by#step playbooks.</p>	<p>API Notification Management</p>  <p>Notify third#party systems of proactive or reactive cases in real time.</p>
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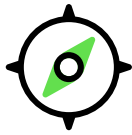
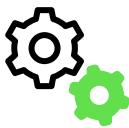


Additional resources

- Learn more about what's new and changed, see the [Product Support for Technology release notes](#).
- Review the multiple TM Forum (TMF) Open APIs supported for the product, see [TMF APIs for TMT](#).
- Log in to your ServiceNow® account and find additional information about implementing and deploying Product Support for Technology features at [Now Create](#).
- Access real-time courses, self-paced training, and career resources at [ServiceNow University](#).
- Find useful resources related to your role and explore best practices at the [Customer Success Center](#).
- Connect with other Product Support for Technology users at [Now Community](#).

Proactive Service Experience Workflows

The Proactive Service Experience Workflows application enables service providers to deliver comprehensive support while understanding customer impact and maintaining transparent communication with all parties involved in the support process.

Get started

<p style="text-align: center;">Explore</p>  <p style="text-align: center;">Learn about Proactive Service Experience Workflows.</p>	<p style="text-align: center;">Configure</p>  <p style="text-align: center;">Configure Proactive Service Experience Workflows.</p>
<p style="text-align: center;">Use</p>  <p style="text-align: center;">Use Proactive Service Experience Workflows.</p>	<p style="text-align: center;">Reference</p>  <p style="text-align: center;">Get additional details including glossary.</p>

Exploring the Proactive Service Experience Workflows

Learn how you can use the Product Support for Technology application to automatically initiate workflows that resolve network-initiated incidents and proactively notify impacted customers.

Request apps on the Store

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

Proactive Service Experience Workflows capabilities

Watch this short video for an introduction to the Proactive Service Experience Workflows application.


<https://player.vimeo.com/video/981575621?h=19878717a5>

Proactive Service Experience Workflows deliver end-to-end support, while understanding customer impact, and offering transparent communication to all parties involved in the support process. Telecommunications, media, or technology service providers can:

Key features

Capabilities	Feature
Identify affected customer accounts based on one or more configuration items associated with upstream services that are tied to an install base.	About identifying affected accounts with Proactive Service Experience Workflows in Incident Management

Key features (continued)

Capabilities	Feature
With Operations Account 360, use data from ITSM and CSM to drill down into customer accounts and visualize key information about the account.	Reviewing customer or partner accounts in Proactive Service Experience Workflows
Generate proactive cases that include synchronizations of certain fields on case insert, incident resolution, or closure of a change request.	Redirection to the right case type
Reduce administrative setup and overhead with enhanced incident and change request forms in the Service Operations Workspace.	Create a case from a change request
Provide capabilities for technical support agents to communicate with external customers without navigating between incident or change requests, and associated case records.	About identifying affected accounts with Proactive Service Experience Workflows in Incident Management
Use five unique Workflow Studio flows that can be modified to suit your business needs.	Proactive Service Experience Workflows architecture
Escalate incidents for faster action based on a preconfigured decision table.	About escalating incidents
Create incident records from certain API clients based on TM Forum TMF621 Rest API standards.	Create an incident in Proactive Service Experience Workflows
Use dedicated roles that enable technical support agents to see both ITSM and CSM and applications.	Components installed with Customer Service Problem Management 

For information about the architectural components of the Proactive Service Experience Workflows application, see [Proactive Service Experience Workflows architecture](#).

Proactive Service Experience Workflows architecture

There are multiple components that make up the architecture of the Proactive Service Experience Workflows application.

The main components are as follows:

- Flows and subflows
- Escalation stages
- Decision tables
- Messages
- Business rule
- Client scripts
- System properties
- Roles

- Assignment groups
- Service Operations Workspace

Decision tables

Based on the defined condition, Workflow Studio works with the Incident Escalation Policy [sys_hub_flow] decision table to determine which subflow to generate at certain escalation points.

Messages

Each subflow in Proactive Service Experience Workflows is associated with a message file that provides instructions for agents to use to troubleshoot, escalate, and resolve network-initiated incidents. For more information about how to customize the default instructions for your internal troubleshooting processes, see [Customize message files](#).

Roles

The `sn_ind_tsm_core.noc_agent` role is available with the Proactive Service Experience Workflows application. This role when added, ensures that the technical support agent can see the relevant information between ITSM and CSM applications. This role includes the following:

- itil
- wm_initiator
- wm_read
- sn_customerservice.case_viewer
- sn_customerservice.customer_data_viewer

Several assignment groups are included with this role and other groups can also have the admin role. The `sn_ind_tsm_sdwan.ticket_integrator` role can be used for trouble tickets created from the TMF 621 Open API use cases.

Proactive Service Experience Workflows process

The following diagram shows the steps involved in the Proactive Service Experience Workflows process:

1. Event triggers an incident



2. Investigate the incident



3. Understand customer impact



4. Generate proactive major case



5. Decision-driven escalation (optional)



6. Communicate with customers (ongoing)



7. Resolve incident and auto-close cases

Proactive Service Experience Workflows

Enhancing customer impact visibility for PSEW processes

Use the customer impact tab to reduce navigation time, and enhance tracking and management of PSEW processes. This visibility enables you to quickly assess business impact and take informed actions.

The customer impact tab is available in incident, change, and problem case records and is aligned with the diagnostic framework. This tab displays key metrics and insights across customer accounts, reactive cases, and install base items. It improves visibility and streamlines decision-making during PSEW processes.

You can create proactive cases after analyzing the impact and communicate with the customers or consumers.

Example of customer impact tab

Device Failure for vManage_10001

Stage: L3 investigation

Overview Customer impact Details Related records

Affected contract value: \$0

Affected products: 0

Affected install base: 6

Total reactive cases: 0

Affected customers

Account	Contract value	Account escalated	Reactive cases	Proactive record	Communication sent
<input checked="" type="checkbox"/> Avid Corporation	\$0	False		CS0001022	Yes
<input type="checkbox"/> Tom Tom Networks		False			No
<input type="checkbox"/> Unity System		False			No

Showing 1-3 of 3

Record Information

SLAs and timings

Response SLA: Completed

Resolution SLA: Breached

Caller: Event Management (02:54:55 America/Los_Angeles)

Access

You can access the customer impact tab as follows:

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Open the incident, problem, or change record.
3. Select the **Customer impact** tab.

Indicators

The Customer impact tab provides the following indicators. Select the indicator to view the details.

Overview indicators

Indicator	Description
Affected total contract value	Combined contract value of both impacted accounts and consumers, helping quantify the overall business impact.
Affected products	Number of products purchased by impacted customers. For example, multiple ServiceNow instances purchased by a single customer.
Affected install base	Total number of impacted install base within the customer environment.

Overview indicators (continued)

Indicator	Description
Total reactive cases	Total number of reactive cases.

Affected customers

The Affected customers section provides a detailed view of impacted customer and consumer accounts. This section enables you to assess service impact, track engagement, and take proactive actions.

The Affected customers section contains the following tabs.

Accounts tab

List of impacted customer accounts and their details.

Consumers tab

List of impacted consumers and their details.

To learn more about the columns in each tab, see [Affected customers list columns](#).

The Affected customers section uses interactive pills to quickly filter and view customer and consumer-level impact:

Interactive pills

Pill	Description
All	Lists the complete list of accounts.
Critical service impact	Lists accounts experiencing significant service disruption.
No proactive records	Lists accounts without any proactive case created.
No customer communication	Lists accounts that have not yet received any communication.

To learn more about how to create proactive cases and resolve incidents, see [About identifying affected accounts with Proactive Service Experience Workflows in Incident Management](#).

Proactive Service Experience Workflows and Incident Management within the Service Operations Workspace

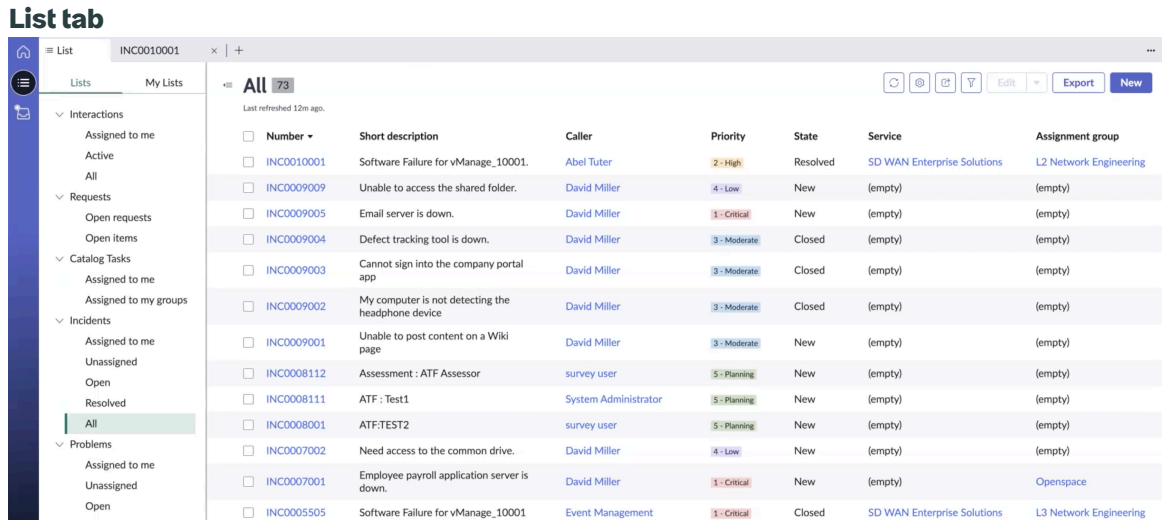
You can use the Service Operations Workspace application to get an overview of how a network agent can prioritize tasks and resolve incidents.

Viewing the Service Operations Workspace

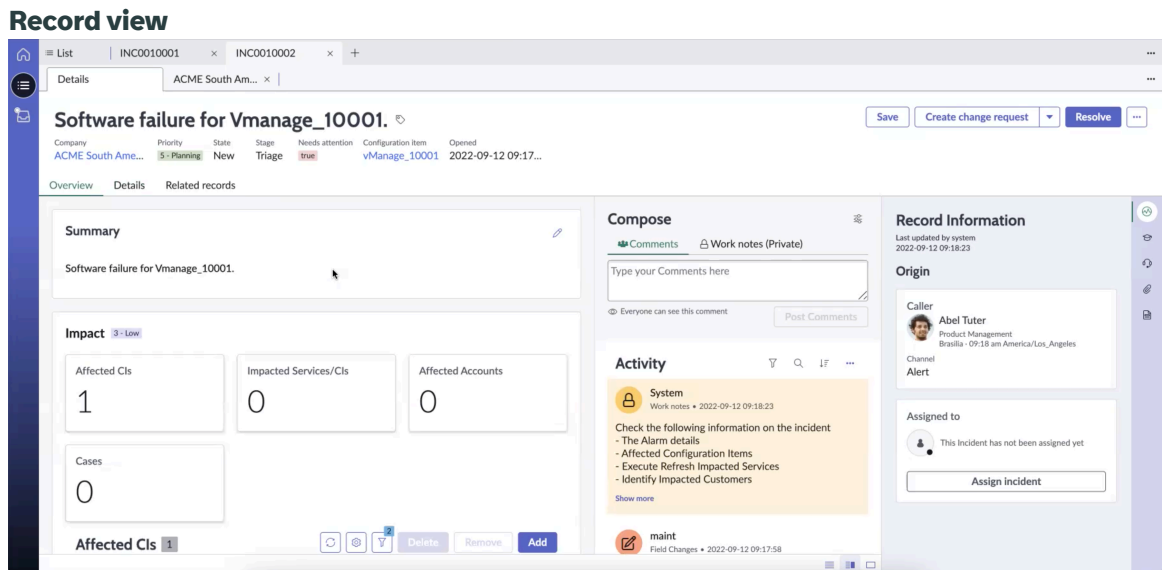
From the **Workspaces** menu, select **Service Operations Workspace** and select the **Home** icon. From the landing page, a network agent can analyze incidents and view cases and upcoming tasks. To view:

- **Lists:** Select the **Lists** tab in the Service Operations Workspace. From the Lists tab, a network agent can analyze the individual lists of incidents and tasks and then take the appropriate action.

The following example shows the List tab.



- **Records:** Open any task record to navigate to its record view as shown in the following example.



Example

The Proactive Service Experience Workflows application is automatically triggered when an incident is created within the system by an alert flow. A technical support can manually create this alert in the Service Operations Workspace. It can also be generated from an external fault management system using the TMF 621 integration.

The following example demonstrates how Proactive Service Experience Workflows is used to resolve an external network-initiated incident. In this example,

1. An external fault management system using TMF 621 integration sends an alert that triggers the creation of an incident record with the following values:
 - Short Description and Description: Vmanage_10001 failed to restart after a change was implemented.
 - Configuration Item: Vmanage_10001 (SD-WAN CI Class)
 - Category: SD-WAN
 - Sub Category: Protocol Failure
 - Affected Customers: 5
2. A technical support engineer opens the incident record inside the Service Operations Workspace and sees the list of impacted services and accounts in the **Overview** section.
3. The technical support engineer triages the issues by reviewing the latest changes in the Agent Assist that triggered the outage.
4. The technical support engineer then restarts the SD-WAN controller and selects **Generate Proactive Cases** in the Cases section. One major case and five child cases are generated and notifications are sent to the primary contacts for the affected accounts.
5. As a major case was created, the technical support engineer notifies the major issue manager of a potentially serious outage. The Major Issue Manager manages the major case record and communication with both technical teams and affected customers.
6. The Technical Support Engineer (TSE) realizes the device can't be rebooted and might have failed altogether. The TSE changes the Sub Category field to device failure and selects the **Escalate UI** action and enters a work note
7. The next level L2 Support team receives the incident and updates the record status.
8. The L2 Technical Support Engineer tries to troubleshoot the issues on the SD-WAN controller and successfully restarts the configuration item. Four out of the five the affected accounts report the issue is resolved, but the fifth account is still experiencing some problems.
9. To diagnose further issues with the fifth account, the L2 Technical Support Engineer performs the following steps:
 - Selects the check box next to the case record on the Overview page.
 - Selects the **Notify UI** action to send a message via additional comments to the contact person on the case record.
10. The contact person receives the additional comment and performs some extra steps. When the service is restored, the contact updates the status in the CSM portal.
11. Seeing the additional comments in the incident record, the L2 Technical Support Engineer changes the State field to **Resolved**.

The resolution information is copied down to each case record, while the Major Issue Manager resolves the major case record and any associated cases.

Configuring Proactive Service Experience Workflows

You can configure Proactive Service Experience Workflows so that you can add users to assignment groups. You can also create custom instructions for engineers to guide them in resolving network-initiated issues through automatically provided workflows.

Install Proactive Service Experience Workflows

If you're a user with the system administrator role, you can install the Proactive Service Experience Workflows application.

Before you begin

Ensure that the application and all of its associated ServiceNow Store applications have valid ServiceNow entitlements. For more information, see [Get entitlement for a ServiceNow product or application](#).

- Role required: admin
- Plugins required: The following plugins must have been installed:
 - Customer Service Management
 - Customer Service with Service Management
 - Service Operations Workspace

About this task

The Telecom core application is installed with Proactive Service Experience Workflows:

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. Find the Proactive Service Experience Workflows application (sn_ind_tsm_sdwan) using the filter criteria and search bar.

You can search for the application by its name or ID. If you can't find the application, you may have to request it from the ServiceNow Store.

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

3. In the Application installation dialog box, review the application dependencies.

All dependent plugins and applications that are included, or must be installed are listed in the dialog box.

4. **Optional:** If demo data is available and you want to install it, select **Load demo data**.

(Optional) Demo data comprises sample records that describe application features for common use cases. Load demo data when you first install the application on a development or test instance.

Important: If you don't load the demo data during installation, it's unavailable to load later.

5. Select **Install**.

Add users to Proactive Service Experience Workflows assignment groups

Add users to Proactive Service Experience Workflows assignment groups so that they have the necessary role and can be assigned to resolve network-initiated issues at the appropriate escalation level.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > User Administration > Groups**.
2. Select the group name.
The four assignment groups are as follows:
 - Network Coordinators
 - L1 Network Engineering
 - L2 Network Engineering
 - L3 Network Engineering
3. In the Group Members related list, select **Edit**.
4. Select one or more names in the Collection list.
5. Select **Add**.
6. Select **Save**.

Integrating Proactive Service Experience Workflows with southbound external systems

In Proactive Service Experience Workflows, you can submit outbound service test run requests to various external systems by integrating the application with the external southbound systems.

Overview of southbound external systems

When the tests are executed, requests are sent to the southbound test and diagnostics systems. These systems then determine the test outcomes and identify any failures.

Using this integration, a Communications Service Provider (CSP) can do the following tasks:

- Trigger outbound requests for one or more service test runs by using the TeleManagement Forum (TMF) 653 Open POST order API.
- Share updates with the external systems about the inflight changes to the existing test runs that have outbound requests.
- Manage the inbound response of the outbound requests for the test run.
- Manage the errors and exceptions for the outbound requests and inbound responses.

How the integration works

The integration process for with the external service test management systems is as follows:

1. As the administrator, you activate the Test Specification Open API to capture the test runs from the service problem case.


To learn more, see [Service Test Management Open API](#) .

2. The integration now begins:

- a. The test manager creates the test run in the test run table.

For more information on setting up test definitions, see [Setting up test definitions](#) .

- b. The generated payload is sent to the endpoint of the external fulfillment system.

For more information on configuring external system endpoints by creating an integration request, see [Workflow Studio flow integrations](#) .

Note:

- If the test run is configured as hierarchical in the decision table, the system sends all the child service test runs in the hierarchy to the external system that is configured in the application spoke selector.
- If the test run is configured as non-hierarchical in the decision table, the systems send only the individual test run to the external system that is configured in the application spoke selector.

To learn more about spokes, see [Building spokes using Spoke Generator](#) .

3. If the fulfillment request is successful, a response is received from the external system and is captured in the Test Run table (sn_st_mgmt_test).

Note: The customer must fill the id field of the test measure definition.

Using Proactive Service Experience Workflows

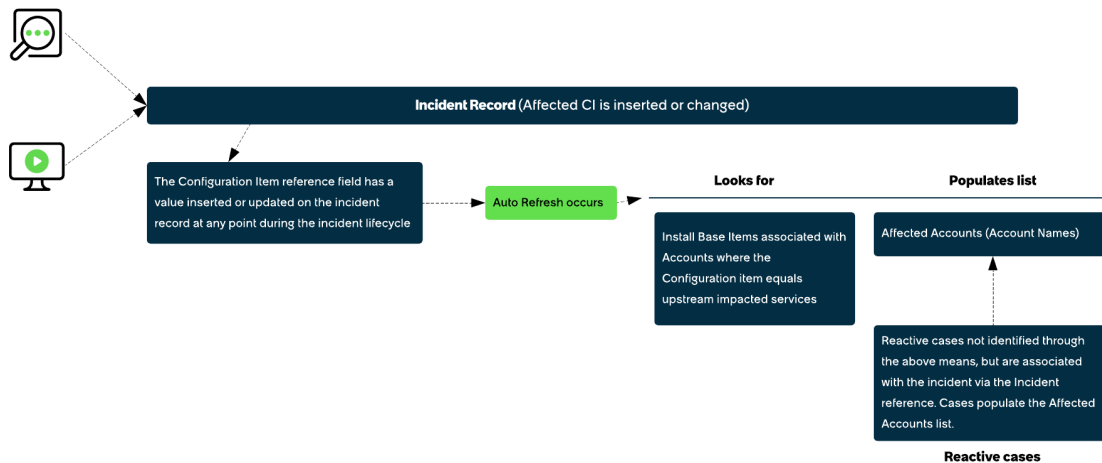
By using ServiceNow[®] Proactive Service Experience Workflows, you can help resolve network-initiated incidents and proactively notify impacted customers. This application enhances the Incident Management application for common SD-WAN service issues that are detected by network management systems.

About identifying affected accounts with Proactive Service Experience Workflows in Incident Management

An incident record is created when an event management system generates an alert and the affected accounts can be viewed in the Service Operations Workspace.

When the technical support engineer logs in to the Service Operations Workspace, the affected configuration item and services are listed in the Overview section. The details about customer and consumer accounts are listed in the Customer impact tab. These details are automatically updated when the Configuration Item in the Incident record is updated. When the Configuration Item is updated, the **Refresh Impacted Services** script is automatically triggered and retrieves services that are experiencing an outage or degradation. The impacted services associated with the accounts are identified and updated. Additionally, if a CSM agent associates a case with the incident record, the Affected account list is also updated. When the Affected account list is updated, the customer impact is visible to the support teams working on the incident record. To learn more about the Customer impact tab, see [Enhancing customer impact visibility for PSEW processes](#).

The following diagram shows the steps involved in creating an incident record.



Note: The Change Management workflow follows the same process. When a configuration item is updated in a change request record, the **Refresh Impacted Services** script is triggered and the affected accounts are retrieved. Since the configuration item field is set to read-only, you must ensure that this field is populated before the script is triggered. See [Create a case from a change request](#) for more details.

Create an incident in Proactive Service Experience Workflows

Create an incident record in Proactive Service Experience Workflows to document an issue that your customer is facing.

Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER, admin

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace* > **Incidents** > **All**.
2. From the incident list view, select **New**.
3. On the form, fill in the fields.

Incident form

Field	Description
Short description	Brief description of the incident.
Description	Detailed explanation of the incident.
Number	Unique system-generated incident number.
Company	Customer account that faced a network issue.
Caller	User who contacted you about an issue.
Location	Location of the caller.
Channel	Communication method that is used to create the incident. The available options are: <ul style="list-style-type: none"> ○ Chat ○ Email ○ Phone

Field	Description
	<ul style="list-style-type: none"> ○ Monitoring ○ Self-service ○ Virtual agent ○ Walk-in
State	State of the incident through several stages of resolution.
Impact	Measure of the effect of an incident or problem.
Urgency	Measure of how long the resolution can be delayed until an incident or problem has a significant business impact.
Priority	Based on the impact, urgency, and how quickly the resolution can be completed.
Service	Affected business service.
Service Offering	Service offering that consists of one or more service commitments that uniquely define the level of service for the availability, scope, pricing, and packaging options.
Configuration item	Affected configuration item.
Assignment group	Group that works on the incident.
Assigned to	User who works on this incident. If the Assignment group changes, the Assigned to field is cleared.
Additional comments	More information about the issue as needed. All users who can view the incidents can see the additional comments.
Work notes	Information about how to resolve the incident, or the steps that were taken to resolve it, if applicable.
Category and Sub Category	Type of issue. After selecting the category, select the subcategory, if applicable.

4. Select Save.

Result

The incident is created.

Resolve an incident record in Proactive Service Experience Workflows

Resolve an incident record by creating cases from record so that you can identify and solve network issues for your enterprise customers.

Before you begin

This task assumes that a workflow has already been triggered and an assignment group has been assigned.

Role required: sn_ind_tsm_sdwan.PSEW_USER

About this task

After a workflow in Proactive Service Experience Workflows triggers, you can identify the customers and systems that are affected by the network issue. You can then either automatically

create the individual cases for the impacted customers or create a major case and child cases for a larger number of affected customers.

Procedure

1. Navigate to the *Service Operations Workspace*, and select **List > Incidents > Open**.
2. Select an incident from the list.
3. **Optional:** In an existing incident, assign the incident.
4. See the affected configuration items (CIs) by selecting the **Affected CIs** card.
5. See the impacted services by selecting the **Impacted Services/CIs** card and selecting **Refresh Impacted Services**.
6. See the affected accounts by selecting the **Customer impact** tab.

To learn more about the **Customer impact** tab, see [Enhancing customer impact visibility for PSEW processes](#).
7. Look for the names of the customers who are affected by selecting the Affected accounts section and checking the Account column.

Typically, the network coordinator creates cases so that the impacted customers are proactively notified of the network-initiated issues.
8. Generate proactive cases for the affected customers.

To learn more see, [Generate a proactive case for a customer issue](#).
9. Notify a customer about the creation of case record.

To learn more, see [Communicate with customer about proactive case](#).
10. Update the case record about the resolution progress.

To learn more, see [Update the proactive case with the resolution progress notes](#).
11. Create reactive case record.

To learn more, see [Create a reactive case from the incident record](#).
12. If you want to update the probable cause of the incident, select the **Cause** tab and save your message.
13. Resolve an incident by selecting **Resolve** on the incident record.

In the Resolve pop-up window, enter the resolution code and resolution notes and select **Resolve**.

Note: Only minor cases are automatically closed. For major cases, you must manually close all the related cases.

Result

When the incident is resolved, it triggers the auto-closure of related cases.

- If there's no major case, all the related individual cases are resolved and are updated with the work notes. The following field values from the parent incident record are also populated in the related cases:
 - Resolution Notes
 - Resolution Code
 - Probable Cause
- If there's a major case, the related cases don't get auto-resolved and a message is added to the work notes of the incident record, "There is a major case associated with this incident."The following field values from the parent incident record are populated in all the related major and child cases:

- Resolution Notes
- Resolution Code
- Probable Cause

Generate a proactive case for a customer issue

Generate a proactive case record for a customer issue in an incident, problem, or change. Inform the customer or consumer about the proactive case for the service issue.


Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER

About this task

Analyze the service issue in an incident, problem, or change record. Generate a proactive case record to resolve the customer or consumer issue.

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Select the list icon ()
3. Navigate to **All** > **Incidents** > **All**.
4. Open the incident record.
5. Select the **Customer impact** tab.
6. In the Affected customers section, select the account for which you want to send the email.

i Note: You can select more than one account. However, you can select either customer accounts or consumer accounts, not both at the same time.

7. Select **Generate Proactive Records**.
8. Select one of the following.

Option	
<p>Generate proactive records with communication</p>	<p>When you select Generate proactive records with communication, the Create customer communication window appears.</p> <ol style="list-style-type: none"> a. In the Template field, select Email to proactive case. b. Select Next. c. In the Create new case window, select the type of service. d. Select Create proactive records. <p>A proactive case record is created and an email is sent to the customer or consumer account.</p>
<p>Generate proactive records</p>	<p>When you select Generate proactive records, the Create new case window appears.</p>

Option	
	<p>a. Select the type of service.</p> <p>b. Select Create proactive records.</p> <p>A proactive case record is created and appears in the Affected customers section.</p>

Result

A proactive case record is created and appears in the Affected customers section.

Related topics

[Enhancing customer impact visibility for PSEW processes](#)

Communicate with customer about proactive case

Communicate with the customer about the proactive case that is generated for service issue. Address the issue promptly and maintain clear, effective communication with the customer.



Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER

About this task

Analyze the service issue in an incident, problem, or change record. If no communication was sent to the customer about the generated proactive case, send an email.

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Select the list icon ()
3. Navigate to **All** > **Incidents** > **All**.
4. Open the incident record.
5. Select the **Customer impact** tab.
6. In the Affected customers section, select the account for which you want to send the email.
7. Select the more option icon ()
8. Select **Create communication** from the option list.
9. In the **Template** field, select **Email to proactive case**.
10. Select **Finish**.

Result

The system sends an email to the customer or consumer account.

Related topics

[Enhancing customer impact visibility for PSEW processes](#)

Update the proactive case with the resolution progress notes

Send notes to the proactive case record about the resolution progress. Update the proactive case record using insights from the customer impact tab.



Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER

About this task

Analyze the service issue in an incident, problem, or change record. Update the associated proactive case with resolution progress notes.

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Select the list icon ()
3. Navigate to **All** > **Incidents** > **All**.
4. Open the incident record.
5. Select the **Customer impact** tab.
6. In the Affected customers section, select the account that has a case record where you want to sent the message.
7. Select the more option icon ()
8. Select **Messages** from the option list.
9. In the **Enter Message** field, type your message.
10. Select **Submit**.

Result

A note is automatically inserted in the **Activity** field of the incident record and also in the selected cases record. If your customer updates the case with any message, it automatically synchronizes with the incident record too.

Related topics

[Enhancing customer impact visibility for PSEW processes](#)

Create a reactive case from the incident record

Create a reactive case record from in an incident, problem, or change record. Analyze the impact and generate cases for service issues.



Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER

About this task

Analyze the service issue in an incident, problem, or change record. Generate a reactive case for the service issue based on the insights from the customer impact tab.

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Select the list icon ()
3. Navigate to **All** > **Incidents** > **All**.
4. Open the incident record.
5. Select the **Customer impact** tab.
You can create reactive record only for the customer account.
6. Select the more option icon ()

7. Select **New reactive record** from the option list.
8. Enter the details for the new case record.
9. Select **Save**.

Result

A reactive case record is created and associated with the incident.

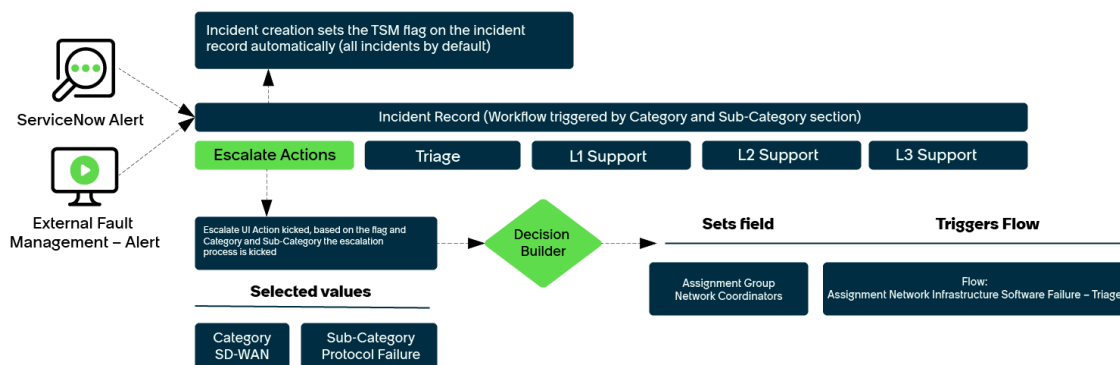
Related topics

[Enhancing customer impact visibility for PSEW processes](#)

About escalating incidents

An escalation can be triggered when an incident is created with the appropriate category and sub category and the **Escalate UI** option is triggered within the Service Operations Workspace.

The following diagram provides a visual representation of the escalation flow.



The following category and sub category values are available with the base system:

- Category: SD-WAN
- Sub category:
 - Link failure
 - Device failure
 - Protocol failure
 - Soft-WAN link failure
 - Software failure

The following values are available for the Stage field in the Incident table:

- Triage
- L1 investigation
- L2 investigation
- L3 investigation

Based on the defined conditions, such as current stage, category, and sub-category, the Incident Escalation Policy decision table determines the results and the next escalation stage if appropriate.

Incident Escalation Policy

Created: 2020-04-25 12:43:53 | Application: Telecom Core | Properties | Close

Inputs [Add](#)

Label	Type	Reference	Mandatory
Incident	Reference	Incident [incident]	<input checked="" type="checkbox"/>

[Add an input](#)

Decision table

Conditions			Results		
	Category <small>incident (incident * category)</small>	Subcategory <small>incident (incident * subcategory)</small>	Stage <small>incident (incident * sn_ind_tsm_core_stage)</small>	Assignment Group <small>Group [sys_user_group]</small>	Flow <small>Flow [sys_hub_flow]</small>
1	SD WAN	Software failure		Network Coordinators	Network Initiated Software Failure - Triage
2	SD WAN	Protocol failure	L1 Investigation	L2 Network Engineering	Network Initiated Protocol Failure - L2
3	SD WAN	Link failure		Network Coordinators	Network Initiated Link Failure - Triage
4	SD WAN	Device failure	L1 Investigation	L2 Network Engineering	Network Initiated Device Failure - L2
5	SD WAN	Link failure	Triage	L1 Network Engineering	Network Initiated Link Failure - L1
6	SD WAN	Protocol failure	L2 Investigation	L3 Network Engineering	Network Initiated Protocol Failure - L3
7	SD WAN	Device failure	Triage	L1 Network Engineering	Network Initiated Device Failure - L1
8	SD WAN	Software failure	Triage	L1 Network Engineering	Network Initiated Software Failure - L1
9	SD WAN	Software failure	L2 Investigation	L3 Network Engineering	Network Initiated Software Failure - L3
10	SD WAN	Soft-WAN link failure		Network Coordinators	Network Initiated Soft-WAN Link Failure - Triage
11	SD WAN	Protocol failure	Triage	L1 Network Engineering	Network Initiated Protocol Failure - L1
12	SD WAN	Software failure	L1 Investigation	L2 Network Engineering	Network Initiated Software Failure - L2
13	SD WAN	Device failure	L2 Investigation	L3 Network Engineering	Network Initiated Device Failure - L3
14	SD WAN	Soft-WAN link failure	L1 Investigation	L2 Network Engineering	Network Initiated Soft-WAN Link Failure - L2

The decision table is provided with the Proactive Service Experience Workflows application. You can modify the conditions that have been defined, and the results to suit your requirements. For more details on updating decision tables, see [Decision Tables](#).

When an incident is escalated, the status of the Needs attention field is updated to **True**. The status can be changed to **False** by the owner of the Assignment Group field.

Note: As a system administrator, you can configure the **Set Needs Attention False** business rule.

Escalate an incident in Proactive Service Experience Workflows

Escalate an incident to continue the investigation and diagnosis of that incident. By escalating an incident, you can ask for help from a more-experienced resource so that the issue is resolved more quickly.

Before you begin

This task assumes that you have been working on an incident and you must escalate it to the next escalation group.

Note: Be sure that the administrator has assigned this role to the escalation groups. For information about how administrators assign roles, see [Assign a role to a group](#).

Role required: sn_ind_tsm_core.noc_agent

Procedure

1. In the *Service Operations Workspace*, navigate to **List > Incidents > Open** and select an incident.
2. On the incident record form, from the drop-down list at the top-right corner, select **Escalate**.
3. In the Capture notes for the escalation pop-up window, enter a descriptive note and select **Escalate**.
This action triggers the subflow for the next level of escalation group, and the Assignment Group automatically changes to the next escalation group.

Result

- The state of the incident task for the previous engineer is set to Closed Complete and the work note is logged.
- An incident task is created for the newly assigned user with the state set to Work in Progress.
- A work note in the activity stream provides instructions for the engineer at this level of escalation.
- The incident Stage is updated with the next escalation level.
- The Assignment Group is updated according to the escalation level.

Reviewing customer or partner accounts in Proactive Service Experience Workflows

Learn how your Technical Support teams (e.g. Cloud Ops, Server, or Network operations teams) can use the Operations Account 360 view in the Proactive Service Experience Workflows application to get insight about your customer's or partner's accounts.

As a technical support agent, you can collect information related to tasks, escalations, key customer data, and metrics associated with your customer's or partner's accounts in the Service Operations Workspace. With this data, you can track the following types of information:

- Who the customer or partner is and what products, services, assets, and configuration items have been sold to them.
- Who the key contacts are for both for the technology provider and customer or partner.
- What CSAT score is for the technology provider and customer or partner.
- How the technology provider and customer or partner are tracking from an SLA perspective for the month.
- What major incidents, cases, and escalations are affecting the accounts.
- How many tasks are being closed, by type, and how many are being opened on a rolling 12-week basis.
- Specific knowledge articles and catalog items developed for the account. With this information, your agents can gain the insights into what the customer or partner wants and what actions need to be taken.

The data visualized inside of Operations Account 360 view inside of Service Operations Workspace is derived from task records where the company value equals to the account selected when this view is launched. Knowledge Articles and Catalog Items are exception to this as.

Additionally, the Operations Account 360 View only works for company records with the class value equals to account. Company records with the class value of company shows the traditional default workspace view of Service Operations Workspace.

To learn more about getting the account insights, see [Review an account by using the 360 View in Proactive Service Experience Workflows](#).

To learn more about Analytics dashboards, see [Service delivery overview](#).

Review an account by using the 360 View in Proactive Service Experience Workflows

Review a customer or partner's account by using the Operations Account 360 view provided by the Proactive Service Experience Workflows application inside of Service Operations Workspace. You can track your data and tasks related to customer's or partner's and then take action to improve your delivery of service.

Before you begin

Role required: sn_ind_tsm_core_noc_agent

Procedure

1. Navigate to **Workspaces > Service Operations Workspace**.
2. From the Service Operations Workspace **Lists** tab, click **Accounts > All**.
3. In the Accounts list, select a customer account.

i Note: You can also access this view by clicking a company (account) name account inside the various incident lists or within the incident form in Service Operations Workspace.

4. In the Account Information page, in the Customer Summary section, review the general customer details for the selected account, such as Active status of the customer, Rank tier, and the number of employees.

If this account has any escalations, you can view it by clicking **View Escalations**. In the Overview section, view the insights into account information.

Account Information page - Account Overview tab

Field	Description
Account Team Members	Team members of this customer. Click View all to see the list of all the team members.
Key Customer Contacts	Important contacts of this customer. Click View all to see the list of all the key customer contacts.
Single Score Cards	<ul style="list-style-type: none"> ○ Contracts ○ Entitlements ○ CSAT <p>i Note: Results are from the assessments tied to the out-of-the-box Customer Satisfaction Survey provided by the Core CSM plugin.</p> <ul style="list-style-type: none"> ○ Escalation Cases ○ Sold Products ○ Install Base ○ Assets ○ Configuration Items
On-going Technical Support Work	<ul style="list-style-type: none"> ○ Closed Tasks ○ Weekly New Tasks vs Closed Tasks ○ Current Month Task SLA Achievement
Changes	Change requests raised by your account
Problems	Problems related to the account

Field	Description
Incidents	Incidents related to the account
Incidents SLA	Incident SLAs related to the account
Outages	Outages related to the account
Requests	Requests related to the account
Cases	Cases related to the account
Contextual Side-panel	<ul style="list-style-type: none"> ○ Attachments ○ Templates ○ Account Assist <p>Note:</p> <p>You can also search for Major Incidents, Major Cases, Knowledge, Articles, or Catalog Items.</p>

5. In the Related Records page, the default lists provided are:

- Users
- Contacts
- Account Addresses
- Product Models
- Vendor Catalog Items

Service delivery overview

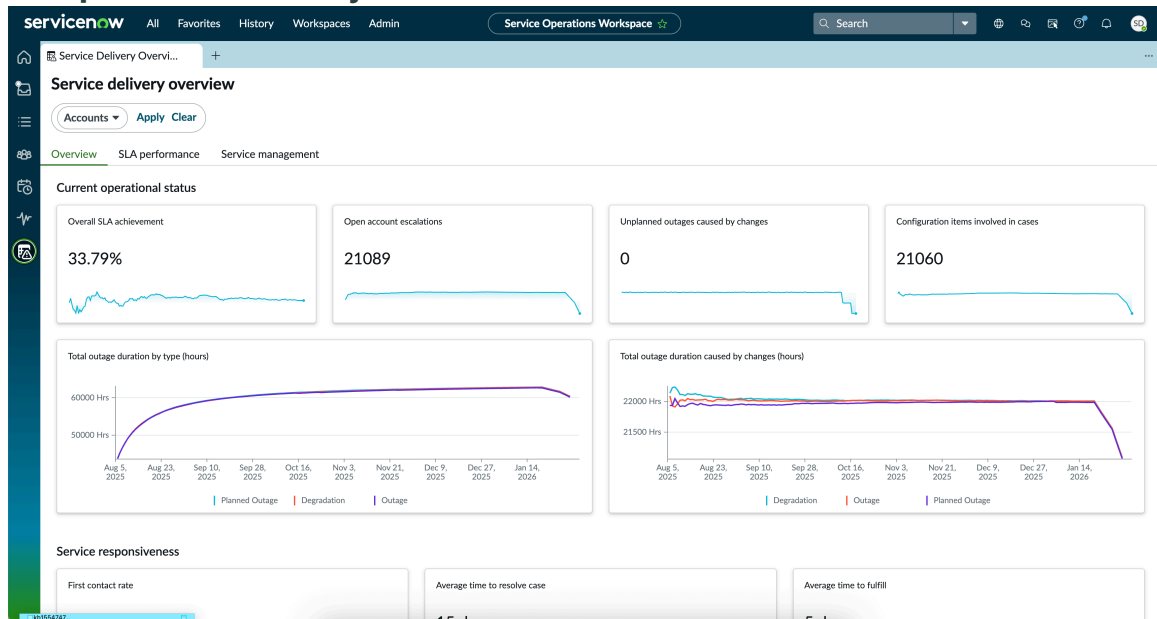
Use the Service delivery overview to view the Analytics dashboards of the customer accounts. You can explore the details about the operational status of the accounts.

Service delivery overview displays the Analytics dashboards of the customer accounts. These dashboards contains diagrams, charts, and summary data on metrics such as proactive cases, account escalations, Service Level Agreements (SLAs), Core Key Performance Index (KPI), and so on.

The Service delivery overview contains the following tabs for each dashboard.

- Overview
- SLA performance
- Service Management

Example of Service delivery overview



Access

You can access the Service delivery overview page as follows:

1. Navigate to **Workspaces > Service Operations Workspace** or **CSM/FSM Configurable Workspace**.
2. Select the service delivery overview (📊) icon.

Account selection

Select **Accounts**, and then select the customer account that you want to view the data. You can also select more than one account.

Overview tab

The Overview tab provides a comprehensive overview of key performance metrics and service-related indicators, presenting essential data at a glance.

Overview indicators

Indicator	Description
Overall SLA achievement	Total percentage of SLAs met out of the total number of SLAs.
Open account escalations	Total number of account-related issues that have been escalated and are currently unresolved.
Unplanned outages caused by changes	Total number of outages classified as Outage with task numbers labeled as Change type.
Configuration items involved in cases	Total number of configuration items (CI) involved in cases.
Total outage duration by type (hours)	Sum of the total duration of outages, categorized by their types. This visualization

Overview indicators (continued)

Indicator	Description
	helps which types of outages are most frequent or have the longest durations, enabling targeted improvements and resource allocation.
Total outage duration caused by changes (hours)	Total duration of all outages associated with tasks identified by a task number starting with CHG.
First contact rate	Percentage of customer inquiries or issues that are resolved during the first interaction with a service or support team.
Average time to resolve case	Average amount of time taken to resolve a case from the moment it's opened until it's officially closed.
Average time to fulfill	Average duration taken to fulfill a request from the time it's initiated until it's fully completed or closed.
Percent of cases created proactively	Percentage of customer service or support cases that were initiated proactively by the organization itself, rather than in response to customer inquiries or complaints.
Proactive cases by incident	Number of cases where the proactive field is set to true and the Caused by Incident field is populated.
Proactive cases by change	Number of cases where the proactive field is set to true and the Caused by Change field is populated.
Major cases triggered by incident	Number of cases where the proactive field is set to true and the Incident field is populated.
Number of missed major case record SLAs	All breached SLAs associated with tasks labeled as Case and having an Accepted status in the major case state.

SLA performance tab

The SLA performance tab displays metrics that provide you with a summary of the effectiveness with which the managed services adhere to their SLAs.

SLA performance indicators

Indicator	Description
Team overdue SLAs	Total number of SLAs marked as breached within a specific team, filtered based on the assignment groups linked to the logged-in user.
Team opened SLAs	Total number of SLAs that are either in progress or paused, specific to a team and

SLA performance indicators (continued)

Indicator	Description
	filtered according to the assignment groups of the logged-in user.
Team SLA analysis achieved	Percentage of SLAs successfully met by a specific team. The data is filtered based on the assignment groups to which the logged-in user belongs to.
Team SLAs expiring today	Total number of SLAs within a specific team scheduled to reach their deadline or expire today, filtered based on the assignment groups linked to the logged-in user.
Team average SLAs age	Average duration between start time and end time for all SLAs marked as achieved or completed within a specific team, filtered by the assignment groups associated with the logged-in user.
Team SLA analysis breached	Percentage of SLAs that weren't met by a specific team. The data is filtered based on the assignment groups to which the logged-in user belongs to.
Overdue SLAs	Number of open SLAs with the Has breached field activated.
Opened SLAs	Total number of SLAs that are in In progress or paused state.
Overall SLA analysis achieved	Percentage of SLAs that have been successfully met by a service provider.
SLAs expiring today	Number of SLAs that are scheduled to reach their deadline or expiration on the current day.
Average SLAs age	Average time span from start time to end time for all SLAs that are marked as either achieved or completed.
Overall SLA analysis breached	Percentage of SLAs that weren't met by a service provider. It assesses the instances where the agreed-upon time lines outlined in the SLAs were violated.

Service management tab

The Service management tab provides metrics that deliver actionable insights, enabling you to track and enhance the efficiency and quality of your services.

Service management indicators

Items not updated in last 5 days	Gauge chart grouping of requests marked as New, In Progress, or On Hold, that haven't received any updates or modifications within the past five days.
----------------------------------	--

Service management indicators (continued)

Items not updated for 7+ days	Gauge chart grouping of requests that aren't updated for more than seven days.
Incident reopen rate	Percentage of incidents that were initially marked as resolved but later required reopening due to unresolved issues or the emergence of related problems.
Average re-assignment count for resolved incidents	Average number of times an incident is reassigned to different team members or teams before it's finally resolved.
Average active case age	Average duration that cases remain open or active before they're resolved or closed.
Problems created by case	All problems initially reported with the task type labeled as Case.
Problems created by incident	All problems initially reported with the task type labeled as Incident.
Preferred channel used for communication	Sum of the total number channels used for communication, categorized by the type of channel. This visualization helps which types of channels are most used or have the longest durations.

User roles

User roles and description

User role	Description
sn_ind_tsm_sdwan.PSEW_USER	Can view and edit the dashboard and manage users, groups, and roles for the dashboard.

Auto-creation of cases and updates from incidents

Cases are created from the incidents.

A case is designated as a major case based on the value specified in the `major_case_affected_account_threshold` system property. This value can be modified by the administrator.

For more information to generate proactive cases, see [Redirection to the right case type](#).

Depending on the threshold value, different flows are triggered to either create one major incident, or several individual cases. The case record is then populated. For example, in minor case scenarios, the following information is populated:

- Short description
- Description
- Proactive is true
- Channel

- Incident
- Account field

The administrator can specify the fields that must be passed to the case records from the parent incident record to suit their business needs.

Setting major case threshold for auto generated cases

Set the threshold value for major cases generated from incidents in the system properties.

Before you begin

- Role required: admin
- Selected application scope: Proactive Service Experience Workflows

About this task

A default threshold value has been predefined to generate major cases from incidents. This value may be too low or your organization may not be using the CSM major case management feature. In such cases, you can modify the threshold value in the system properties after the Proactive Service Experience Workflows has been enabled.

Procedure

1. In the Application Navigator, type, `sys_properties.list`.
2. Search in the text field for `major_case_affected_threshold` system property.
3. Click the system property to open the record.
4. Change the threshold number in the Value field.

Note: The lower the integer value, the higher number of cases needed to trigger a major case. If a higher number is specified, the inverse is true.

5. Click **Update**.

Redirection to the right case type

Create a proactive case from an incident in the Proactive Service Experience Workflows.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > Workspaces > Service Operations Workspace**.
2. In Service Operations Workspace, navigate to **List > Incidents > All**.
3. Select the incident from the list.
4. In the **Overview** tab, expand the **Impact** section.
5. Select a **Cases** tile.
6. Select the **Generate Proactive Cases** button.
7. Select the appropriate service definition from the list.

Note: The fibre broadband service definition as been shipped as a part of the demo data.

For more information about service definition, see [Service definitions](#).

8. Select the Recommended Services.

The **Recommended Services** shows the service definitions that are linked to the **Impacted Services/CIs**.

For more information about how to create record producer, see [Record Producer](#).

9. Select Create proactive cases.

Diagnose and resolve a change request

As a customer service agent, review, diagnose, resolve, and close a change request for the service-related issue experienced by the customer.

Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER

About this task

The change request progresses through several stages from start to closure. It begins with a PSEW user reviewing and verifying the problem. Next is the diagnosis tab, where system-specified tests are executed to identify the root cause. After the tests, the agent moves to the repair, creating a task to fix the identified issue. The PSEW user follows the instructions in the repair task to address the problem areas. Once the repair is complete, the change request is retested to confirm that the issue is resolved. Finally, the change request is resolved and closed based on the customer's feedback on the provided solution.

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Select the List icon.
3. Navigate to **Changes** > **Assigned to me**.
4. Open the change request that is in the New or Open state.
5. Review and verify the change request.
 - a. In the **Overview** tab, expand the **Summary**, and then review and verify the general details for the change request.
 - b. Expand the **Scope and impact** and review the remaining details of the change request.


Scope and impact

Activity	Description
Affected CIs	Shows the affected configuration items (CIs).
Impacted Services/CIs	Shows the impacted services.
Assets	Shows the assets
Affected Accounts	Shows the affected accounts.
Affected Consumers	Shows the affected consumers
Cases	Shows the cases

- c. Expand **Assignment** to view the details.
- d. Expand **Schedule** to view the schedule.
- e. Expand **Risk evaluation** to view the risks.
- f. Expand **Change task** to view the details.

The change request moves to the Diagnose stage.

6. Diagnose the change request to identify the root-cause of the problem.

The decision table can be configured to control the visibility of the Diagnose and Run Diagnostics contextual panel tabs. For more information about decision tables, see [Decision Tables](#) .

- a. To generate the test results, select **Run diagnostics** from the contextual panel.
- b. In the run diagnostics panel, select **CI/Service** from the drop-down list.

The drop-down list shows the configuration item and Affected CIs.

To set up test definitions, see [Setting up test definitions](#) .

- c. Expand the cards in the **Available test suite**.
To set up test group, see [Setting up a test group](#) .

- d. In the manual test, select single/multiple tests.
In the automated test, selection of test isn't available. The subflow that is configured for the test group would be invoked.

- e. Select **Configure**.

- f. In the Configure tests, fill the test required characteristics form to activate the **Run test** button.


- g. **Optional:** In the test, select an option either to **Run test** now or to **Schedule test** for later.

- h. Select **Run test**.

- i. In the diagnose tab **Test results** section, select **Refresh list**  icon.

- j. In the diagnose tab, expand the **Test results** and review the results of the tests conducted in the previous step, checking whether each test is passed or failed.

The failed tests indicate that the issues causing the change request to be identified and need repair.

The maximum number of rows to the group is limited to 20 rows. To configure the maximum number of rows more than 20 rows to the group, see [Presentational List Usage](#) .

- k. **Optional:** Select the **View Details**  icon for a specific test result to review its details.

I. Optional: Select the **Rerun test**  icon for a specific test result to run it again.

m. Select **Continue**.

7. Repair the change request by creating a new or automated repair task.

- Select **Generate automated task** to automatically create a repair task.
- Select **Create repair task** to manually create a customize repair task.

A Repair task is created for all failed test cases related to the diagnosed change request.

a. Select the repair task that you want to work on.

b. In the Resolution task form, review the task details to identify the failed test and then work on those tests to fix the case.

c. In the **Select** field, select an appropriate state from the list to update or close the repair task, such as Closed complete.

d. Select **Save** and close the resolution task.

e. Select **Continue**.

8. Review the details of the change request in the **Details** tab.

9. View the **Change tasks** tab.

10. View the change request records in the **Related records** tab.

Create a case from a change request

Create a case from a change request in Proactive Service Experience Workflows so that you can notify your customers about a service outage and its resolution after the change implementation is complete.

Before you begin

A change in workflow has been triggered. An assignment group with the planned start and end dates have already been set.

Role required: admin

About this task

After a change in workflow Proactive Service Experience Workflows is triggered, you can identify the customers and systems that are affected by the change request. You can then either automatically create the individual cases for the impacted customers or notify your customers about the outages.

Procedure

- 1.** In *Service Operations Workspace*, navigate to **List > Changes > Open** and select a change record.
- 2. Optional:** In an existing change record, assign the change request to a support engineer.
- 3.** Expand the Scope and impact section and select the **Affected CIs** card.
- 4.** See which services are impacted by selecting the **Impacted Services/CIs** card and then selecting **Refresh Impacted Services**.

The instance initiates an action to refresh the impacted services and to find the affected accounts.

- 5.** See the list of outages by selecting the **Outages** card.

6. See which accounts are affected in the Customer impact tab.
7. See which consumers have been affected in the Customer impact tab.
8. In the Details section, change the state of the Change record to **Authorize**.
The cases for the affected customers are automatically created.
9. When the change manager authorizes the change record and the status changes to **Scheduled**, you can update the state by selecting **Implement**, selecting **Review**, and then saving the record.
10. Select the resolution code from the drop-down list, enter the resolution notes before closing the change request, and update the state by selecting **Close**.

Related topics

[About identifying affected accounts with Proactive Service Experience Workflows in Incident Management](#)

About messages used in escalation workflows in Proactive Service Experience Workflows

Multiple messages that are used within the incident escalation flows are available with the base Proactive Service Experience Workflows application.

These messages provide instructions to technical support engineers to troubleshoot, escalate, and resolve incidents. The ones provided with the base system address common network initiated incidents, but can be modified for your troubleshooting processes.

Customize message files for Proactive Service Experience Workflows

Customize the messages that provide instructions to the network engineers that are working on network-initiated issues for different subcategories, levels of escalation, and personas in Proactive Service Experience Workflows.

Before you begin

Role required: admin

About this task

Each subflow in Proactive Service Experience Workflows references a message file that provides instructions for agents to use to troubleshoot, escalate, and resolve network-initiated incidents. You can use the default message text, or customize the text for your internal troubleshooting processes.

Procedure

1. Navigate to **All > System UI > Messages**.
2. Search for key values that contain `sd_wan`.
3. Select the record with the text that you want to customize.
4. In the **Message** field, provide instructions for that subflow's subcategory, persona, and level of escalation.
5. Select **Update**.

Diagnose and resolve an incident

As a customer service agent, review, diagnose, and resolve, and close an incident for the service-related issue experienced by the customer.

Before you begin

Role required: sn_ind_tsm_sdwan.PSEW_USER

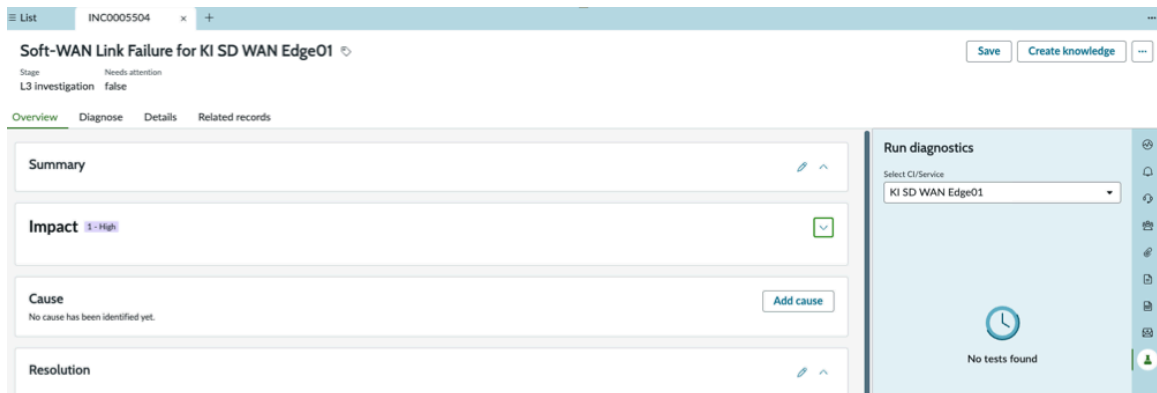
About this task

The incident progresses through several stages from start to closure. It begins with a PSEW user reviewing and verifying the problem. Next is the diagnosis tab, where system-specified tests are executed to identify the root cause. After the tests, the PSEW user moves to the repair, creating a task to fix the identified issue. The agent follows the instructions in the repair task to address the problem areas. Once the repair is complete, the service is retested to confirm that the issue is resolved. Finally, the incident is resolved and closed based on the customer's feedback on the provided solution.

Procedure

1. Navigate to **Workspaces** > *Service Operations Workspace*.
2. Select the List icon.
3. Navigate to **Incidents** > **Assigned to you**.
4. Open an incident that is in the New or Open state.
5. Review and verify the incident.

- a. In the **Overview** tab, expand **Summary**, and then review and verify the general details for the incident.




- b. Expand **Impact** and review the remaining details of the incident.




Impact

Activity	Description
Affected CIs	Shows the affected configuration items (CIs).
Impacted Services/CIs	Shows the impacted services.
Assets	Shows the assets
Affected Accounts	Shows the affected accounts.
Affected Consumers	Shows the affected consumers
Cases	Shows the cases




- c. Expand **Cause**.

- d. Expand **Resolution**.
 - e. Select **Continue**.
6. Diagnose the incident to identify the root-cause of the problem.

The decision table can be configured to control the visibility of the Diagnose and Run Diagnostics contextual panel tabs. For more information about decision tables, see [Decision Tables](#) .

- a. To generate the test results, select **Run diagnostics** from the contextual panel.
- b. In the run diagnostics panel, select **CI/Service** from the drop-down list.
The drop-down list shows the configuration item and Affected CIs.
- c. Expand the cards in the **Available test suite**.
To setup test definitions, see [Setting up test definitions](#) .
To setup test group, see [Setting up a test group](#) .
- d. In the manual test, select single/multiple tests.
In the automated test, selection of test isn't available. The subflow that is configured for the test group would be invoked.
- e. Select **Configure**.
- f. In the Configure tests, fill the test mandatory characteristics form to activate the **Run test** button.
- g. **Optional:** In the test, select an option either to **Run test** now or to **Schedule test** for later.
- h. Select **Run test**.
- i. In the diagnose tab **Test results** section, select **Refresh list**  icon.
- j. In the diagnose tab, expand the **Test results** and review the results of the tests conducted in the previous step, checking whether each test is passed or failed.

The failed tests indicate that the issues causing the incident to be identified and need repair.

The maximum number of rows to the group is limited to 20 rows. To configure the maximum number of rows more than 20 rows to the group, see [Presentational List Usage](#) .
- k. **Optional:** Select the **View Details**  icon for a specific test result to review its details.
- l. **Optional:** Select the **Rerun test**  icon for a specific test result to run it again.
- m. Select **Continue**.

7. Repair the incident by creating a new or automated repair task.

- Select **Generate automated task** to automatically create a repair task.
 - Select **Create repair task** to manually create a customize repair task.
- A Repair task is created for all failed test cases related to the diagnosed incident.

a. Select the repair task that you want to work on.

b. In the Resolution task form, review the task details to identify the failed test and then work on those tests to fix the incident.

c. In the **Select** field, select an appropriate state from the list to update or close the repair task, such as Closed complete.

d. Select **Save** and close the resolution task.

e. Select **Continue**.

8. Review the details of the incident in the **Details tab.**

9. View the incident-related records in the **Related records tab.**

Run diagnostics tests for a CI or a service

As a customer service agent, review, diagnose, resolve, and close a service case for the service-related issue experienced by the customer.

Before you begin

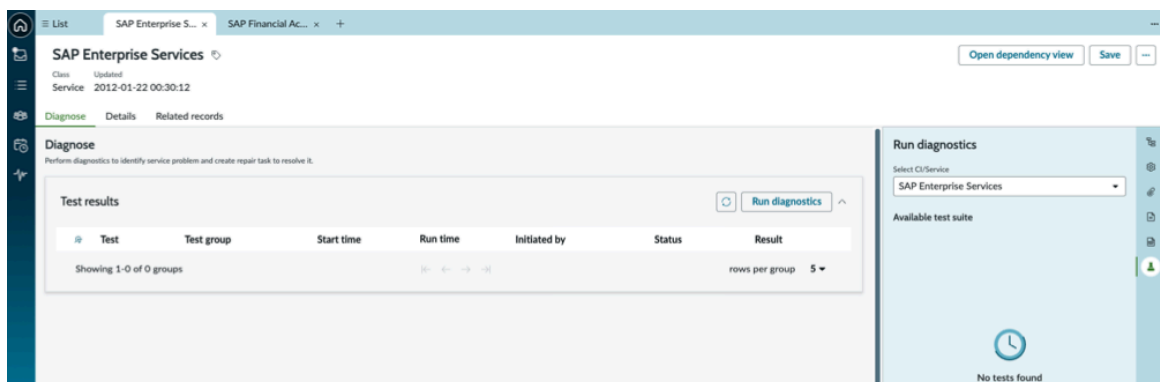
Role required: admin

About this task


This task helps you to understand how to execute relevant preconfigured diagnostics tests for a specific CI or a service, without any incident or case. This helps the agents to test a CI or Service standalone. If any issues are found, resolution shall follow the standard process like incident or case as applicable. This task doesn't enable the agent to create any repair or diagnostic task, but only help to run the required test on the fly without any case or incident.



Procedure




- 1.** Navigate to **Workspaces > Service Operations Workspace**.
- 2.** Select the List icon.
- 3.** Navigate to **CMDB > Services**.
- 4.** Open a service that is in the New or Open state.



5. Diagnose the service to identify the root-cause of the problem.

The decision table can be configured to control the visibility of the Diagnose and Run Diagnostics contextual panel tabs. For more information about decision tables, see [Decision Tables](#) .

- a. To generate the test results, select **Run diagnostics** from the contextual panel.
 - b. In the run diagnostics panel, select **CI/Service** from the drop-down list.
The drop-down list shows the current product inventory and all the child inventories.
To set up test definitions, see [Setting up test definitions](#) .
 - c. Expand the cards in **Available test suite**.
To set up test group, see [Setting up a test group](#) .
 - d. In the manual test, select single/multiple tests.
In the automated test, selection of test isn't available. The subflow that is configured for the test group would be invoked.
 - e. Select **Configure**.
 - f. In the Configure tests, fill the test required characteristics form to activate the **Run test** button.
 - g. **Optional:** In the test, select an option either to **Run test** now or to **Schedule test** for later.
 - h. Select **Run test**.
 - i. In the diagnose tab, expand the **Test results** and review the results of the tests conducted in the previous step, checking whether each test is passed or failed.

The maximum number of rows to the group is limited to 20 rows. To configure the maximum number of rows more than 20 rows to the group, see [Presentational List Usage](#) .
 - j. **Optional:** Select the **View Details**  icon for a specific test result to review its details.
 - k. **Optional:** Select the **Rerun test**  icon for a specific test result to run it again.
 - l. Select **Continue**.
6. Review the details of the service in the **Details** tab.
 7. View the service-related records in the **Related records** tab.

Product Support for Technology reference

Reference topics provide additional information about Proactive Service Experience Workflows.

Domain separation and Proactive Service Experience Workflows

Domain separation is supported for Proactive Service Experience Workflows. With Proactive Service Experience Workflows, you can quickly restore normal service operation when network-

initiated incidents occur and proactively identify and notify the customers that are impacted by those incidents. 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

- Includes **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 configure the minimum viable product (MVP) business logic and data parameters 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](#) .

Overview of Proactive Service Experience Workflows

Proactive Service Experience Workflows (TAW) is a series of workflows that enhance the Incident Management application and its integration with customer workflow processes, such as Case Management and Field Service Management. That means that Proactive Service Experience Workflows doesn't require any additional domain separation support because the foundation applications already provide that support. To learn more, see [Product Support for Technology](#).

Related topics

[Domain separation for service providers](#) 

Affected customers list columns

Column details for the Affected customer section in a Customer tab.

Accounts tab

Column name	Description
Account	Name of the impacted customer account.
Contract value	Total contract value of the account.
Account escalated	Indicates whether the account has any proactive cases.
Reactive cases	Number of reactive cases associated with the impacted account.
Proactive record	Proactive case record that is associated with the account.
Communication sent	Indicates whether communication was sent to the customer regarding their issue.
Critical affected services	Number of affected services.
Major record	Major case record that is associated with the account.

Consumers tab

Column name	Description
Consumer	Name of the impacted consumer account.
Communication sent	Indicates whether communication was sent to the consumer regarding their issue.
Reactive cases	Number of reactive cases associated with the impacted consumer account.
Proactive case	Proactive case record that is associated with the consumer account.
Contract value	Total contract value of the consumer account.

Glossary Proactive Service Experience Workflows

Learn about the terms and concepts that are unique to Proactive Service Experience Workflows.

A

Glossary terms are grouped alphabetically.

assignment groups

Predefined groups of users responsible for different levels of incident management, such as Network Coordinators, L1 Network Engineering, L2 Network Engineering, and L3 Network Engineering.

C

Glossary terms are grouped alphabetically.

configuration item (CI)

A physical entity, such as a computer or router; a logical entity, such as an instance of a database; or a conceptual entity, such as a requisition service. CIs can be managed and tracked through Configuration Management and stored in the Configuration Management database (CMDB).

customer satisfaction (CSAT)

A metric that measures the satisfaction of customers with the service provided, often used to evaluate the performance of support teams.

D

Glossary terms are grouped alphabetically.

decision table

A table used to determine which subflow to generate at certain escalation points based on predefined conditions.

domain separation

A process to separate data, processes, and administrative tasks into logical groupings called domains. Admins can then control the information available to each domain, including which users can see and access the data. Typically used only in Multiple Service Provider (MSP) organizations.

E

Glossary terms are grouped alphabetically.

escalation

The process of moving an incident to a higher level of support for faster resolution. PSEW includes predefined stages of escalation: Triage, L1 investigation, L2 investigation, L3 investigation, and Resolution. To learn more, see [About escalating incidents](#).

H

Glossary terms are grouped alphabetically.

hermes kafka

A messaging service used to publish outbound notifications to external systems, particularly for cloud customers. To learn more, see [Producing outbound API notifications using Hermes](#).

I

Glossary terms are grouped alphabetically.

incident

A record that documents a disruption or potential disruption to a service.

K

Glossary terms are grouped alphabetically.

KPI

KPI can be a synonym for indicator, or it can refer to a unique combination of an indicator with specific breakdown elements.

M

Glossary terms are grouped alphabetically.

major case

A case that contains information about an issue that impacts multiple customers, like a system-wide outage. A major case is not associated with any accounts, contacts, or consumers. Any customer-specific information is in the associated child cases. A major case is also called a parent case.

O

Glossary terms are grouped alphabetically.

operations account 360

A view within the Service Operations Workspace that provides a comprehensive overview of a customer's or partner's account, including key contacts, products, services, and performance metrics. To learn more, see [Service delivery overview](#).

open message bus

A message-bus agnostic framework that supports publishing notifications to any open message bus, suitable for both cloud and on-premise customers.

P

Glossary terms are grouped alphabetically.

proactive case

A case automatically generated to proactively notify and address impacted customers before they report an issue.

S

Glossary terms are grouped alphabetically.

service level agreement (SLA)

An agreement that specifies the time period that a service must be provided within. SLA definitions are configured to include the necessary information to create and manage SLAs for customer service cases.

service operations workspace

A dedicated workspace within ServiceNow where technical support agents can manage and resolve incidents, view affected accounts, and communicate with customers.

T

Glossary terms are grouped alphabetically.

TMF 621 rest API

A standard API that is used to create incident records from external systems, enabling integration with network management systems. To learn more, see [Trouble Ticket Open API](#).

trouble ticket notification

A feature that sends notifications to third-party systems about incidents or cases created in ServiceNow, either reactively or proactively. To learn more, see [Exploring API Notification Management](#).

W

Glossary terms are grouped alphabetically.

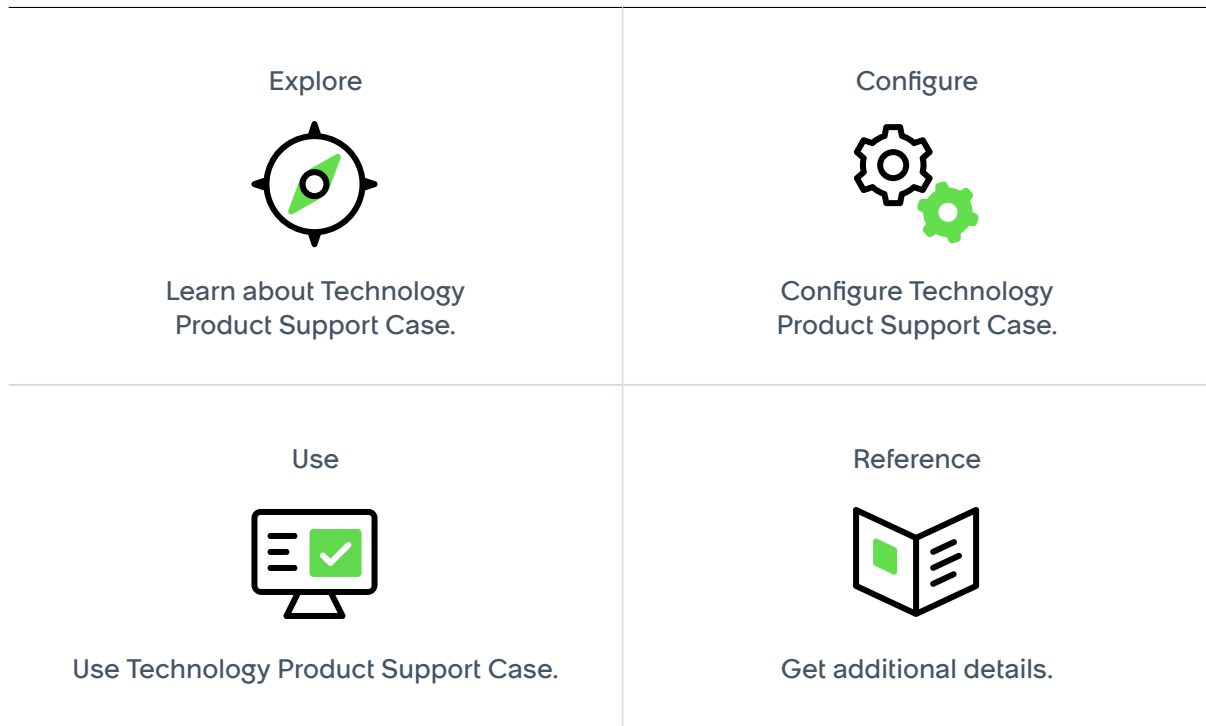
workflow studio

A tool used to create and modify workflows, including subflows for different assignment groups and levels of escalation.

Technology Product Support Case

Use the Technology Product Support Case feature to manage and resolve customer issues for digital products and services through guided playbooks and service portal.

Get started



Exploring Technology Product Support Case

The Technology Product Support Case feature in the Product Support for Technology application enables technology companies to provide support for digital products and services.

The Technology Product Support Case application includes the following features:

- A case type dedicated to technology product support case needs.
- A record page and a playbook experience for CSM Configurable Workspace that agents can use to research and resolve customer issues.
- A portal experience that agents and customers can use to report issues and communicate with each other.

Technology Product Support Case application features

Feature	Description
Case type	The Technology Product Support case type includes the tables, roles, SLAs, and other processes and data needed to resolve technology issues.
Record page	The Technology Product Support record page provides a simplified case view that enables agents to research and resolve technology cases.
Playbook	The Technology Product Support process page includes a playbook that provides step-by-step guidance for resolving technology cases. This playbook guides agents through the case flow and provides the contextual information to complete each stage and the associated activities.

Technology Product Support Case application features (continued)


Feature	Description
Playbook stages and activities	The Technology Product Support playbook includes stages and activities that assist agents in researching and resolving technology cases.
Record producer	The Technology Product Support Case application includes a record producer that customers can use to create cases from the Customer Service Portal.

Activation information

To learn more about how to install and configure Technology Product Support Case application, see [Configuring Product Support for Technology](#).

Technology Product Support case type

The Technology Product Support case type enables technology companies to provide support for digital products and services.

A [case types](#)  represents the processes and the data that are needed to resolve a specific type of customer issue. The Technology Product Support case type includes the table, roles, SLAs, email notifications, and other items needed to resolve technology issues.

The Technology Product Support Case application (sn_tech_product_support) includes the Technology Product Support case type. To view a list of available case types, navigate to **Customer Service > Case Types > Manage Case Types**.

The Technology Product Support case type includes the following items.

Technology Product Support case type items

Item	Description
Tables	The Technology Product Support Case application includes the Tech Product Support Case [sn_tech_product_support_case] table. This table extends the Case table and can be extended. For a detailed description of the Tech Product Support Case table, including field descriptions, see Tech Product Support Case table .
Roles	Roles control access to features and capabilities in the Technology Product Support Case application, menu, and modules.
Case states	Technology product support cases follow a specific life cycle and move through a series of states from creation to closure.
State flows	State flows are customized transitions from one state to another, such as when an agent moves a technology product support case from Work in Progress to Awaiting Info.
List views	The Technology Product Support Case application includes list views for CSM/FSM Configurable Workspace and for Core UI that appear in the application navigator.

Technology Product Support case type items (continued)

Item	Description
Special handling notes	Special handling notes bring important information to an agent's attention.
Service definitions	Service definitions enable customers to quickly discover and request the services they need and agents to create cases of the right type to support those requests.
Email notifications and email templates	Email notifications are sent to the contact and, in some cases, to users on the case watch list for specific actions. The system uses email templates to create these notifications.
Provider notifications	Provider notifications for agents are sent following updates to technology product support cases.
Service level agreement (SLA) definitions	An SLA definition includes the timing, conditions, workflows, and other information required to create and progress task SLAs.
Record producer	A record producer is a specific type of catalog item that allows end users to create task-based records from a service catalog. The Technology Product Support Case application includes the following record producer: Create a Technology Product Case .
Case action status	The case action status feature enables agents to easily identify cases that need attention.
Field indicators and highlights	The Technology Product Support case type uses field indicators and field highlights to indicate information about cases.
Auto close cases	Cases in the Resolved state can be closed automatically if customers do not take any action.

Roles

User roles available with the Technology Product Support Case application address the diverse skill sets needed to resolve complex technical issues. These roles enable users to research technical issues, collaborate with development teams, and implement advanced troubleshooting techniques.

Technology Product Support Case application roles and descriptions

Role	Description	Contains roles
Customer [sn_tech_support.customer]	Users with this role: <ul style="list-style-type: none"> Can view technology product support cases in the Customer Service Portal. Have write access to the Steps to reproduce field. 	<ul style="list-style-type: none"> sn_customerservice.customer sn_tech_support.creator sn_tech_support.writer

Technology Product Support Case application roles and descriptions (continued)

Role	Description	Contains roles
Customer admin [sn_tech_support.customer_admin]	Users with this role: <ul style="list-style-type: none"> • Can view technology product support cases in the Customer Service Portal. • Have write access to the Steps to reproduce field. 	<ul style="list-style-type: none"> • sn_customerservice.customer_admin • sn_tech_support.creator • sn_tech_support.writer
Partner [sn_tech_support.partner]	Users with this role: <ul style="list-style-type: none"> • Can view technology product support cases in the Customer Service Portal. • Have write access to the Steps to reproduce field. 	<ul style="list-style-type: none"> • sn_customerservice.partner • sn_tech_support.creator • sn_tech_support.writer
Partner admin [sn_tech_support.partner_admin]	Users with this role: <ul style="list-style-type: none"> • Can view technology product support cases in the Customer Service Portal. • Have write access to the Steps to reproduce field. 	<ul style="list-style-type: none"> • sn_customerservice.partner_admin • sn_tech_support.creator • sn_tech_support.writer
Agent [sn_tech_support.agent]	An agent role for the Technology Product Support Case application.	<ul style="list-style-type: none"> • sn_customerservice_agent • sn_incident_write • sn_problem_write • sn_request_write • sn_change_write • sn_tech_support.writer • sn_tech_support.creator • sn_tech_support.navigation_menu
Creator [sn_tech_support.creator]	Users with this role can create technology product support cases.	
Developer [sn_tech_support.developer]	A developer role for the Technology Product Support Case application.	<ul style="list-style-type: none"> • sn_customerservice.case_task_agent • sn_incident_write • sn_problem_write • sn_request_write • sn_change_write

Technology Product Support Case application roles and descriptions (continued)

Role	Description	Contains roles
		<ul style="list-style-type: none"> • sn_tech_support.viewer • sn_tech_support.navigation_menu
Report viewer [sn_tech_support.report_viewer]	Provides report viewer access to Technology Product Support cases.	
Viewer [sn_tech_support.viewer]	Provides read-only access to technology product support cases.	
Writer [sn_tech_support.writer]	Provides write access to technology product support cases.	sn_tech_support.viewer
Major case manager [sn_tech_support.major_case_manager]	<p>Users with the major case manager role can:</p> <ul style="list-style-type: none"> • Create major cases • Approve or reject major case candidates • Add or remove child cases from major cases • Add or remove impacted accounts or consumers <p>For more information, see Major issue management overview.</p>	<ul style="list-style-type: none"> • sn_majorissue_mgt.major_issue_manager • sn_incident_write • sn_problem_write • sn_request_write • sn_change_write • sn_tech_support.writer • sn_tech_support.creator • sn_tech_support.navigation_menu
Resource manager [sn_tech_support.resource_manager]	Users with this role can assign technology product support cases to agents.	<ul style="list-style-type: none"> • sn_customerservice_agent • sn_incident_write • sn_problem_write • sn_request_write • sn_change_write • sn_tech_support.writer • sn_tech_support.creator • sn_tech_support.navigation_menu
Navigation menu [sn_tech_support.navigation_menu]	Provides access to the Technology Product Support Cases menu and modules in the application navigator.	

Case states

A Technology Product Support case can be in any of the following case states.

Technology Product Support case states

State	Description
Draft	A case that is being created but is not yet submitted.
New	A case moves from Draft to New when it is submitted or when the case intake is completed.
Work in Progress	An agent accepts an assigned case or selects the Assign to me action and sets the state to Work in Progress. If a customer rejects a proposed solution, the case returns to the Work in Progress state.
Awaiting Info	The agent requests additional information from the customer.
Solution Proposed	The agent proposes a solution to the customer.
Closed	The customer accepts the proposed solution or the agent selects the Close case action. The case can also be auto closed if there is no response from the customer within a specified amount of time. The case record is read-only when the state is Closed.
Cancelled	A case that has been cancelled by a user.

State flows

State flows are customized transitions from one state to another. State flows include triggers and can be configured to perform different actions during transitions to specific states.

From state	To state	Trigger
Draft	New	Agent actions: <ul style="list-style-type: none"> • Submit Case • Finish case intake
New	Work in Progress	Agent actions: <ul style="list-style-type: none"> • Assign to me: assigns the case to the logged in user. • Accept: AWA - assigns the case to the user who accepts.
New / Work in Progress	Awaiting Info	Selecting the Request Information action changes the state from New or Work in Progress to Awaiting Info.

From state	To state	Trigger
Awaiting Info	Work in Progress	The agent selects Information Received or the customer updates the case comments.
Work in Progress	Solution Proposed	The agent selects Propose Solution .
Solution Proposed	Work in Progress	The agent or customer selects Reject solution .
Solution Proposed	Closed	The agent or customer selects Accept Solution or the case is auto closed.

List views

The Technology Product Support Case application includes list views for CSM/FSM Configurable Workspace and for Core UI. These views are displayed in the application navigator.

Technology Product Support Case list views

User interface	Description
CSM/FSM Configurable Workspace	Technology Product Support Cases <ul style="list-style-type: none"> • Assigned to me • Work in Progress • Solution Proposed • Closed • Unassigned • Escalated • All
Core UI	Technology Product Support Cases <ul style="list-style-type: none"> • Draft • Work in Progress • Solution Proposed • Unassigned • Escalated • All

Special handling notes

Special handling notes bring important information to an agent's attention. You can configure special handling notes to appear based on one or more conditions, such as a specific account, contact, or product.

The Technology Product Support Case application includes a configuration for special handling notes. Navigate to **Special Handling Notes > Configuration** to view the configuration for the Tech

Product Support Case table [sn_tech_product_support_case]. This configuration includes the following related fields:

- Account
- Contact
- Product
- Install Base
- Assigned to

Users can create special handling notes by navigating to **Special Handling Notes > Special Handling Notes** and selecting **New**. For more information, see the following topics:

- [Special handling notes](#)
- [Configure special handling notes](#)
- [Create a special handling note](#)

Service definitions

The Technology Product Support Case application includes the following service definitions. These definitions belong to the Technology Support category and are associated with the Create a Technology Product Case catalog item.

- Question
- Service Request
- Something is Broken
- Performance Issue

For more information, see [Service definitions](#) and Service definition categories.

Email notifications and email templates

Email notifications are sent to the contact and, in some cases, to users on the case watch list for the following actions. The system uses email templates to create these notifications.

Email notifications and templates

Notification	Action	Email template
Tech Case opened for customer	An agent opens a case for a contact. The notification is sent to the contact and to users in the watch list.	case.opened.for.customer
Tech Case commented for customer	An agent adds a customer-visible comment to a case. The notification is sent to the contact and to users in the watch list.	case.commented.for.customer

Email notifications and templates (continued)

Notification	Action	Email template
Tech Case awaiting info for Customer	An agent requests more information for a case from the contact. The notification is sent to the contact and to users in the watch list.	tech.case.awaiting.info
Tech Case closed for customer	An agent closes a case. The notification is sent to the contact and to users in the watch list.	case.closed.for.customer
Tech Case cancelled for customer	An agent cancels a case. The notification is sent to the contact and to users in the watch list.	tech.case.cancelled
Tech Case solution accepted for customer	An agent accepts a solution on behalf of the customer. The notification is sent to the contact.	tech.case.solution.accepted.for.customer
Tech Case solution rejected for customer	An agent rejects a solution on behalf of the customer. The notification is sent to the contact.	tech.case.solution.rejected.for.customer
Tech Case resolved for customer	An agent resolves a case for a customer. The notification is sent to the contact.	case.resolved.for.customer
Tech Case resolved - customer_watchlist	An agent resolves a case for a customer. The notification is sent to the users in the watch list.	case.resolved.for.customer.watchlist

To access a list of email notifications, navigate to **System Notification > Email > Notifications**.

To access a list of email templates, navigate to **System Notification > Email > Templates**.

Provider notifications

Provider notifications for agents are sent on the following updates to technology product support cases. Notifications appear in the bell icon in the CSM Configurable Workspace header. To access a list of provider notifications, navigate to **System Notification > Provider > Notifications**.

Provider notifications

Case update	Notification
A case is assigned to an agent	Tech Case assigned to notification
Case comments or work notes are updated	Tech Case comments/notes added
The proposed solution is accepted or rejected	Tech Case solution accepted/rejected
The case is cancelled	Tech Case cancelled notification

SLA definitions

The Technology Product Support Case application includes the following SLA definitions.

Technology product support SLAs

SLA type	Description
First Response Time - P2 (8 Hours) First Response Time - P3-P4 (2 Days)	<p>The first response time is the time between the customer submitting a case and receiving a response.</p> <p>The first response time is defined by case priority.</p> <ul style="list-style-type: none"> • P2 cases: response time is 8 business hours. • P3 and P4 cases: response time is 2 business days. <p>This SLA is fulfilled when the customer receives a response in one of the following ways:</p> <ul style="list-style-type: none"> • The agent updates the First response field. • The agent posts a comment in the activity stream. • The agent uses the Compose Email action to send an email. <p>For the playbook experience, this SLA is fulfilled when the initial response is posted in the activity stream.</p>
Ongoing Response Time - P2 (8 Hours) Ongoing Response Time - P3-P4 (2 Days)	<p>The ongoing response time begins after the first response time SLA is fulfilled and continues until the agent sends the next update to the customer.</p> <p>The ongoing response time SLA is defined by case priority:</p> <ul style="list-style-type: none"> • P2: response time is 8 business hours. • P3 and P4: response time is 2 business days.

Technology product support SLAs (continued)

SLA type	Description
	<p>This SLA is fulfilled when the agent updates the additional comments in the activity stream. Once completed, the ongoing response SLA is reset and the default ongoing response is applied again.</p> <p>This SLA is paused when the case is in the Awaiting Info state and is restarted when the customer responds to the request for information.</p> <p>This SLA is stopped when the agent proposes a solution for a case. If the customer rejects the solution and the case moves back to work in progress, a new ORT SLA instance is started.</p>
<p>Case Resolution - P2 (14 days)</p> <p>Case Resolution - P3-P4 (28 days)</p>	<p>The resolution time is the maximum amount of time in which a customer can expect a solution to be provided. This is the time between the customer submitting a case and accepting a solution (or a case being automatically closed).</p> <p>The case resolution SLA is defined by case priority:</p> <ul style="list-style-type: none"> • P2: resolution time 14 days. • P3 and P4: resolution time is 28 days. <p>This SLA is paused when the case is in the Awaiting Info state and is restarted when the customer responds to the request for information.</p> <p>This SLA is stopped when the agent proposes a solution for a case. If the customer rejects the solution and the case moves back to work in progress, this SLA resumes.</p>

Record producer

The Technology Product Support Case application includes a record producer that customers can use to create cases from the Customer Service Portal. The **Create a Technology Product Case** record producer is available for users with the following roles:

- sn_tech_support.customer
- sn_tech_support.customer_admin

To create a case from the Customer Service Portal using this record producer:

- 1. Select Requests > Request Something.**
- 2. Select the Support category.**

3. Select the **Create a Technology Product Case** catalog item.
4. Fill in the fields on the record producer. For field definitions, see the [Create a Technology Product Case record producer fields table](#) below.
5. Select **Submit**.

The **Create a Technology Product Case** record producer includes the following fields.

Create a Technology Product Case record producer fields

Field	Description
Issue Type	Select the type of issue for the case: <ul style="list-style-type: none"> • Something is broken • Performance issue • Service request • Question
Account	Auto filled with the account of the logged-in user.
Contact	Auto filled with the name of the logged-in user.
Affected Instances	Add the affected instances to this list.
Sold Product	Select a product from the list of available products. This list includes the sold products for the logged-in user.
Product Component	Select a product component from the list of available product components.
Short Description	Provide a brief description of the issue.
Description of the issue	Provide a more detailed description of the issue.
Describe the Business Impact	Describe the impact that this issue is having on your business.
Steps to reproduce	Add the steps to reproduce the issue.
Contact Timezone	Displays the timezone of the user in the Contact field.
Add attachments	Add any attachments to the case.

Case action status

The case action status feature enables agents to easily identify cases that need attention. Visual indicators in the **Action status** column on case lists highlight case status.

- A blue indicator highlights cases that need attention, such as cases that have been updated by customers or internal users and are waiting for input or review.
- A red indicator highlights cases that are blocked, such as cases that have open related task records or are waiting for customer feedback.

In addition to the colored indicators, the **Action status** column also displays a brief status message, such as Needs Attention.

When a case is in the Awaiting Info state and the customer, or a customer contact who has access to the case, responds to the request for information:

- The **Action status** field is updated to Customer Responded.
- The **Needs attention** field is enabled.


For more information, see the following topics:

- [Case action status](#) 
- [Case action status](#)  (CSM Configurable Workspace)

Field indicators and highlights

The Technology Product Support case type uses field indicators and field highlights to indicate information about cases. These indicators and highlights appear on columns that are displayed in the list view.

Field indicators and highlights for technology product support cases

Column	Description
Priority	<p>The Priority field uses the following colors to highlight the case priority:</p> <ul style="list-style-type: none"> • Red: 1 - Critical • Orange: 2 - High • Purple: 3 - Moderate • Green: 4 - Low
Action status	<p>The Action status field uses the following colors to highlight the following actions:</p> <ul style="list-style-type: none"> • Red: Blocked internally: • Blue: Needs attention
State	<p>The State field uses the following colors to highlight the case state:</p> <ul style="list-style-type: none"> • Draft: Yellow • New: Green • Work in progress: Purple • Closed: Light green • Solution proposed: Gray
Escalated cases and accounts	<p>Field indicators and field highlights appear on the Short description field for escalated cases and on the Name field for escalated accounts.</p> <ul style="list-style-type: none"> • Red: High severity • Orange: Medium severity <p>For more information, see Case and account escalation .</p>

Automatically close technology product support cases

The Auto Close Resolved Cases feature is available with the technology product support case type. Cases in the Resolved state can be closed automatically if customers do not take any action.

Note: This feature is active by default.

A case can remain in the Resolved state for 10 days before it is automatically closed. System administrators can change this default value in the **Auto Close Resolved Cases** Flow Designer flow.

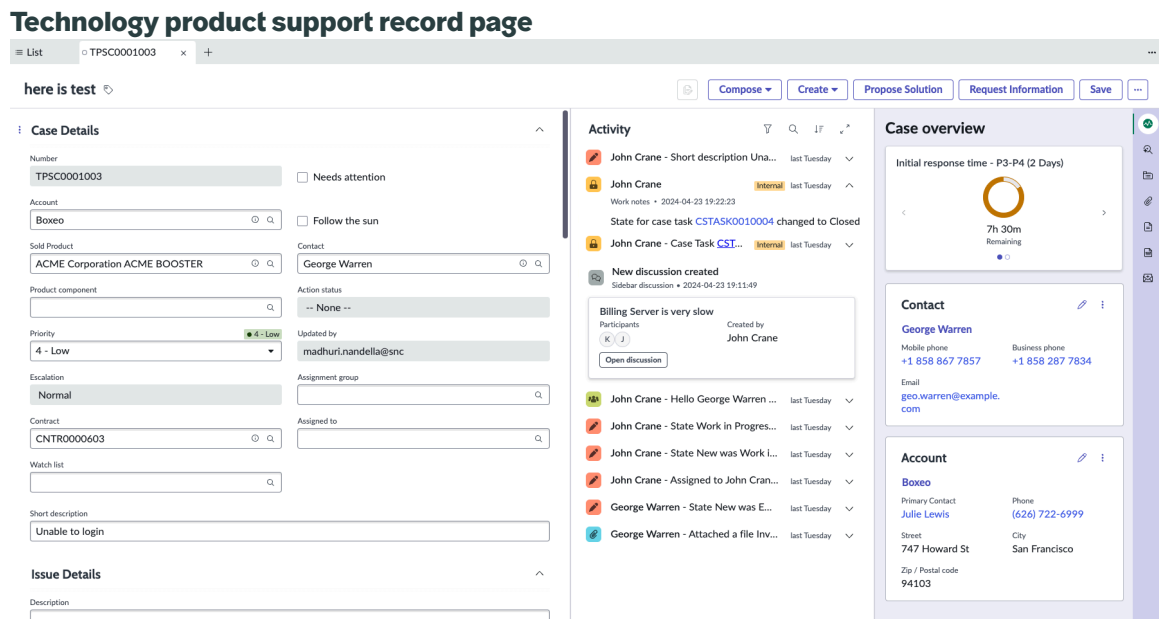
Customers receive the following notifications before a case is automatically closed:

- First notification: sent after 3 days
- Second notification: sent after 5 days
- Third notification: sent after 8 days

For more information, see [Automatically close customer service cases](#).

Technology Product Support record page

The Technology product support record page provides a simplified case view in CSM Configurable Workspace that enables agents to research and resolve technology cases.



The Technology product support record page focuses on the essential functionality that agents need:

- Looking up and verifying customer information
- Scanning the activity stream
- Viewing related information
- Searching for knowledge articles

The Technology product support record page is included with the Technology Product Support Case application (sn_tech_product_support).

Technology product support record page variant

The Technology product support record page variant is included with the Technology Product Support Case application. A page variant is a version of a page that has unique settings. This page variant includes the following settings.

Technology product support record page variant settings

Setting	Description
Active	<p>Enabling the Active check box makes the page variant available to the selected audience.</p> <p>The technology product support record page is active by default.</p> <p>The active setting combined with the page order determines the page that CSM Configurable Workspace uses to display record information. For more information, see Set record page order.</p>
Order	<p>Each record page has an order which indicates the page priority. The lower the number, the higher the priority.</p> <p>The default order for the Technology product support record page variant is -1000.</p>
Conditions	<p>Conditions determine when a page variant is displayed. The Technology product support record page has the following condition:</p> <p>table=sn_tech_product_support_case</p> <p>This condition limits the use of the page variant to records from the Tech Product Support Case [sn_tech_product_support_case] table.</p>
Audience	<p>The audience determines who can see the page variant. The Technology product support record page variant audience doesn't specify any user roles so all users can see this variant.</p>

To access the settings for this page variant:

1. Navigate to **All > Now Experience Framework > UI Builder**.
2. Select the **CSM/FSM Configurable Workspace** experience.
3. In the Record section of the Pages and variants list, select **Technology product support record page**.
4. Select **Settings** at the top of the page.

Technology product support record page components

The Technology product support record page includes the following components.

Technology product support record page components

Component	Description
Form heading	The form heading displays the case short description and also includes the action bar and record tags.
Record tags	Agents can create multiple tags for a record and then use the tags to group and organize records. For more information, see Tags .
Action bar	The action bar contains the actions available to users while working on case records. The specific actions are determined by factors such as the user role, case state, and other attributes.
Modeless dialogs	Modeless dialogs are windows that overlay the main window content. Agents can use these windows to create and post comments and work notes to the activity stream and to compose and send emails.
Account and contact lookup components	Agents can use the account and contact lookup components to do the following: <ul style="list-style-type: none"> • Search for an account or contact. • Create an account or contact. • Link or unlink an account or contact. • Edit and save a linked account or contact record. • Select a reference field on a lookup card, such as a contact name, to open the reference in a subtab. • Select an email address on a lookup card to open a draft email in the email composer in a subtab. • Select a phone number on a lookup card to call. <p>The account and contact lookup components display information in record cards. These cards display account and contact information and provide quick access to customer details such name, email, and phone.</p>
Workspace form view	The Workspace form view includes the following sections: <ul style="list-style-type: none"> • Case Details • Issue Details • Initial Response • Technical Action Plan • Other Case Details • Related Records • Notes • Closure Information <p>These sections can be expanded and collapsed to display the fields within each section.</p>

Technology product support record page components (continued)

Component	Description
	<p>The Workspace form view also includes a menu with additional form actions, such as personalizing the form, exporting data, and copying the URL.</p> <p>For more information about the fields that appear in these sections, see Tech Product Support Case table.</p>
<p>Case summarization component</p>	<p>The case summarization component appears above the activity stream. When an agent opens a case record, the component is collapsed and in the default state.</p> <p>Agents can use this component to do the following:</p> <ul style="list-style-type: none"> • Summarize case details. • Post the summary to the activity stream. • Refresh the summary. <p>Note: The case summarization component requires the Now Assist for Customer Service Management (CSM) application to be activated and configured.</p>
<p>Activity stream component</p>	<p>The activity stream component displays a list of activities occurring on a case record. This list can be collapsed to provide a quick view of case activities or expanded to provide more detail about individual activities.</p> <p>The Technology product support record page uses modeless dialogs for composing comments, work notes, and emails.</p>
<p>Contextual side panel</p>	<p>The contextual side panel component includes different tools that agents can use to research and resolve customer issues. The contextual side panel in the Technology product support record page includes the following tabs.</p> <ul style="list-style-type: none"> • Activity Stream • Recommended Actions search • Related Items • Attachments • Templates • Response Templates • Email Templates <p>For more information, see the following sections:</p> <ul style="list-style-type: none"> • Contextual side panel component • Recommended Actions search component • Related items component

Actions available in the action bar

The following actions are available on the Technology product support record page action bar. The specific actions that are available are determined by factors such as the user role, case state, and other attributes.

Technology product support record page actions

Action	Description
In-progress Actions	Provides a list of minimized modeless dialogs and includes a badge that displays the number of items in the list. From this list, an agent can select an item to open the minimized comment, work note, or email.
Submit Case	Moves the case from the Draft state to the New state.
Assign to me	Assigns the case to the logged-in user and moves the case to Work in Progress.
Accept	Assigns the case to the logged-in user and moves the case to Work in Progress.
Request Information	The agent requests information from the customer. Selecting this action moves the case state to Awaiting Information.
Information Received	The agent acknowledges that information was received from the customer. Selecting this action moves the case state to Work in Progress.
Propose Solution	The agent proposes a solution to the customer.
Accept Solution	The agent can accept the proposed solution on behalf of the customer. Selecting this action moves the case to Closed.
Reject Solution	The agent can reject the proposed solution on behalf of the customer. Moves the case to Work in Progress.
Save	Saves changes to the case record.
Cancel	Cancels changes to the case record.
Compose	Compose comments, work notes, and emails in modeless dialogs .
Create	Create records such as work orders, incidents, and requests.
More Actions	Perform additional actions such as proposing a major case or reporting a knowledge gap.

Modeless dialogs

The Technology product support record page uses modeless dialogs to create comments, work notes, and email messages. The following actions are available from the **Compose** button in the form header:

- **Compose > Comment:** Opens the Compose a comment modeless dialog.
- **Compose > Work note:** Opens the Compose a work note modeless dialog.
- **Compose > Email:** Opens the Compose email modeless dialog.

The following rules apply to modeless dialog visibility:

- One modeless dialog of each type (comment, work note, or email) can be active at a time.
- One modeless dialog can be displayed at a time while the other two are minimized.
- Minimized modeless dialogs appear in the In-progress Actions menu in the action bar. This menu displays a badge that shows the number of minimized modeless dialogs.
- If an agent opens a second modeless dialog while the first modeless dialog is displayed, the system minimizes the first modeless dialog.

Agents can do the following:

- Select the In-progress Actions menu to see a list of minimized modeless dialogs. Each entry in the list includes the title and category of the minimized item.
 - For email, the title is the email subject.
 - For comments and work notes, the title is the first line of text.
- Select an item from the list to open the minimized modeless dialog.

Closure behavior for comments, work notes, and email:

- Posting a comment or work note to the activity stream closes the modeless dialog.
- Saving the record posts a comment or work note to the activity stream and closes the modeless dialog.
- Sending an email closes the modeless dialog. The system adds the email to the activity stream and to the Emails related list.

Discard behavior for comments and work notes:

- Closing a work note or comment modeless dialog discards the text. The system displays a Close Dialog pop-up window and asks the agent to confirm the action.
 - Selecting **Continue** confirms the action, discards the text, and closes the window.
 - Selecting **Cancel** or the Close Dialog button cancels the action. The modeless dialog remains open and the text remains in the dialog.
- The text is discarded in the modeless dialog and on the form field.

Agents can use response templates from the contextual side panel to copy text into the modeless dialogs.

Agents can apply templates to emails in a modeless dialog:

- Select a template from the Email Templates tab in the contextual side panel and then select **Apply Template**. The contents of the template are added to the modeless dialog.
- If a modeless dialog is minimized, display the dialog before applying the template.

Agents can also toggle the **Rich text editor** button in the email modeless dialog to show or hide the TinyMCE formatter.

For more information, see [Modeless dialogs](#) .

Account and contact lookup components

The account and contact lookup components enable agents to do the following:

- Look up an account or contact by name, phone number, or email address. As the agent types characters in the search box, matching information appears in record cards below the search box.
- Select an account or contact after searching by selecting the desired record card. The selected record card replaces the lookup component.
- Create a new account or contact by selecting the **+** icon on the lookup component, filling in the fields for the account or contact, and selecting **Save**. A record card for the new account or contact replaces the lookup component.

Agents can perform the following actions from a record card:

- Remove a linked account or contact from a case record by selecting the more actions icon and then selecting **Unlink**. Then save the form to apply this change.
- Edit and save a linked account or contact record by selecting the pencil icon, editing the information for the account or contact, and selecting **Save**.
- Select a reference field on a lookup card to open the referenced record in a subtab.
- Select an email address on a lookup card to open the email composer in a subtab.
- Select a phone number on a lookup card to make a phone call.

Case summarization component

The case summarization component provides agents with a summary of a customer service case, including the issue and the actions taken. Agents can generate summaries to understand the case context and post summaries to the case work notes.



The case summarization component appears above the activity stream on the Technology product support record page variant. Upon first opening a case, the component is collapsed and in the default state.

Using this component, agents can:

- Select **Summarize** to create a summary of the case details.
- Select **Share to work notes** to copy the summary text to the activity stream.
 - Review the summary text in the Share to work notes pop-up window and modify the text as needed.
 - Select **Save to work notes** on the pop-up window to add the text to the activity stream.
- Select the refresh icon in the component footer to refresh the text and get the latest summary.

i Note: If the case doesn't contain enough text to summarize, the system displays the following message: "This case doesn't have the minimum number of words required for summarization yet."

To use the case summarization component with the Technology product support record page variant, activate the Now Assist for Customer Service Management (CSM) application and configure the case summarization skill in the Now Assist Admin console. For more information, see:

- [Activate Now Assist for Customer Service Management \(CSM\)](#) 
- [Configure the case summarization skill in the Now Assist Admin console](#) 

Activity stream component

The activity stream component displays a list of the activities occurring on a case record. The activities in the list can be collapsed or expanded. When collapsed, the agent can quickly scan the list to get an overview of case activities. When expanded, the agent can see detailed information on individual activities.

Technology product support record page activity stream component

Compose

Comments Work notes (Private)

Type your comments here

Everyone can see this comment

Post Comment

Activity

- John Jason** Internal 3 days ago
Work note • Mon, Apr 17, 5:44 PM
These changes look good to me. Please update the record [CS1229034](#) as well.
- George Warren - filename] and 3 attachments added** 3 days ago
- Beth Anglin - Added comment: Lorem ipsum dolor sit amet, co...** 3 days ago
- Beth Anglin - Added comment: Lorem ipsum dolor sit amet, co...** 3 days ago
- George Warren - filename] and 3 attachments added** 3 days ago
- John Jason - Issue during class with broken pedals on our Pelot...** 3 days ago
- George Warren - filename] and 3 attachments added** 3 days ago
- George Warren - Issue during class with broken pedals on our...** 3 days ago

The activities in the activity stream are represented by tiles that use icons and colors to indicate the activity type:

- Comment
- Work note
- Attachment
- Field change
- Email sent or email received
- Chat discussion

When collapsed, each activity in the list includes:

- A tile that represents the activity type.
- The name of the user responsible for the activity.
- A brief one-line summary of the activity.
- A badge that indicates if an activity is internal or external.
- A relative timestamp.
- An expand button that the agent can use to see a detailed summary of the activity.

When expanded, each activity also includes:

- A full date and timestamp.
- An action label that describes the type of activity.
- For comments and work notes, the full text of the comment or work note.
- For field updates, the field name and the updated field value.
- For emails, detailed message information.
- For attachments, a small preview of the attached file.
- For chats, a sidebar chat card.


The activity stream uses [modeless dialogs](#) for composing comments, work notes, and emails. Use the **Compose** button in the action bar to create these items.

- **Compose > Comment:** Opens the Compose a comment modeless dialog.
- **Compose > Work note:** Opens the Compose a work note modeless dialog.
- **Compose > Email:** Opens the Compose email modeless dialog.

Contextual side panel component

The contextual side panel component includes different tools that agents can use to research and resolve customer issues. The contextual side panel in the Technology product support record page includes the following tabs.

Technology product support record page tabs in the contextual side panel

Tab	Description
Activity stream	The activity stream component displays a list of the activities occurring on a case record.
Recommended Actions search	The Recommended Actions tab includes AI search  functionality. Agents can use AI search to find relevant resources or resolutions for customer issues. The search feature displays an initial set of search results based on the text in the case short description. This initial set of results includes knowledge articles. Agents can also enter different search keywords and repeat the search. From the list of search results, agents can do the following: <ul style="list-style-type: none"> • Select a source to see search results of that type. • Filter the list of search results.

Technology product support record page tabs in the contextual side panel (continued)

Tab	Description
	<ul style="list-style-type: none"> • Sort the list of search results. • Open the search results in full view in a record subtab. • Take the following actions: <ul style="list-style-type: none"> ○ View and attach article ○ Perform other actions such as reading articles in full view, flagging articles, or marking articles as helpful or unhelpful. • View successful actions by selecting the Actions history icon. <p>For more information, see Use AI search in Recommended Actions to resolve cases.</p> <p>Note: Using Recommended Actions in the contextual side panel requires the Recommended Actions application (sn_cs_nb_action) which is included with the CSM Configurable Workspace application.</p>
<p>Related Items</p>	<p>The Related Items tab provides access the case-related lists.</p> <p>The Technology product support record page incorporates related list functionality into the contextual side panel. These lists appear in an accordion format that agents can expand and collapse as needed.</p> <p>An indicator displays the number of records available in a related list. When expanded, the records in a related list are displayed in card format.</p>
<p>Attachments</p>	<p>The Attachments tab provides access to case-related attachments. From this tab, agents can view and download attachments.</p>
<p>Templates</p>	<p>The Templates tab provides access to available form templates which enable agents to automatically populate fields on new records. Agents can manually apply a template when creating a record such as an incident or change.</p>
<p>Response Templates</p>	<p>The Response Templates tab provides access to available response templates. These templates contain reusable messages that agents can copy to provide quick and consistent messages to customers.</p>
<p>Email Templates</p>	<p>The Email Templates tab provides access to available email templates. These templates contain default values for fields that agents can add to email messages. These default values can include the recipients (email addresses in the To, Cc, and Bcc fields), the sender, the subject of the email, and text to include in the message body.</p>

Recommended Actions search component

The Recommended Actions component appears as a tab in the contextual side pane and provides agents with an AI search capability. Agents can search for information, review and attach knowledge articles, and attach similar cases.

By default the AI search configuration searches on the case short description.

For knowledge articles, an agent can view an article and attach the article to the current case. After attaching an article, the article is displayed in the Attached Knowledge list of the Related Records tab.

- Selecting **Review and attach article** displays the article in the contextual side panel.
- Selecting **Attach this article** attaches the knowledge article to the current case.

Note: Using Recommended Actions in the contextual side panel requires the [Recommended Actions](#) application (sn_cs_nb_action) which is included with the CSM Configurable Workspace application.

Related Items component

The Technology product support record page incorporates related items functionality into the contextual side panel. The Related Items tab provides agents with access to the case-related lists. These lists are displayed in an accordion format that agents can expand and collapse as needed.

Technology product support record page related lists component

Related List	Count
Work Orders	1
SLAs	3
Tasks	2
Interactions	0
Draft Emails	0
Emails	5
Task Skills	0
Attached Knowledge	0
Knowledge Gaps	0
Escalations	1
Child Cases	0
Special Handling Notes List	0
Requests	0
Appointments	0
Social Logs	0
Blocked by	3
Related Parties	0

Related List	Count
Work Orders	1
SLAs	1
Tasks	0
Interactions	0
Draft Emails	0
Emails	5
Task Skills	0
Attached Knowledge	0
Knowledge Gaps	0
Escalations	0
Child Cases	0
Special Handling Notes List	1
Requests	0

An indicator displays the number of records available in a related list. When expanded, the records in a related list are displayed in card format. If a related list is empty, agents can select Create one in the list to create a record.

The related items component in the contextual side panel includes the following related lists:

- Affected Install Base Items
- Tasks
- SLAs
- Special Handling Notes List
- Escalations
- Child Cases
- Change Requests
- Blocked By
- Related Parties
- Attached Knowledge
- Knowledge Gaps
- Emails
- Draft Emails
- Task Skills
- Work Orders

Related lists include the following actions:

- **Create**: Opens an empty record in a subtab that the agent can use to create a new item.
- **View all**: Opens a list of records in a subtab.
- **Show more**: Is displayed for lists that have more than five items.

The items in an expanded list are displayed as cards. An expanded list shows one card for each item in the list.

- Agents can open an item in a subtab.
- If a list has more than five items, it includes an **Show more** option.

Creating a case

Agents can create a technology product support case by selecting **Create case** from the More Actions menu in the action bar.

Creating a case opens a service selector modal and displays the services defined for the Technology Product Support case type. From this modal, agents can:

- Search for a service.
- Select a service.
- Select **Create case**.

The system creates the case and displays the new case record.

Note: This action is active by default for the Technology product support record page.

Using Now Assist for CSM to generate resolution notes for a case

Agents can automatically generate the resolution notes for a case, propose the resolution to the customer, and add the resolution information to the case record by using the resolution notes generation skill in the Now Assist for Customer Service Management (CSM) application.

Selecting the **Propose Solution** UI action on a case record displays the Propose Solution modal. If the **Resolution notes** field on the case record is empty, the resolution notes that generation skill adds the information to this field in the modal. For more information, see [Generate the resolution notes for a case by using Now Assist for Customer Service Management \(CSM\)](#).

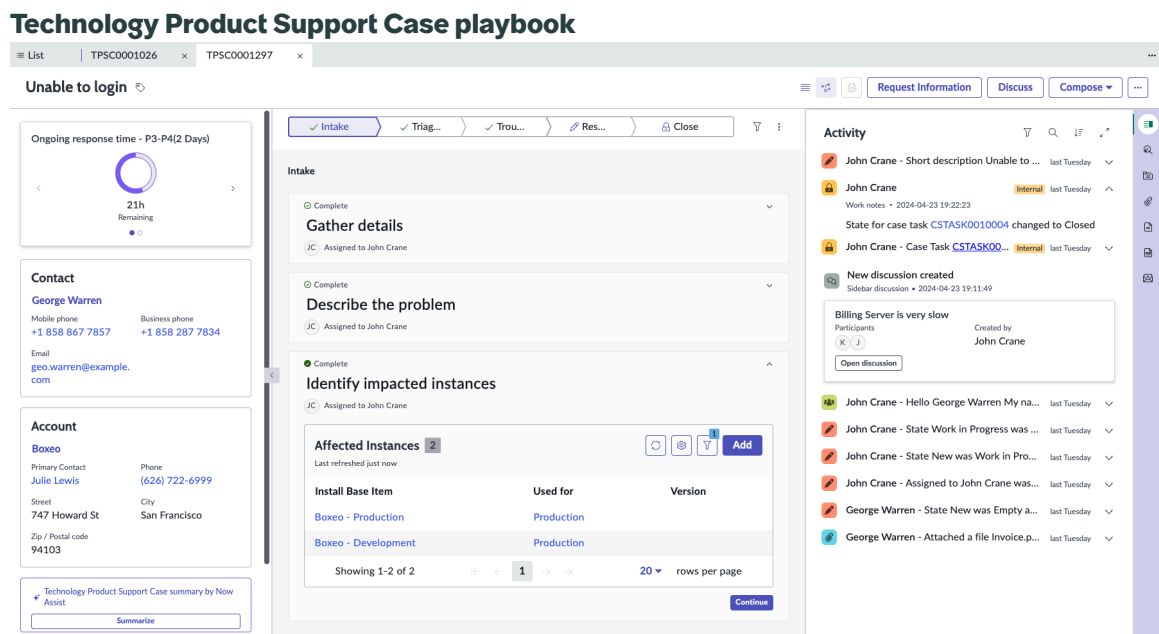
Note: The resolution notes that generation skill requires a minimum of 200 words in the case record to generate the resolution notes. If the resolution notes can't be generated, the system displays a message below the **Resolution notes** field.

To use the resolution notes generation skill with the Technology product support record page variant:

- [Activate Now Assist for Customer Service Management \(CSM\)](#).
- [Configure the resolution notes generation skill in the Now Assist Admin console](#).
- [Configure the Propose Solution UI action and declarative action](#).

Technology Product Support Case playbook

The Technology Product Support Case playbook provides step-by-step guidance for resolving technology cases.



A playbook visualizes a workflow in a simple, task-oriented view and guides the agent through sequences of tasks.

- A stage in a playbook is a grouped sequence of activities.
- An activity in a stage represents an individual task for an agent to complete. Stages can also include automated activities, such as sending a notification to a customer when a stage or activity is complete.

The **Technology product support process page** provides access to the playbook in CSM Configurable Workspace.

For detailed information about the stages and activities, see [Technology product support case playbook stages and activities](#).

Technology product support process page variant

The Technology product support process page variant is included with the Technology Product Support Case application (sn_tech_product_support). A page variant is a version of a page that has unique settings. This page variant includes the following settings.

Technology product support process page variant settings

Setting	Description
Active	<p>Enabling the Active check box makes the page variant available to the selected audience.</p> <p>The technology product support process page is active by default.</p> <p>The active setting combined with the page order determines the page that CSM Configurable Workspace uses to display record information. For more information, see Set record page order.</p>
Order	<p>Each record page has an order which indicates the page priority. The lower the number, the higher the priority.</p> <p>The default order for the Technology product support process page variant is -100.</p>
Conditions	<p>Conditions determine when a page variant is displayed. The Technology product support process page has the following condition:</p> <p>table=sn_tech_product_support_case</p> <p>This condition limits the use of the page variant to records from the Tech Product Support Case [sn_tech_product_support_case] table.</p>
Audience	<p>The audience determines who can see the page variant.</p> <p>The Technology product support playbook variant audience includes the Technology Support Agent.</p>

To access the settings for this page variant:

1. Navigate to **All > Now Experience Framework > UI Builder**.
2. Select the **CSM/FSM Configurable Workspace** experience.
3. In the Record section of the Pages and variants list, select **Technology product support process page**.
4. Select **Settings** at the top of the page.

Technology product support process page components

Technology product support process page variant includes the following components.

Technology product support playbook components

Component	Description
Form heading	The form heading displays the case short description and also includes the action bar and record tags.
Record tags	Agents can create multiple tags for a record and then use the tags to group and organize records. For more information, see Tags .
Action bar	The action bar contains the actions available to users while working on case records. The specific actions are determined by factors such as the user role, case state, and other attributes.
SLA component	A service level agreement (SLA) defines a set amount of time for a task to reach a certain condition. This ensures that tasks resolved according to the expectations set for customers. For more information, see SLA definitions .
Account and contact lookup components	Agents can use the account and contact lookup components to do the following: <ul style="list-style-type: none"> • Search for an account or contact. • Create an account or contact. • Link or unlink an account or contact. • Edit and save a linked account or contact record. • Select a reference field on a lookup card, such as a contact name, to open the reference in a sub-tab. • Select an email address on a lookup card to open a draft email in the email composer in a sub-tab. • Select a phone number on a lookup card to make a call. <p>The account and contact lookup components display information in record cards. These cards display account and contact information and provide quick access to customer details such name, email, and phone.</p>
Case highlights component	The case highlights component displays important details about the case including the case number and priority.
Case summarization component	The case summarization component appears in the left side panel. When an agent opens a case record, the component is collapsed and in the default state. Agents can use this component to do the following: <ul style="list-style-type: none"> • Summarize case details. • Post the summary to the activity stream. • Refresh the summary.

Technology product support playbook components (continued)

Component	Description
	<p>The case summarization component requires that the Now Assist for Customer Service Management (CSM) application is installed and the case summarization skill has been configured.</p>
<p>Playbook</p>	<p>The Technology product support process page includes a horizontal playbook that guides the agent through the following stages:</p> <ul style="list-style-type: none"> • Intake • Triage • Troubleshoot • Resolve • Close <p>For more information about the playbook, see Playbook stages and activities.</p>
<p>Contextual side panel</p>	<p>The contextual side panel component includes different tools that agents can use to research and resolve customer issues. The contextual side panel in the Technology product support process page includes the following tabs.</p> <ul style="list-style-type: none"> • Activity stream • Recommended Actions • Related Items • Attachments • Templates • Response Templates • Email Templates • Run diagnostics <p>For more information, see the following sections:</p> <ul style="list-style-type: none"> • Activity stream component • Recommended Actions / Search component • Related Items component
<p>Modeless dialogs</p>	<p>Agents can use modeless dialogs to create comments, work notes, and email messages.</p>
<p>Workspace form view</p>	<p>The Technology product support process page provides agents with the option to toggle between the playbook stages and activities and the record details.</p> <p>When viewing record details, the Technology product support process page uses the Workspace form view, which includes the following sections:</p>

Technology product support playbook components (continued)

Component	Description
	<ul style="list-style-type: none"> • Case Details • Issue Details • Initial Response • Technical Action Plan • Other Case Details • Related Records • Notes • Closure Information <p>These sections can be expanded and collapsed to display the fields within each section.</p> <p>The Workspace form view also includes a menu with additional form actions, such as personalizing the form, exporting data, and copying the URL.</p> <p>For more information about the fields that appear in these sections, see Tech Product Support Case table.</p>

Action bar

The following actions are available on the Technology product support process page action bar. The specific actions that are available are determined by factors such as the user role, case state, and other attributes.

- **Record details:** Select this icon to view the record details.
- **Playbook details:** Select this icon to view the playbook stages and activities.
- **In-progress Actions:** Provides a list of minimized modeless dialogs and includes a badge that displays the number of items in the list. From this list, an agent can select an item to open the minimized comment, work note, or email.
- **Request Information:** The agent requests information from the customer. Selecting this action moves the case state to Awaiting Information.
- **Information Received:** The agent acknowledges that information was received from the customer. Selecting this action moves the case state to Work in Progress.
- **Discuss:** starts a Sidebar discussion. For more information about using the Sidebar feature, see [Exploring Sidebar](#).
- **Compose:** Compose comments, work notes, and emails in modeless dialogs.
- **Save:** Saves changes to the case record.
- **Accept Solution:** The agent can accept the proposed solution on behalf of the customer. Moves the case to Closed.
- **Reject Solution:** The agent can reject the proposed solution on behalf of the customer. Moves the case to Work in Progress.
- **More Actions:** enables users to take additional actions such as proposing a major case or reporting a knowledge gap.

Account and contact lookup components

The account and contact lookup components enable agents to do the following:

- Look up an account or contact by name, phone number, or email address. As the agent types characters in the search box, matching information appears in record cards below the search box.
- Select an account or contact after searching by selecting the desired record card. The selected record card replaces the lookup component.
- Create a new account or contact by selecting the **+** icon on the lookup component, filling in the fields for the account or contact, and selecting **Save**. A record card for the new account or contact replaces the lookup component.

Agents can perform the following actions from a record card:

- Remove a linked account or contact from a case record by selecting the more actions icon and then selecting **Unlink**. Then save the form to apply this change.
- Edit and save a linked account or contact record by selecting the pencil icon, editing the information for the account or contact, and selecting **Save**.
- Select a reference field on a lookup card to open the referenced record in a subtab.
- Select an email address on a lookup card to open to open the email composer in a subtab.
- Select a phone number on a lookup card to make a phone call.

Case summarization component

The case summarization component provides agents with a summary of a customer service case, including the issue and the actions taken. Agents can generate summaries to understand case context and post summaries to the case work notes.



The case summarization component appears in the left side panel on the Technology product support process page variant. Upon first opening a case, the component is collapsed and in the default state.

Using this component, agents can:

- Select **Summarize** to create a summary of the case details.
- Select **Share to work notes** to copy the summary text to the activity stream.
 - Review the summary text in the Share to work notes popup window and modify the text as needed.
 - Select **Save to work notes** on the popup window to add the text to the activity stream.
- Select the refresh icon in the component footer to refresh the text and get the latest summary.

i Note: If the case does not contain enough text to summarize, the system displays the following message: "This case doesn't have the minimum number of words required for summarization yet."

To use the case summarization component with the Technology product support process page variant, activate the Now Assist for Customer Service Management (CSM) application and configure the case summarization skill in the Now Assist Admin console. For more information, see:

- [Activate Now Assist for Customer Service Management \(CSM\)](#) 
- [Configure the case summarization skill in the Now Assist Admin console](#) 

Contextual side panel component

The contextual side panel component includes different tools that agents can use to research and resolve customer issues. The contextual side panel in the Technology product support process page includes the following tabs.

Technology product support process page tabs in the contextual side panel

Tab	Description
Activity stream	<p>The activity stream component displays a list of the activities occurring on a case record.</p>
Recommended Actions search	<p>The Recommended Actions tab includes AI search functionality. Agents can use AI search to find relevant resources or resolutions for customer issues.</p> <p>The search feature displays an initial set of search results based on the text in the case short description. This initial set of results includes knowledge articles. Agents can also enter different search keywords and repeat the search.</p> <p>From the list of search results, agents can do the following:</p> <ul style="list-style-type: none"> • Select a source to see search results of that type. • Filter the list of search results. • Sort the list of search results. • Open the search results in full view in a record sub-tab. • Take the following actions: <ul style="list-style-type: none"> ○ View and attach article ○ Link to case ○ Perform other actions such as reading articles in full view, flagging articles, or marking articles as helpful or unhelpful. • View successful actions by selecting the Actions history icon. <p>For more information, see Use AI search in Recommended Actions to resolve cases.</p> <p>Note: Using Recommended Actions in the contextual side panel requires the Recommended Actions application (sn_cs_nb_action) which is included with the CSM Configurable Workspace application.</p>
Related Items	<p>The Related Items tab provides access the case related lists.</p> <p>The Technology product support playbook incorporates related list functionality into the contextual side panel. These lists appear in an accordion format that agents can expand and collapse as needed.</p>

Technology product support process page tabs in the contextual side panel (continued)

Tab	Description
	An indicator displays the number of records available in a related list. When expanded, the records in a related list are displayed in card format.
Attachments	The Attachments tab provides access to case-related attachments. From this tab, agents can view and download attachments.
Templates	The Templates tab provides access to available form templates which enable agents to automatically populate fields on new records. Agents can manually apply a template when creating a new record such as an incident or change.
Response Templates	The Response Templates tab provides access to available response templates. These templates contain reusable messages that agents can copy to provide quick and consistent messages to customers.
Email Templates	The Email Templates tab provides access to available email templates. These templates contain default values for fields that agents can add to email messages. These default values can include the recipients (email addresses in the To, Cc, and Bcc fields), the sender, the subject of the email, and text to include in the message body.
Run diagnostics	The Run diagnostics tab provides access to run the diagnose and identify the root-cause of the problem.

Activity stream component

The Technology product support process page includes the activity stream in the first tab of the contextual side panel.

The activity stream component displays a list of the activities occurring on a case record. The activities in the list can be collapsed or expanded. When collapsed, the agent can quickly scan the list to get an overview of case activities. When expanded, the agent can see detailed information individual activities.

Technology product support playbook activity stream component

Compose

Comments
 Work notes (Private)

Type your comments here

Everyone can see this comment
Post Comment

Activity

John Jason
Internal
3 days ago

Work note • Mon, Apr 17, 5:44 PM

These changes look good to me. Please update the record [CS1229034](#) as well.

George Warren - filename] and 3 attachments added
3 days ago

Beth Anglin - Added comment: Lorem ipsum dolor sit amet, co...
3 days ago

Beth Anglin - Added comment: Lorem ipsum dolor sit amet, co...
3 days ago

George Warren - filename] and 3 attachments added
3 days ago

John Jason - Issue during class with broken pedals on our Pelot...
3 days ago

George Warren - filename] and 3 attachments added
3 days ago

George Warren - Issue during class with broken pedals on our...
3 days ago

The activities in the activity stream are represented by tiles that use icons and colors to indicate the activity type.

- Comment
- Work note
- Attachment
- Field change
- Email sent or email received
- Chat discussion
- Custom icon

When collapsed, each activity in the list includes:

- A tile that represents the activity type.
- The name of the user responsible for the activity.

- A brief one-line summary of the activity.
- A badge that indicates if an activity is internal or external.
- A relative timestamp.
- An expand button that the agent can use to see a detailed summary of the activity.

When expanded, each activity also includes:

- A full date and time stamp.
- An action label that describes the type of activity.
- For comments and work notes, the full text of the comment or work note.
- For field updates, the field name and the updated field value.
- For emails, detailed message information.
- For attachments, a small preview of the attached file.
- For chats, a sidebar chat card.

The activity stream uses [modeless dialogs](#) for composing comments, work notes, and emails. Use the **Compose** button in the action bar to create these items.

- **Compose > Comment:** opens the Compose a comment modeless dialog.
- **Compose > Work note:** opens the Compose a work note modeless dialog.
- **Compose > Email:** opens the Compose email modeless dialog.

Recommended actions search component

The Recommended Actions search component appears as a tab in the contextual side panel and provides agents with an AI search capability. Agents can search for information, review and attach knowledge articles, and attach similar cases.

By default the AI search configuration searches on the case short description.

For knowledge articles, an agent can view an article and attach the article to the current case. After attaching an article, the article is displayed in the Attached Knowledge list of the Related Records tab.

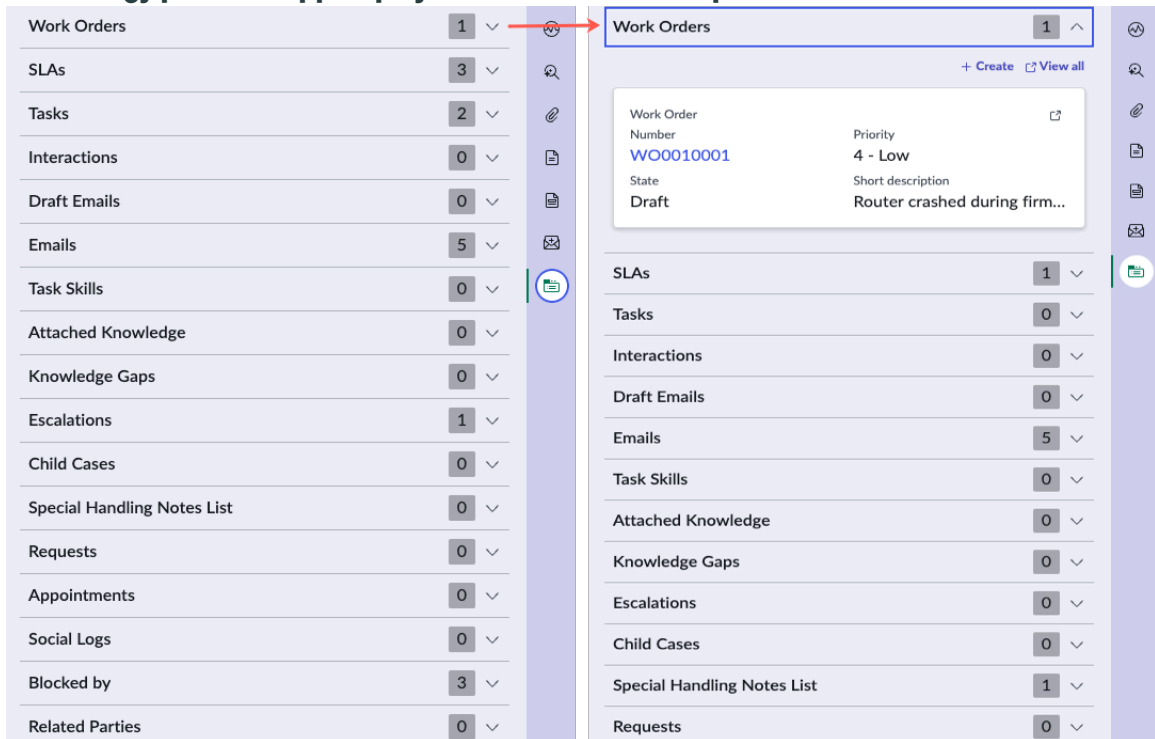
- Selecting **Review and attach article** displays the article in the contextual side panel.
- Selecting **Attach this article** attaches the knowledge article to the current case.

Note: Using Recommended Actions in the contextual side panel requires the [Recommended Actions](#) application (sn_cs_nb_action) which is included with the CSM Configurable Workspace application.

Related Items component

The Technology product support playbook incorporates related list functionality into the contextual side panel. The Related Items tab provides agents with access to the case related lists. These lists are displayed in an accordion format that agents can expand and collapse as needed.

Technology product support playbook related lists component



An indicator displays the number of records available in a related list. When expanded, the records in a related list are displayed in card format. If a related list is empty, agents can select Create one in the list to create a record.

The related items component in the contextual side panel includes the following related lists:

- Affected Install Base Items
- Tasks
- SLAs
- Special Handling Notes List
- Escalations
- Child Cases
- Change Requests
- Blocked By
- Related Parties
- Attached Knowledge
- Knowledge Gaps
- Emails
- Draft Emails
- Task Skills
- Work Orders

Related lists include the following actions:

- **Create:** opens a blank record in a sub tab that the agent can use to create a new item.
- **View all:** opens a list of records in a sub tab.
- **Show more:** is displayed for lists that have more than five items.

The items in an expanded list are displayed as cards. An expanded list shows one card for each item in the list.

- Agents can open an item in a sub-tab.
- If a list has more than five items, it includes a **Show more** option.

Modeless dialogs

The Technology product support playbook uses modeless dialogs to create comments, work notes, and email messages. The following actions are available from the **Compose** button in the form header:

- **Compose > Comment:** opens the Compose a comment modeless dialog.
- **Compose > Work note:** opens the Compose a work note modeless dialog.
- **Compose > Email:** opens the Compose email modeless dialog.

The following rules apply to modeless dialog visibility:

- One modeless dialog of each type (comment, work note, or email) can be active at a time.
- One modeless dialog can displayed at a time while the other two are minimized.
- Minimized modeless dialogs appear in the In-progress Actions menu in the action bar. This menu displays a badge that shows the number of minimized modeless dialogs.
- If an agent opens a second modeless dialog while the first modeless dialog is displayed, the system minimizes the first modeless dialog.

Agents can do the following:

- Select the In-progress Actions menu to see a list of minimized modeless dialogs. Each entry in the list includes the title and category of the minimized item.
 - For email, the title is the email subject.
 - For comments and work notes, the title is the first line of text.
- Select an item from the list to open the minimized modeless dialog.

Closure behavior for comments, work notes, and email:

- Posting a comment or work note to the activity stream closes the modeless dialog.
- Saving the record posts a comment or work note to the activity stream closes the modeless dialog.
- Sending an email closes the modeless dialog. The system adds the email to the activity stream and to the Emails related list.

Discard behavior for comments and work notes:

- Closing a work note or comment modeless dialog discards the text. The system displays a Close Dialog pop-up window and asks the agent to confirm the action.
 - Selecting **Continue** confirms the action, discards the text, and closes the window.
 - Selecting **Cancel** or the Close Dialog button cancels the action. The modeless dialog remains open and the text remains in the dialog.
- The text is discarded in the modeless dialog and on the form field.

Agents can use response templates from the contextual side panel to copy text into the modeless dialogs.

Agents can apply templates to emails in a modeless dialog:

- Select a template from the Email Templates tab in the contextual side panel and then select **Apply Template**. The contents of the template is added to the modeless dialog.
- If a modeless dialog is minimized, display the dialog before applying the template.

Agents can also toggle the **Rich text editor** button in the email modeless dialog to show or hide the TinyMCE formatter.

For more information, see [Modeless dialogs](#) .

Update action plans

Agents can update a case action plan multiple times during the case resolution process. For example, an agent can update the plan before transferring the case to another agent.

The Related work activity in the Troubleshoot stage of the playbook includes an **Update action plan** declarative action that the agent can use to make updates. Selecting this action takes the agent back to the Update action plan activity. After updating the plan and selecting **Save**, the system posts the action plan to the activity stream and returns the agent to the Related Work activity.

A new filter set (Action Plan) is available in the activity stream. Agents can use this filter set to view only the action plan fields.


Creating a case

Agents can create a technology product support case by selecting **Create case** from the More Actions menu in the action bar.

Creating a case opens a service selector modal and displays the services defined for the Technology Product Support case type. From this modal, agents can:

- Search for a service.
- Select a service.
- Select **Create case**.

The system creates the case and launches the playbook associated with the service definition. For more information, see [Associate a playbook with a service definition](#) .

 **Note:** This action is active by default for the Technology product support process page.

Using Now Assist for CSM to generate resolution notes for a case

Agents can automatically generate the resolution notes for a case by using the resolution notes generation skill in the Now Assist for Customer Service Management (CSM) application.

When the playbook transitions to the Resolve stage, the resolution notes generation skill adds the information to the **Resolution notes** field in the Propose resolution activity.

Note: The resolution notes generation skill requires a minimum of 200 words in the case record to generate the resolution notes. If the resolution notes cannot be generated, the system displays a message below the **Resolution notes** field.

To use the resolution notes generation skill with the Technology product support process page variant:

1. [Activate Now Assist for Customer Service Management \(CSM\)](#)
2. [Configure the resolution notes generation skill in the Now Assist Admin console](#)

Playbook stages and activities

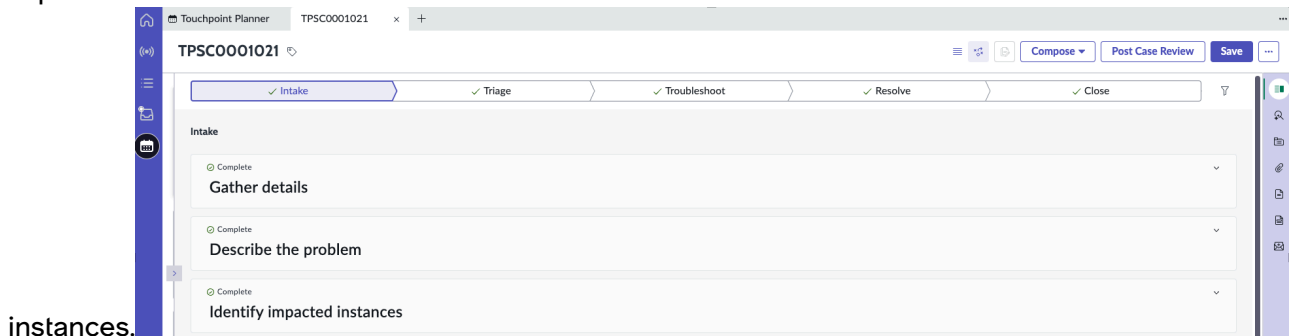
The Technology Product Support Case playbook includes stages and activities that assist agents in researching and resolving technology cases.

When an agent creates a technology product support case, the system opens a service selector modal and displays the services defined for the Technology Product Support case type.

The agent selects a service and then selects **Create** to create a case. The system creates the case and launches the Technology Product Support Case playbook. This playbook includes the stages and activities described in the following sections.

Intake stage

During the intake stage, an agent gathers information about the customer, the issue, and the impacted



instances.

Intake stage activities

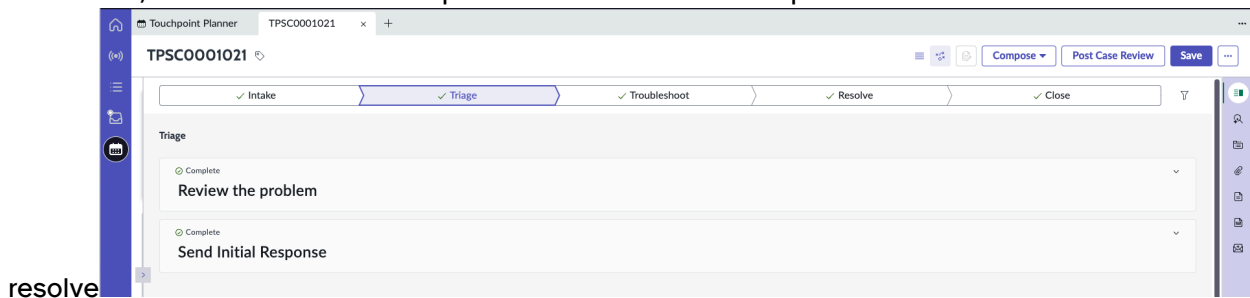
Activity	Description
Gather details	The agent gathers information about the account and contact and the product and adds a short description. Select Continue to save the information and move to the next activity.
Describe the problem	The agent describes the issue type and the details and adds a case description and steps

Intake stage activities (continued)

Activity	Description
	to reproduce. The agent can also add users to the watch list and add attachments. Select Continue to save the information and move to the next activity.
Identify impacted instances	The agent adds the impacted instances from a list of instances that belong to the account. Select Continue to save the information and move to the first activity in the Triage stage.

Triage stage

During the triage stage, the agent reviews the case information, makes changes as needed, and sends an initial response to the customer.tech-product-case-



Triage stage activities

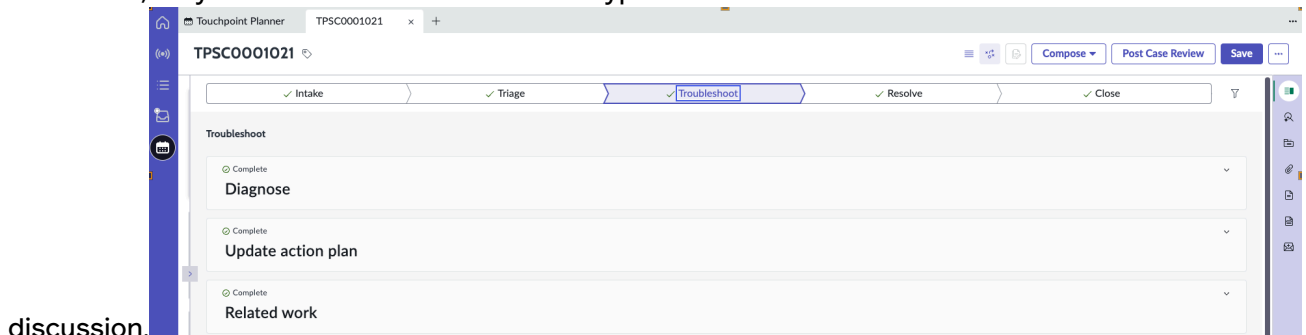
Activity	Description
Review the problem	The agent can review information about the customer issue, including the affected instances selected in the Intake stage and the sold product or product component. In addition to reviewing information, the agent can update the list of affected instances and the attachments. The following actions are available: <ul style="list-style-type: none">• Assign to me: The agent can select this action to self-assign the case.• Accept: The agent can select this action to accept the assigned case. Once the case is assigned, the agent can select Continue to save the information and move to the next activity.
Send initial response	The agent can send a response to the customer by entering text in the Initial response field. If desired, the agent can use a

Triage stage activities (continued)

Activity	Description
	<p>template from the Response Templates tab in the contextual side panel.</p> <p>The agent can also enter text in the Work notes field to capture internal information.</p> <p>After entering text in these fields, the agent can:</p> <ul style="list-style-type: none"> • Select Save to save the information in the fields without sending it to the customer. • Select Send and Continue to send the initial response to the customer, post the work notes, and move to the Troubleshoot stage.

Troubleshoot stage

During the troubleshoot stage, the agent investigates the customer's issue and updates their findings in the action plan. The agent can leverage tools such as search or recommended actions as part of the investigation. If the agent needs assistance, they can create case tasks or other types of records or initiate a Sidebar



discussion.

Troubleshoot stage activities

Activity	Description
<p>Diagnose</p>	<p>The decision table is provided with the Technology Product Support Case application. You can modify the conditions that have been defined, and the results to suit your requirements.</p> <p>To enable the diagnostic activity in the troubleshoot stage, select the case category in the decision table as Issue, the diagnostic activity field is field is updated to True.</p> <p>The status can be changed to False by the agent. For more details on updating decision tables, see Decision Tables.</p> <p>The agent can view and do the following actions in these tabs:</p>

Troubleshoot stage activities (continued)

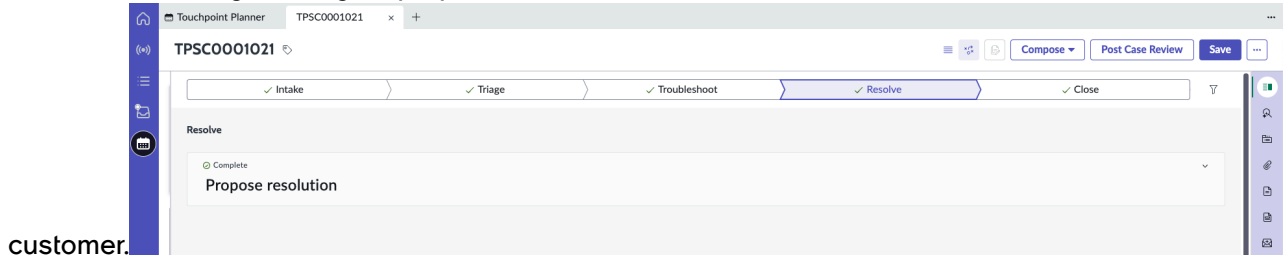
Activity	Description
	<ul style="list-style-type: none"> • 1. To generate the test results, select Run diagnostics from the contextual panel. <ul style="list-style-type: none"> • Note: To avoid conflicts, the system allows only one test to run at a given time. This is true even if you have multiple client test runner windows open. 2. In the run diagnostics panel, select CI/Service from the drop-down list. 3. Expand the Available Test Suite. 4. Select single/multiple test definitions. 5. Select Configure. 6. In the Configure tests dialog box, select test characteristics. 7. In the test dialog box, select an option either to run the test now or to schedule it for later. 8. Select Run test. • Test results <ul style="list-style-type: none"> 1. Select the Test results tab and review the results of the tests conducted in the previous step, checking whether each test is passed or failed. <p>The failed tests indicate that issues causing the service problem are identified and needing repair.</p> <p>A Repair task is created for all failed test cases related to the diagnosed service problem. For each unique service and test specification, only one repair task is created. The agent can then work on it and close this repair task.</p> 2. Select the View Details icon for a specific test result to review its details. 3. Select the Rerun test icon for a specific test result to run it again. • Diagnostic tasks If needed, the agent can create the diagnostic tasks manually and view the diagnostic tasks.
Update action plan	The agent investigates the issue and adds information to the following fields:

Troubleshoot stage activities (continued)

Activity	Description
	<ul style="list-style-type: none"> • Issue summary • Actions taken • Next steps <p>Selecting the Update and continue action:</p> <ul style="list-style-type: none"> • Saves the information in the action plan. • Posts the information to the activity stream. • Moves the agent to the Related work activity.
<p>Related work</p>	<p>The agent can see the action status of the case, if available, and can update the Needs attention field.</p> <p>The Related work activity includes a Recommended Actions card, Talk to an expert, that agents can use if they need assistance.</p> <ul style="list-style-type: none"> • Select Start discussion to initiate a Sidebar conversation. • Select Dismiss to close the card. <p>The Related work activity shows lists of related case records. The agent can expand these related record lists and view the record cards or create records.</p> <ul style="list-style-type: none"> • Update action plan: returns the agent to the Update action plan activity so they can update information. • Continue: completes the Troubleshoot stage and moves the agent to the Resolve stage. • Create repair tasks: Create a repair task and assign to the agent. <p>The Related work activity includes Resolution Tasks, that agents can use if the test fails and manually create the resolution task to solve the issue. The agent can expand these Resolution Tasks lists and view the list of resolution tasks or create one.</p>

Resolve stage

In the Resolve stage, the agent proposes a solution to the



customer.

Resolve stage activities

Activity	Description
Propose resolution	<p>The agent updates the following fields:</p> <ul style="list-style-type: none"> • Root cause code • Resolution code • Cause • Resolution notes <p>The agent can also enable the Add resolution notes to comments check box to add the resolution information to the case activity stream.</p> <p>Note: If the Now Assist for Customer Service Management (CSM) application is installed and the resolution notes generation skill has been configured, the Resolution notes field is automatically populated. For more information, see Using Now Assist for CSM to generate resolution notes for a case.</p> <ul style="list-style-type: none"> • Propose resolution: Completes the activity and moves to the Close stage. The case state changes to Solution Proposed. • Save: Saves the information in the activity.

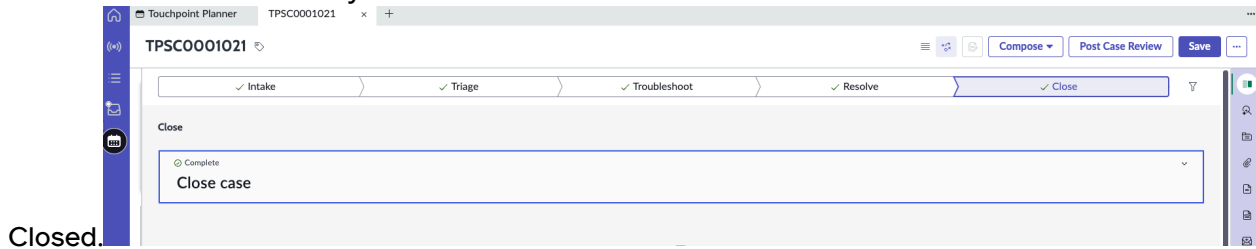
Close stage

A case can be closed in the following ways:

- The customer accepts the proposed solution.
- The agent accepts the proposed solution on behalf of the customer.
- The agent closes the case.
- The system auto closes the case after it remains in the Solution Proposed state for a certain number of days.

In the Close stage, the agent updates the case with a summary of the issue and provides any additional comments or work notes.

The case record is read-only when the state is



Closed.

Close stage activities

Activity	Description
Close case	<p>The agent updates the following fields:</p> <ul style="list-style-type: none"> • Issue summary • Root cause code • Resolution notes • Add resolution notes to comments • Additional comments • Work notes <ul style="list-style-type: none"> • Accept Solution: Saves the changes and posts the content in the Additional comments and Work notes fields to the activity stream. The case state changes from Solution Proposed to Closed. • Reject Solution: Saves the changes and posts the content in the Additional comments and Work notes fields to the activity stream. The case state changes from Solution Proposed to Work in progress. • Save: Saves the changes to the activity. <p>After the case is closed, the agent can select Create Post Case Review to open a post case review record in a sub-tab.</p>

Save and Continue actions

When a stage is in progress, the **Continue** action saves the information in the stage and moves the agent to the next activity in the flow. This can be the next activity within a stage or the first activity in the next stage.

When a stage is complete, the **Save** action is also available. This action saves the information in the stage but does not move the agent to the next stage. The **Save** action enables agents to update information in completed stages.

Displaying Recommended Actions in playbook activities

Recommended actions can be configured to appear inside playbook activities. By default, the **Talk to an expert** recommendation appears in the conceptual side panel.

The Technology Product Case Troubleshoot recommended actions rule:

- Provides the recommendation for an agent to discuss a case issue with an expert. This recommendation.
- Includes the following actions:
 - **Start discussion:** starts a Sidebar discussion.
 - **Dismiss:** dismisses the recommendation card.

For more information, see [Recommended Actions](#) .



Configuring Product Support for Technology

Learn how to install and configure the Product Support for Technology application.

Activation information

The Product Support for Technology application (sn_tech_support) is available from the ServiceNow Store.

Request apps on the Store

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

Plugin requirements

You must install the following plugins to start working on the Product Support for Technology application.

- Customer Service Case Types (com.snc.csm_case_types)
- Customer Service Install Base Management (com.snc.install_base)
- Customer Service Case Action Status (com.snc.csm_action_status)
- playbook for Customer Service Problem Management (com.sn_csm_playbook)
- Customer Service Problem Management agent workspace (com.snc.uib.csm_agent_workspace)
- Customer Service with Service Management (com.sn_cs_sm)
- Customer Service with Request Management (com.sn_cs_sm_request)
- Customer Service Case Digest (com.sn_csm_case_digest)
- Product Catalog Management Core (com.sn_prd_pm)
- Service Test Management (com.sn_st_mgmt)

Using Technology Product Support Case

Learn how to use Technology Product Support Case feature.

Create a technology product case


Customers can create a technology product case to report an issue about the service from the Customer Service Portal.

Before you begin

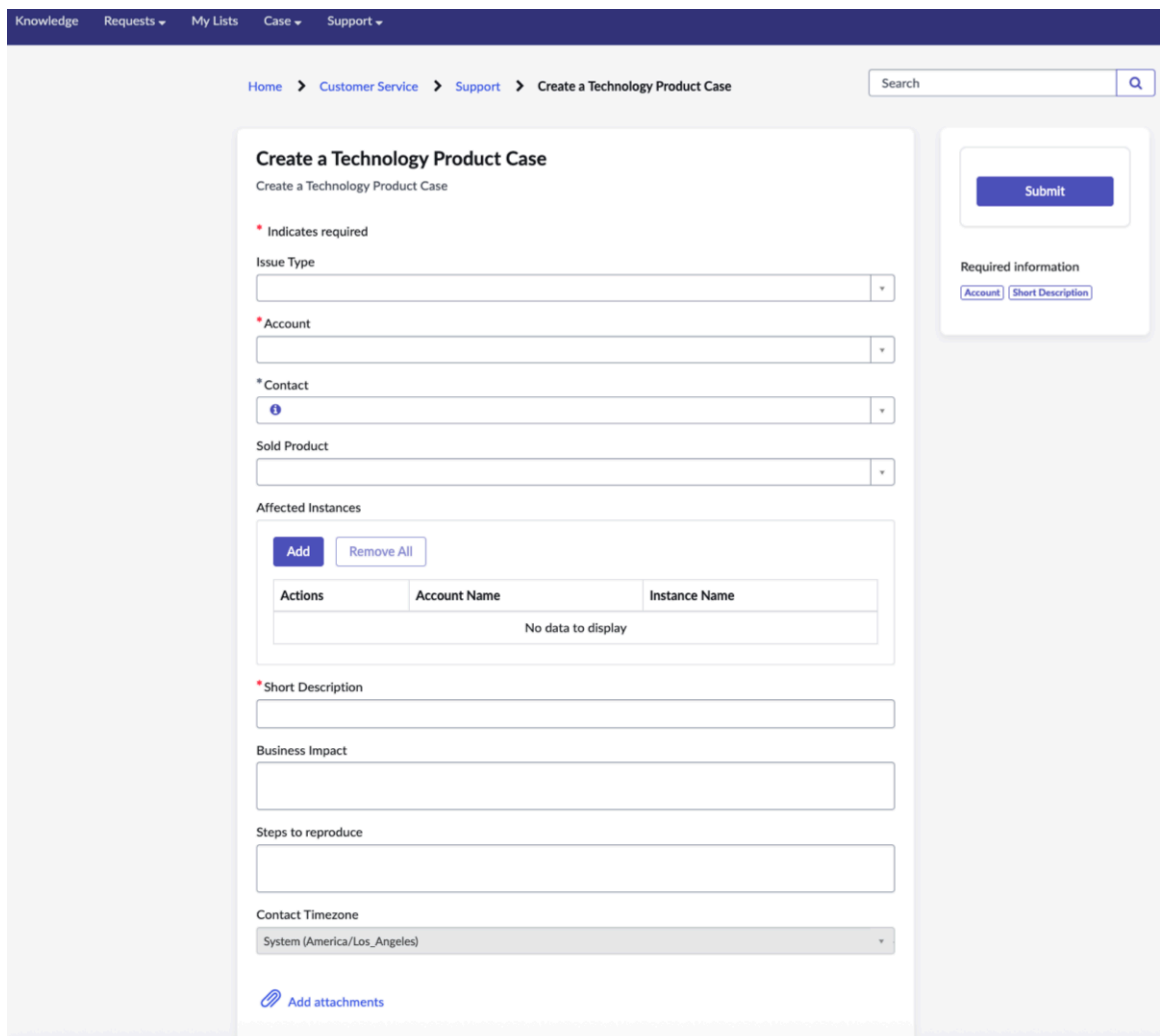
Role required: sn_tech_support.agent

Procedure

1. Go to the Customer Service Portal by accessing your instance URL and adding a /csm suffix.
2. On the home page, select **Get help**.
3. In the **Categories**, select a **Support** category from the list.
4. Select **Create a Technology Product Case**.

Case form as been created using a record producer. For more information about how to create record producer, see [Record Producer](#) .

5. On the form, fill in the fields.



The screenshot shows the 'Create a Technology Product Case' form in the ServiceNow Customer Service Portal. The form is titled 'Create a Technology Product Case' and includes a search bar at the top right. The form fields are as follows:

- Issue Type:** A dropdown menu.
- Account:** A dropdown menu.
- Contact:** A dropdown menu with a blue information icon.
- Sold Product:** A dropdown menu.
- Affected Instances:** A table with columns 'Actions', 'Account Name', and 'Instance Name'. It contains the text 'No data to display' and buttons for 'Add' and 'Remove All'.
- Short Description:** A text input field.
- Business Impact:** A text input field.
- Steps to reproduce:** A text input field.
- Contact Timezone:** A dropdown menu with the value 'System (America/Los_Angeles)'.

At the bottom left of the form, there is a link to 'Add attachments'. On the right side of the form, there is a 'Submit' button and a 'Required information' section with links for 'Account' and 'Short Description'.

Technology Product Case

Field	Description
Issue Type	Select the type of issue for the case: <ul style="list-style-type: none"> ○ Performance Issue ○ Question ○ Service Request ○ Something is Broken
Account	This account is default to logged-in user account
Contact	Auto-filled with the name of the logged-in user.
Sold Product	Select a product from the list of available products. This list includes the sold products for the logged-in user.
Affected Instances	Add the affected instances to this list.
Short description	Description of the issue or problem.
Business Impact	Impact that this issue is having on your business.
Steps to reproduce	Add the steps to reproduce the issue.
Contact Timezone	Displays the time zone of the user in the Contact field.

6. Select **Submit.**

When the service problem case is submitted, the stage is automatically set to **Verify** and state as **New**.

Diagnose and resolve a technology product support case

As a customer service agent, review, diagnose, resolve, and close a case for the service-related issue experienced by the customer.

Before you begin

Role required: sn_tech_support.agent

About this task

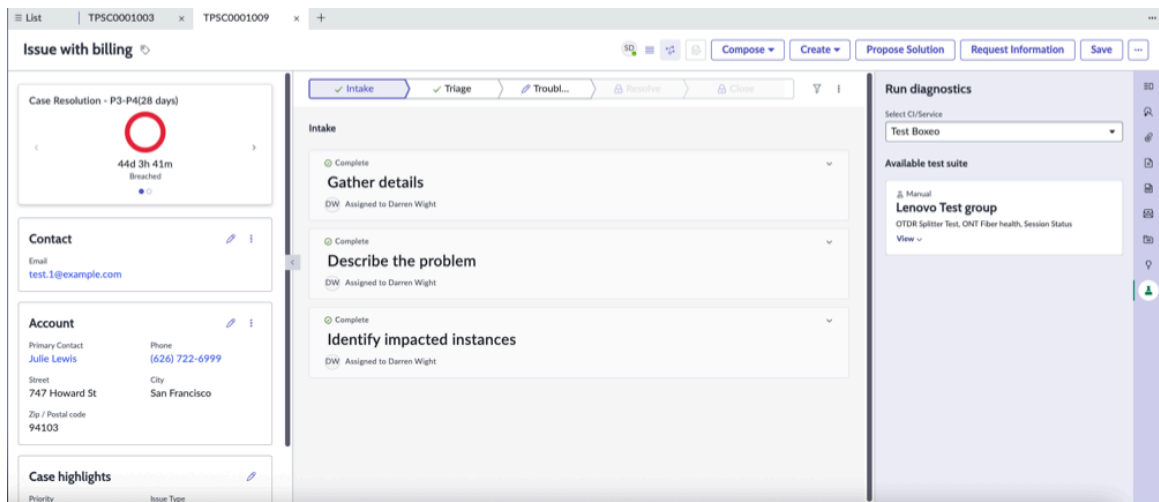
The technology product support case progresses through several stages from start to closure. It begins with a support agent reviewing and verifying the problem. Next is the diagnosis tab, where system-specified tests are executed to identify the root cause. After the tests, the support agent moves to the repair stage, creating a task to fix the identified issue. The agent follows the instructions in the repair task to address the problem areas. Once the repair is complete, the case is retested to confirm that the issue is resolved. Finally, the case is resolved and closed based on the customer's feedback on the provided solution.

Procedure

- 1. Navigate to **Workspaces > CSM/FSM Configurable Workspace**.**
- 2. Select the List icon.**

3. Navigate to **Technology Product Support Case > Assigned to me.**

4. Open the technology product support case that is in the New or Open state.



5. Review and verify the technology product support case.

- a. In the **Intake** tab, expand the **Gather details**, and then review and verify the general details for the technology product support case.
- b. Expand the **Describe the problem** and review the details of the technology product support case.
- c. Expand the **Identify impacted instances** and review the affected instances.
- d. Select **Continue**.

Note: Before the state is moved to close, the fields in the technology product support case form can be edited from the case highlights card.

The technology product support case moves to the Triage stage.

6. Review the case information.

- a. In the **Triage** tab, expand the **Review the problem** and review the details of the problem and affected instances.
- b. Expand the **Send Initial Response** and review the initial response.
The technology product support case moves to the Troubleshoot stage.

7. Diagnose the technology product support case to identify the root-cause of the problem.

- a. To generate the test results, select **Run diagnostics** from the contextual panel.
- b. In the run diagnostics panel, select **CI/Service** from the drop-down list.
- c. Expand the cards in the **Available Test Suite**.

To set up test definitions, see [Setting up test definitions](#).


To set up test group, see [Setting up a test group](#).

- d. In the manual test, select single/multiple tests.
In the automated test, selection of test isn't available.
- e. Select **Configure**.
- f. In the Configure tests dialog box, fill the test required characteristics form to activate the **Run test** button.
- g. **Optional:** In the test dialog box, select an option either to run the test now or to schedule it for later.

h. Select Run test.

- i. In the diagnose tab, expand the **Test results** and review the results of the tests conducted in the previous step, checking whether each test is passed or failed.

The failed tests indicate that the issues causing the technology product support case to be identified and need repair.

The maximum number of rows to the group is limited to 20 rows. To configure the maximum number of rows more than 20 rows to the group, see [Presentational List Usage](#) .

- j. **Optional:** Select the **View Details**  icon for a specific test result to review its details.

- k. **Optional:** Select the **Rerun test**  icon for a specific test result to run it again.

l. Select Continue.

- m. **Optional:** In the **Diagnostic tasks** tab, select **Create** to create manually the diagnostic tasks.

The case moves to the Repair stage.

8. Repair the case by creating a new or automated repair task.

- o Select **Generate automated task** to automatically create a repair task.
 - o Select **Create repair task** to manually create a customize repair task.
- A Repair task is created for all failed test cases related to the diagnosed cases.

- a. Select the repair task that you want to work on.
- b. In the Resolution task form, review the task details to identify the failed test and then work on those tests to fix the service problem.
- c. In the **Select** field, select an appropriate state from the list to update or close the repair task, such as Closed complete.
- d. Select **Save** and close the resolution task.
- e. Select **Continue**.

The case moves to the Resolve stage.

9. In the Resolve stage, review the proposed resolution for the case.

10. Close the technology product support case.

- a. Go to the Close stage and fill in the fields.

Close case form

Field	Description
Issue summary	Summary of the issue.
Resolution code	Code value that explains how the case is resolved. For example, Fixed by Support/ Guidance provided.
Resolution notes	Summarizes the resolution of technology product support case.
Add resolution notes to comments	Option to make the resolution notes available to anyone who can view the case activity stream.
Additional comments (Customer visible)	Comments related to the service problem case, if any. These comments are visible to your customer who can access this case.
Work notes	Information about state transitions.

- b. Select **Accept Solution** or **Reject Solution** based on the customer feedback.

Result

The technology product support case is resolved and closed successfully.

Technology Product Support Case reference

Reference topics provide additional information about the Technology Product Support Case feature.

Tech Product Support Case table

The Technology Product Support Case application adds the Tech Product Support Case (sn_tech_product_support_case) table.

Tech Product Support Case table fields

Field	Description
Account	The name of the contact's company. This field is filled in automatically if the information is available in the contact record.
Action status	Identifies cases that need attention or that are blocked.
Additional comments	Customer-viewable comments. Each comment is inserted into the Activity field when the user selects the Post button.
Assigned to	The assigned agent. If a group is selected in the Assignment group field, the assigned agent must belong to this group.
Assignment group	The assigned customer service agent group.
Channel	The method by which the customer initiated contact and the case was opened. For example, chat or email.

Tech Product Support Case table fields (continued)

Field	Description
Closed	The date and time that the case was closed.
Closed by	The name of the user who closed the case.
Close notes	Additional notes made by the user who closes the case.
Company	The name of the company for this case.
Contact	The name of the customer contact for this case.
Contract	The contract number associated with this case.
Created	The date and time that the case was created.
Created by	The name of the user who created the case.
Entitlement	The entitlement associated with this case. The available entitlements are filtered by the settings in the Account, Contract, Product, Asset fields.
Follow the sun	A check box to indicate that a case should be handed-off at the end of the work day for global follow-up.
Initial response	The first response sent by the agent to the customer.
Install base	The Install base field helps you track which products and services have been purchased by a customer, how they have been installed or provisioned, along with the detailed configuration for each installed item.
Issue summary	A summary of the case based on the agent's understanding of the reported issue.
Knowledge	If checked, the system automatically creates a draft knowledge article when the case is closed.
Last action plan updated	Indicates when the technical action plan was last updated.
Last action plan updated by	The user who last updated the technical action plan.
Needs attention	If enabled, the case record needs attention. For example, cases that have been updated by customers or internal users and are waiting for input or review.
Next steps	Stores the next steps to be taken toward case resolution.
Number	The auto generated case number.
Opened	The date and time that the case was opened.
Opened by	The name of the user who created the case.
Parent	The parent record for the case.
Partner	The name of the partner company.
Partner Contact	The name of the partner contact for this case.
Priority	The assigned priority for the case: <ul style="list-style-type: none"> • 1 - Critical • 2 - High

Tech Product Support Case table fields (continued)

Field	Description
	<ul style="list-style-type: none"> • 3 - Moderate • 4 - Low
Product	<p>The product model of the asset. A model is a specific version or configuration of an asset.</p> <p>The product can be one of the following types: Application model or Service Product model.</p> <p>Application models and Service Product models can have multiple components. They can also have multiple application, software, and software license combinations.</p>
Product component	<p>Displays a list of the child components for the product selected in the Product field.</p> <p>Users with the admin role can configure product components using the following related lists:</p> <ul style="list-style-type: none"> • Service Model form > Model Components related list • Application Model form > Model Components related list
Resolution code	<p>Choice list indicating the resolution states for the case.</p> <p>This field is mandatory when an agent proposes a solution for a case.</p>
Resolution notes	<p>Details about how the case was closed. This field is mandatory if a customer service agent or agent manager closes a case. If a customer closes a case, it is not mandatory.</p>
Resolved	<p>The date and time that the case was resolved.</p>
Resolved by	<p>The agent to whom the case is assigned when the case is resolved.</p>
Root cause code	<p>The reason that the case was created.</p>
Short description	<p>A brief description of the issue or problem.</p>
Sold Product	<p>The product that the case is being created for.</p>
Steps to reproduce	<p>Includes details of the steps to follow to reproduce the issue.</p>
Updated	<p>The date and time that the case was updated.</p>
Updated by	<p>The name of the user who last updated the case.</p>
Watch list	<p>Users who receive notifications about this case when additional comments are added or if the state of a case is changed to Resolved or Closed.</p>
Work notes	<p>Information about how to resolve the case, or steps taken to resolve it, if applicable.</p>

Tech Product Support Case table fields (continued)

Field	Description
	Internal users who have been added to the Work notes list receive the Case work notes added notification containing the work notes when added.
Work notes list	Users who receive notifications about this case when work notes are added.

API Notification Management

Use the API Notification Management to inform third-party systems about the incidents or cases that are created in a reactive or proactive way in the ServiceNow instance.

Get started

<p>Explore</p>  <p>Learn about API Notification Management.</p>	<p>Use</p>  <p>Inform third-party systems about the incidents or cases that are created in a reactive or proactive way.</p>
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Exploring API Notification Management

Use the Telecommunications API notification to inform third-party systems about the incidents or cases that are created in a reactive or proactive way in the ServiceNow instance. The customer will receive notifications regarding updates on the incident.

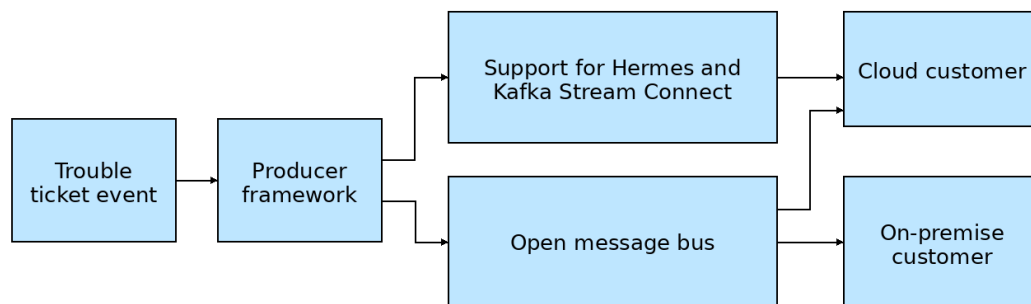
Introduction to API notifications

Trouble ticket in the TMF ecosystem is an incident that tracks and resolves customer-reported issues, network outages, or other problems. A trouble ticket incident can be created in either the reactive or proactive way. In the reactive approach, an incident is generated after conducting root cause analysis (RCA) on a case that is reported due to a system fault. In the proactive approach, an incident is generated after receiving alerts, enabling for the performance of RCA or service impact analysis (SIA) to evaluate the impact on the services. With the trouble ticket notification feature, you can send the details of the incident to the outbound systems.

API notification framework

The following diagram shows the components in the framework for the trouble ticket notification.

Trouble ticket notification data model



The trouble ticket notification uses a generic framework to send the outbound notifications to the external system. This framework supports two use cases:

1. Publish messages to Hermes Kafka using the Hermes messaging service. The cloud customers who use the Hermes Kafka can use this architecture to receive the notification.

To learn more, see [Producing outbound API notifications using Hermes](#).

2. Publish messages to open message bus. This use case is message-bus agnostic and therefore supports publishing the notification to any open message bus. Both cloud and on-premise customers can use this use case. To learn more, see [Outbound trouble ticket notifications via open message bus](#).

Using API Notification Management

Learn to use the API Notification Management application.

Producing outbound API notifications using Hermes

Produce an outbound notification from the ServiceNow instance using the Hermes capability. Customers can consume the details of the message from the Kafka environment in their external system.


In this use case, the notifications are produced to the Hermes cluster from your ServiceNow instance. After replication from Hermes to Kafka is completed, customers can consume or pull the messages from their own Kafka.

- To learn more about Hermes Messaging Service, see [Hermes Messaging Service](#) [↗](#).
- To learn more about Apache Kafka Stream Connect, see [Using Stream Connect for Apache Kafka](#) [↗](#).

In the Australia release, the following events are supported for trouble ticket notification.

- Create Trouble Ticket Event
- Trouble Ticket State Change Event
- Trouble Ticket Attribute Change Event
- Create Trouble Ticket Event for Case


Prerequisites

Before producing an outbound notification, the customer must create the topic in the Hermes cluster. To learn more about creating a topic in Hermes, see [Managing namespaces and topics in Hermes](#) .

Workflow

The workflow for producing the outbound notification by using Hermes contains the following steps:

1. On the trigger of the trouble ticket event, the system invokes the appropriate business rule, and stamps the event type.

To learn more about business rule that you must add to your ServiceNow instance, see [Add a business rule for a new trouble ticket event](#) .

2. The system pushes the Glide snapshot and event type in the staging table, which acts as a queue.
3. The producer framework picks the event and converts it to a TMF 688 complaint event payload.

To learn more about the system properties that you must configure for the producer framework, see [Using the producer framework for outbound notifications](#).

4. The system invokes the Producer V2 API of Stream Connect and produces the event on the Hermes Kafka topic.
5. The Stream Connect pushes the event in the Hermes Kafka cluster.
6. The customers can consume the message in their in-house Kafka.

Related topics

[EventProcessorUtilOOB - Scoped](#) 

[EventQueueProcessorOOB - Scoped](#) 

Outbound trouble ticket notifications via open message bus


Produce an outbound notification from the ServiceNow instance using the open message bus. Customers can consume the details of the notification from the message bus in their external system.


In this event-driven architecture, the notifications are produced to the open message bus from your ServiceNow instance. The framework contains topic synchronization and topic picker mechanisms. The topic synchronization mechanism synchronizes the topics that you have created in the ServiceNow instance with the open message bus. When the event occurs in the framework, the topic picker mechanism picks the relevant topic and publishes the message to the topic using a REST proxy. Customers can consume the outbound notification from the message bus in their external system.

In the Australia release, the following events are supported for trouble ticket notification.

- Create Trouble Ticket Event
- Trouble Ticket State Change Event
- Trouble Ticket Attribute Change Event
- Create Trouble Ticket Event for Case

Prerequisites


Before producing outbound notifications, it's necessary to create the egress topics on the Topic [sn_api_notif_mgmt_topic] table in the ServiceNow instance. When you create an egress topic, the system runs a business rule and attempts to synchronize the topic to the message bus based on configuration. To learn more about manually creating a topic in the Topic table, see [Create a topic](#) . The system synchronizes only the egress topic with the message bus in the external system. The **user_created** field in the associated topic record is set to true.

Alternatively, you can create the topics on the message bus in your external system and push them into the Topic table in ServiceNow instance. The customers invoke the *Event Management Topic Open API* endpoint, which stores the topic in the Topic [sn_api_notif_mgmt_topic] table of ServiceNow instance. The **user_created** field in the associated topic record is set to false. To learn more about the methods that are used when processing the *Event Management Topic Open API* endpoint, see [Event Management Topic Open API](#) .

Workflow

The workflow for producing the outbound notification by using the open message bus contains the following steps:

1. On the trigger of the trouble ticket event, the system invokes the appropriate business rule, and stamps the event type.

To learn more about the business rule that you must add to your ServiceNow instance, see [Add a business rule for a new trouble ticket event](#) .



2. The system pushes the Glide snapshot and event type in the staging table, which acts as a queue.
3. The producer framework picks the event and converts it to a TMF 688 complaint event payload.

To learn more about the producer framework, see [Using the producer framework for outbound notifications](#).

4. The topic picker mechanism determines the topics, which are compatible with the event type. Topic picker performs the following steps to check the compatibility of the topics:
 - a. The System scans the topics that have the **Type** field set as **Egress** in the topic table.
 - b. The system checks the header query and content query of all egress topics and matches the compatibility with the event payload.

To learn more details about how to customize the existing topic picker mechanism, see [OpenMessageBusEventPublisherOOB - Scoped](#) .

5. The system sends the list of compatible topics and event payload to the spoke selector.
6. The spoke selector, which the customer has configured, invokes the REST step that is configured for each topic and sends to the message bus REST Proxy in the external system.

To learn more about the method for sending messages to the spoke selector, see [OpenMessageBusEventPublisherOOB - Scoped](#)  and [Configure the Producer Event Notification Framework to use the Open Message Bus](#) .

7. The customers can consume the message in their message bus REST Proxy.

Related topics

[EventProcessorUtilOOB - Scoped](#)

[EventQueueProcessorOOB - Scoped](#)

[External event management via Telecommunications API notifications](#)

Using the producer framework for outbound notifications

The producer framework picks the event from the ServiceNow instance and sends the outbound notification to the external system. You can consume the details of the notification from the messaging service that is installed in your external system.

System properties

You must configure the system properties to use the producer framework for outbound notification. The following table explains the list of system properties that are set for the scheduled jobs.

Producer framework system properties

Property	Description	Type
sn_api_notif_mgmt.event.log	<p>Level of logging to be written to the debug logs. You can select the following logging levels:</p> <ul style="list-style-type: none"> • emerg: Total failure. • alert: System corruption of a database, for example. • crit: Typically used for hardware errors, for example. • err: Any errors. • warning: Any warnings • notice: Possible action required but not essential. • Info: No action required. • debug: Generally not used except for capturing everything for fault-finding. <p>Default value: err</p>	String
sn_api_notif_mgmt.publisher_messages	<p>Defines the configurations are published using the Hermes Messaging Service, the Open Message Bus, or both message buses. You can use the following values:</p>	String

Producer framework system properties (continued)

Property	Description	Type
	<ul style="list-style-type: none"> • openMessageBus • hermes • both <p>Default value: openMessageBus</p>	
<p>sn_api_notif_mgmt.inboundqueue.maxrecords</p>	<p>Maximum number of records that the scheduler will pull from the inbound queue for one scheduler run. This value is used in conjunction with the <i>sn_api_notif_mgmt.inboundqueue.batch.limit</i> parameter.</p> <ul style="list-style-type: none"> • Default value: 200 • Other possible values: As needed <p>For example, if the batch limit is set to 50 and the maxrecords is set to 200, and if the number of records that are in the inbound queue is 130, then the scheduler would pull three different batches of records in a single run; two with 50 records and one with 30 records. If the number of records in the inbound queue is 220, the scheduler would pull four batches of 50 records and the remaining 20 records would not be processed until the next time the scheduler runs.</p> <p>When setting this value, you must also consider the time that it will take for the scheduler to process multiple batches and set the <i>sn_api_notif_mgmt.schedule.max.runtime</i> value accordingly.</p>	<p>Integer</p>
<p>sn_api_notif_mgmt.inboundqueue.batch.limit</p>	<p>Number of records that the scheduler pulls and processes from the inbound queue at one batch.</p>	<p>Integer</p>

Producer framework system properties (continued)

Property	Description	Type
	<ul style="list-style-type: none"> • Default value: 200 • Other possible values: As needed 	
sn_api_notif_mgmt.glide.mutex.maxspin	<p>Maximum number of attempts to acquire a mutex lock in the inbound queue records.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100 • Other possible values: As needed 	Integer
sn_api_notif_mgmt.schedule.maxtime	<p>The maximum time, in milliseconds, that the scheduled job can run before it fails and reports an error.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 90000 • Other possible values: As needed 	Integer
sn_api_notif_mgmt.glide.mutex.sleep	<p>Minimum wait, in milliseconds, to wait between attempts to acquire a mutex lock on the records in the inbound queue.</p> <ul style="list-style-type: none"> • Type: Integer • Default value: 100 • Other possible values: As needed 	Integer


Producer framework workflow

When the system pushes an event to the staging table, the following steps take place as part of the producer framework mechanism:

1. The scheduler picks a number of records at a preconfigured interval and then sends Glide snapshots to the event processor.
2. The system converts the Glide snapshot to a TMF 688 complaint event payload based on the event type.

To learn more about the methods used to define and generate the TMF-compliant payloads for trouble ticket events, see [TopicAPIUtilsOOB - Scoped](#).

3. The system checks whether the notification configuration is intended for Hermes Kafka or the open message bus.

To learn more about configuring the producer event notification framework, see [Producer Event Notification Framework developer guide](#) .

Related topics

[Producing outbound API notifications using Hermes](#)

[Outbound trouble ticket notifications via open message bus](#)

Deactivate API notification

Disable the business rules related to the incident and case tables to stop receiving trouble ticket notifications. Customers can disable the business rules if they don't want to leverage the trouble ticket notification capability.

Before you begin

Role required: admin

Procedure

1. Navigate to **All > System Definition > Business Rules**.
2. Select the following business rules, and deselect the **Active** check box.
 - Create Trouble Ticket Event
 - Trouble Ticket State Change Event
 - Trouble Ticket Attribute Change Event
 - Create Trouble Ticket Event for Case