

# Oracle Fusion Service

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**Implementing Service Center with  
the Classic User Experience**



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# 1 About This Guide

## Audience and Scope

This guide is intended for you if you're responsible for implementing Oracle Fusion Service.

This guide doesn't cover the implementation activities for Oracle Fusion Sales.

To set up and work with the additional features of Oracle Fusion Sales, see the documentation on Oracle Help Center at <https://docs.oracle.com>.

## Related Guides

To understand more about the implementation tasks covered in this guide, you can refer to the following table for a list of related guides.

Title	Description
<i>Oracle Fusion Service Using Service Center in the Classic User Experience</i>	Contains information to help service managers, service personnel, and other service end users to perform day-to-day business tasks using Oracle Fusion Service.
<i>Oracle Fusion Service Administering Knowledge Management</i>	Describes how administrators can perform knowledge management maintenance and ongoing operations tasks.
<i>Oracle Fusion Service Integrating Fusion Service with Oracle Field Service</i>	Outlines the implementation and configuration steps required to integrate, create, and update processes on service work orders in Oracle Fusion Service with activities in Oracle Field Service.
<i>Oracle Fusion Cloud Sales Automation Implementing Customer Data Management for Sales and Fusion Service</i>	Contains information to help implementors define the setup for managing customer information and the configuration for customer hub deployment.
<i>Oracle Fusion Cloud Sales Automation Implementing Enterprise Contracts</i>	Contains conceptual information and procedures needed to implement the contract management features of Oracle Fusion Sales.
<i>Oracle Fusion Cloud Sales Automation Implementing Sales</i>	Contains conceptual information and procedures needed to implement components and features of Oracle Fusion Sales.
<i>Oracle Fusion Cloud Understanding Import and Export Management for Sales and Fusion Service</i>	Contains information to help those charged with exporting and importing object data.
<i>Oracle Fusion Cloud Securing Sales and Fusion Service</i>	Contains information to help setup users and sales administrators configure access to Oracle Fusion functionality and data.

Title	Description
<i>Oracle Fusion Cloud Security Reference for Sales and Fusion Service</i>	Lists the predefined security data included in the Oracle Fusion offerings.

## Overview of Implementing Service

To start implementing Service, a user with the Application Implementation Consultant role (ORA\_ASM\_APPLICATION\_IMPLEMENTATION\_CONSULTANT\_JOB) must opt into the offerings you want to use.

### Service Offering

With this offering, you set up service components and features of Oracle Fusion Service.

The following table shows the primary functional areas of the Service offering. For the full list of functional areas and features, see the Associated Features report that you review when you plan your implementation.

Functional Area	Description
Service Request	Manage lookup values for SRs, for example severity, status, or priority values. You can opt into auditing of service requests, or change default action for areas such as assignment, auto-close, and default values.
Service Catalog	Manage the product hierarchy used for categorizing the product of a service request.
Communication Channels	Manage the channels you use to communicate with customers, configure each channel, and manage the Omnichannel toolbar and assignment rules.
Digital Customer Service	Manage profile options and self-service authentication, configure user and job role setup, configure role synchronization, and view synchronization reports.
Service Entitlements	Manage the configuration of milestones tracked for service requests.
Work Order	Configure generic work orders, Service to Field Service Cloud integration, and integrated work orders. Manage work order types for work orders corresponding to activity types, set the profile options for work orders, and manage work order types.
Productivity Tools	Manage settings for the tools that make agents more productive, including global search, collaboration, standard text, and keyboard shortcuts.
Knowledge Management	Enable knowledge management features, set up locales and users, and create and manage the knowledge base for authors, agents, and external users.

Functional Area	Description
Action Plans	Associate action plans with service requests to help facilitate a series of steps or a sequence of events that may be required to resolve SRs.
Business Units	Set profile options to enable the multi-BU functionality, define and add internal resource organizations, create business units, and BUs associated with resource organizations.

*Related Topics*

- [Plan Your Implementation](#)
- [Using Functional Setup Manager](#)



# 2 Profile Options, Lookups, and Scheduled Processes for Service Requests

## What are Profile Options, Lookups, and Scheduled Processes?

Profile options, lookup types, and scheduled processes let you configure application behavior and process data.

Briefly, here's what profile options, lookup types, and scheduled processes do:

- Profile options: Let you configure the application behavior.
- Lookup types: Provide the lists of values in applications. Many lookup types can be modified to fit your business needs.
- Scheduled processes: Act on data in the applications.

Get additional information on profile options, lookup types, and scheduled processes in this chapter and in the related topics.

### Related Topics

- [What are the scheduled processes?](#)
- [How can I access predefined profile options?](#)
- [How can I access predefined lookups?](#)

## Overview of Profile Options

Profile options let you configure and control application data centrally. Administrators and setup users manage profile options in the Setup and Maintenance work area.

Profile options store various kinds of information. This table lists some examples:

Type of Information	Profile Option Setting Example
User preferences	Set preferences at the user level
Installation information	Identify the location of a portal
Configuration choices	Change UI skins and actions
Processing options	Determine how much information to log

Type of Information	Profile Option Setting Example
Enabling the Activity Stream	Enable agents to see the Activity Stream

## Profile Option Hierarchy Levels

Profile options can be set at different levels, such as site level or user level. The application gives precedence to certain levels over others, when multiple levels are set. The levels that are allowed to be set are preconfigured with the application.

In the predefined profile option levels, the hierarchy levels and their precedence are:

1. **Site:** This level affects all applications for a given implementation. The application gives it the lowest precedence when other levels are set. If no other levels are set, however, it's the highest level.
2. **Product:** This level affects a product or product family. The application gives it priority over Site level. However, if the user level is set, the user level takes precedence.
3. **User:** This level affects only the current user. It has the highest precedence, over Site and Product.

As a best practice, set site-level profile option values before specifying values at any other level (where available). The profile option values specified at the site-level work as the default until profile option values are specified at the other levels.

This table shows an example of the predefined profile option hierarchy levels and their priorities.

Level	Priority	Example
Site	Lowest	Currency for a site is set to Euros.
Product	Supersedes Site	Currency for the product or set of products is set to UK pound sterling.
User	Highest, supersedes Product	Currency for a user is set to US dollars.

You can find additional information about profile options in the related topics.

### Related Topics

- [Set Profile Option Values](#)
- [How can I access predefined profile options?](#)

## Lookup Types

Lookup types provide the lists of values in application fields that are drop-down lists.

For example, while creating a service request, service personnel can select the severity of the SR from the Severity drop-down list. The values in that list are derived from the lookup type, ORA\_SVC\_SR\_SEVERITY\_CD. This lookup type has several potential values known as lookups, each with their own unique lookup code and meaning that displays in the UI.

**Note:** You can't create a new lookup with the name starting with ORA, to avoid any conflict with the lookups seeded in the application.

## How You Modify Lookup Types

You can modify many lookup types during or after implementation.

The configuration level of a lookup type determines whether the lookups in that lookup type can be edited. The lookup configuration levels are: User, Extensible, and System.

Here's a table that shows which lookup management tasks are allowed at each modification level.

Allowed Task	User	Extensible	System
Deleting a lookup type	Yes	No	No
Inserting new codes	Yes	Yes	No
Changing the wording that displays on the page (Meaning field)	Yes	Yes	Yes
Updating start date, end date, and enabled fields	Yes	Yes, only if the code isn't predefined data	No
Deleting codes	Yes	Yes, only if the code isn't predefined data	No
Updating tags	Yes	No	No
Updating module	Yes	No	No

If a product depends on a lookup type, the configuration level must be set to system or extensible to prevent deletion. Once the configuration level is set for a lookup type, it can't be modified. The configuration level for lookup types created using the Define Lookups page is by default set at the User level.

## Service Lookup Types

You can find lookup types by searching for an associated setup task in the Setup and Maintenance work area. Lookup types are grouped by task or task list. Each task or task list provides access only to certain lookup types. However, the generic tasks provide access to all the lookups types of a kind, such as all common lookups that are associated with the Manage Common Lookups task. Lookups defined for a specific application are managed using a task or task list associated with that application. Here are some of the common Service lookup tasks or task lists:

- Define Service Request Lookups
- Manage Contact Lookups
- Manage Customer Center Lookups
- Manage Service Request Severity

- Manage Service Request Channel Types

#### Related Topics

- [Why can't I see my lookup types?](#)
- [How can I access predefined lookups?](#)

## Modify Lookups

Administrators can modify lookups for service requests . Optionally, you can map status values to status types. By default, the following five Status types exist for service requests:

- New
- In Progress
- Waiting
- Resolved
- Closed

A service request always has one of these status types. However, administrators might want to display different labels for status types or change the display sequence. For example, this might be useful in situations where you want to distinguish between statuses such as "In Progress - Troubleshooting" versus "In Progress - Repairing." This procedure maps one or more Statuses to status types.

The following tasks are used to modify the service request lookups:

- Manage Service Request Internal Priorities
- Manage Service Request Sources
- Manage Service Request Resolutions
- Manage Service Request Outcomes and Resolutions
- Manage Service Request Severities
- Manage Service Request Channel Types
- Manage Service Request Channel Type Visibility
- Manage Service Request Problem Types
- Manage Service Request Contact Relationship Types
- Manage Service Request Status Values
- Manage Service Request Profile Options
- Manage Service Request Categories
- Manage Service Request Knowledge Profile Options
- Manage Service Request Parts Order Disposition Options

To modify lookups:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Service Request

- Task: Select all tasks and click the task you want to modify.
- 2. In **Lookup Codes**, click the lookup code that you want to modify.
- 3. Modify the fields to correspond to your needs.
- 4. Click **Save and Close**.
- 5. Repeat the procedure for all of the service request lookup tasks.

The service request lookup is modified.

#### Related Topics

- [How do I update existing setup data?](#)

## Modify Channel Type Visibility

Customer administrators can disable channels that should not be displayed in the application when an agent composes a message of type customer entry or response.

1. Sign in to your Fusion application as a setup user or administrator.
2. In the Setup and Maintenance work area, go to the **Tasks** panel tab.
3. Search for and click the **Manage Service Request Channel Type Visibility** task.
4. On the Manage Service Request Channel Type Visibility page, if you don't see the channels you want to disable, click Sync on the toolbar of the table.
5. For any channel that you select, you see two rows with different values for **Property Name**:
  - **Enabled for Collaboration**: To enable the selected channel to collaborate with subject matter experts to resolve customer issues, set the **Property Value** for this property name to **Yes**.
  - **Enabled for Customer Interaction**: To enable using the selected channel for interaction of your service agents with your customers, set the **Property Value** for this property name to **Yes**.

**Note:** You can also use the drop-down list in the toolbar for the **Property Name** field to filter the list by each property name.

6. Set the **Property Value** to **No** to disable the selected channel.

**Note:**

- For messages of type **Customer Entry** and **Response**:
  - SMS and Slack channels are disabled by default because they aren't supported for customer communications. You can enable or disable the other channels.
  - Although the Social channel is disabled by default, Social channels are visible to agents if the SR is created for a social post using the social channel integration. For other SRs, the Social channels are disabled. Oracle recommends that you keep this channel disabled.
- For messages of type **Forward**, only the Email and Slack channels, and custom channel types created by the customer are supported. You have the option to disable the channel types that you want to hide for **Forward**. For example, if you don't use Slack in your organization, you can disable Slack.

7. Click **Save and Close**.

The disabled channels aren't displayed when an agent composes a message.

## FAQs for Lookups and Lookup Types

### Frequently Asked Questions (FAQs) for Lookups and Lookup Types

This section contains some frequently asked questions (FAQs) when setting up and maintaining Lookups and Lookup Types. Scroll or search to find answers to common questions.

#### How can I edit lookups?

On any of the Manage Lookups pages, you can edit the existing lookup codes of a lookup type or add new lookup codes. You can edit lookups using the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set Enabled Lookups

Each task contains a predefined set of lookup types that are classified and stored. Open a task to search and edit the required lookup. However, you may not be able to edit a lookup if its configuration level doesn't support editing.

#### Why can't I see my lookup types?

Lookup types are classified using tasks that involve a group of related lookups, such as Manage Geography Lookups. Each task gives you access only to certain lookup types.

However, the generic tasks provide access to all lookup types of a kind, such as common lookups associated with the Manage Common Lookups task. If the lookup types in an application are available in the standard, common, or set-enabled lookups view, they're central to an application. However, lookup types defined for a specific application are managed using the task for that application.

#### Can I create a new lookup name starting with ORA?

No, you can't create a new lookup with the name starting with ORA. The application validates the lookup names to avoid any conflict with the lookups seeded in the application.

## What are the scheduled processes?

Scheduled processes do tasks that are too complex or time-consuming to do manually, for example importing data or updating many records. You can run scheduled processes on a recurring schedule and send notifications based on how the process ends.

Some scheduled processes give you printable output. Those processes might have **Report** in their name.

Use the Scheduled Processes work area to run all the processes you have access to and to manage submissions. If you need access to this work area, ask your security administrator to assign you a role that gives you access, for example a custom role with the the Manage Scheduled Processes (FND\_MANAGE\_SCHEDULED\_PROCESSES\_PRIV) privilege. Other than the Scheduled Processes work area, you might be also able to run certain processes from other work areas.

## Jobs and Job Definitions

Each scheduled process that you run is based on a job. The job is the executable that controls what the process does. Each job needs a job definition, which, for example, determines the parameters and other options you have for the process. You or your administrator can create job definitions for Oracle Analytics Publisher reports so that users can run the reports as scheduled processes.

## Process Sets

A process set is a scheduled process that contains multiple processes or even other process sets. So, when you submit a process set, you're running more than process.

**Note:** When you submit certain scheduled processes, the job logic causes other processes to automatically run. But in this case, you're not submitting a process set that includes those other processes.

## Submission

When you submit a scheduled process, you can use its parameters to control how, and which records are processed. For example, a process includes only the transactions that were edited by the person you select for a Last Updated By parameter. Some scheduled processes don't have parameters.

As part of the submission, you can also set up a schedule for the process, for example to run once a week for two months. Every time a process runs, there's a unique process ID.

## Output

Some scheduled processes provide output in PDF, HTML, and other formats. For example, a process can import records and also produce output with details about those records. There are many types of output, for example a tax document or a list of transactions.

# Profile Options and Scheduled Processes for SR Management

## What are the SR profile options?

Service request profile options let you configure and control application data. Administrators and setup users can manage SR profile options in the Setup and Maintenance work area.

You can set various profile options and schedule job processes for service requests. Some of the profile options must be used along with job processes to achieve the results you want. For example, after setting the profile value for closing a resolved SR after N number of days, schedule a job process that closes SRs.

The following table describes the various profile options for service request management. For more information on scheduled processes, refer to *What are the scheduled processes?*

Profile Option	Description
SVC_ENABLE_AUDIT_IN_SR	Enables or disables auditing of field value changes.
SVC_ASSIGN_TO_QUEUE_ON_CREATE	<p>Assigns an SR to a queue automatically, when the SR is created.</p> <p><b>Note:</b> The preferred way of assigning an SR to a queue is by using Omnichannel assignment. If Omnichannel is enabled, this profile option is ignored.</p>
SVC_SR_IN_RESOLVED_DAYS	<p>Defines the number of days after which any resolved SR is automatically closed. This profile option must be used along with the <i>Auto-Close Service Requests</i> job process.</p> <p>Make sure the following two conditions are met:</p> <ul style="list-style-type: none"> <li>The SVC_SR_IN_RESOLVED_DAYS profile value must be set to 1 or greater for the Auto-Close Service Request job to run.</li> <li>The SVC_SR_IN_RESOLVED_DAYS profile value must be set to 0 to disable the Auto-Close Service Request job.</li> </ul>
SVC_SR_IN_WAITING_DAYS	<p>Defines number of days for which a service request must be in Waiting status before the SR is auto resolved. This profile option must be used along with the <i>Auto-Close Service Requests</i> job process.</p> <p>Make sure the following two conditions are met:</p> <ul style="list-style-type: none"> <li>The SVC_SR_IN_WAITING_DAYS profile value must be set to 1 or greater for the Auto-Close Service Request job to run.</li> <li>The SVC_SR_IN_WAITING_DAYS profile value must be set to 0 to disable the Auto-Close Service Request job.</li> </ul>

Profile Option	Description
SVC_AUTO_CLOSED_STATUS_CD	Defines the status code to use for auto-closing service requests that have been in Resolved status for at least the number of days specified by SVC_SR_IN_RESOLVED_DAYS. This profile option must be used along with the <i>Auto-Close Service Requests</i> job process.
SVC_AUTO_RESOLVED_STATUS_CD	Defines the status code to use for auto-resolving service requests that have been in Waiting status for at least the number of days specified by SVC_SR_IN_WAITING_DAYS. This profile option must be used along with the <i>Auto-Close Service Requests</i> job process.
SVC_PUID_FORMAT	<p>Defines the format for the unique reference number on each SR.</p> <p>Every SR number consists of a prefix and radix. Let's say that you select SR_ as the prefix and No alphanumeric conversion as the radix. Without this formatting profile option, the SR numbers are generated as SR_1, SR_2, and so on. Now suppose you use this formatting profile option and the value is 000000. Then the SR numbers are generated as SR_000001, SR_000002, and so on.</p> <p>For more information about configuring the prefix and radix, refer to <a href="#">How do I configure the prefix and radix?</a></p> <p><b>Note:</b> The SVC_PUID_PREFIX profile option used earlier no longer exists.</p>
SVC_SR_DEFAULT_SEVERITY_CD	Sets the default Severity value for a new SR. You can also set this value as blank, if you want the SRs to be created without a Severity value.
SVC_SR_DEFAULT_STATUS_CD	Sets the default Status code for a new SR.
SVC_SR_IN_DELETED_DAYS	<p>Defines the number of days after which a deleted SR is purged. Although a soft deleted SR is in the database, it can't be retrieved or updated from the UI or REST APIs. Once purged, SRs are completely removed from the database. This profile option must be used along with the <i>Purge Deleted Service Requests</i> job process to purge SRs.</p> <p>When a soft-deleted SR created from an inbound email is purged, all data associated with that SR is also purged from the inbound message tables.</p>
SVC_INBOUND_ENABLE_FAILED_MESSAGE_PURGE	Enables or disables purging of inbound messages that fail or aren't processed successfully. When the value is set to Yes, the purge job deletes the records corresponding to such messages from the inbound message tables.
SVC_ATTACHMENT_UI	<p>Defines the attachment view for an SR. There are two types of attachment options you can provide:</p> <ul style="list-style-type: none"> <li>• <b>Classic:</b> Enables users to select the type of attachment, category, and enter the name and description for each attachment.</li> <li>• <b>Basic:</b> Enables users to only select file type, browse and upload attachments to the SR.</li> <li>• <b>Advanced:</b> Enables users to select the type of attachment, category, and enter the name and description for each attachment. You can also upload files with the drag-and-drop feature, or extract all files after they're uploaded.</li> </ul>
ORA_SVC_ENABLE_DOWNLOAD_ATTACHMENT	<p>This profile option has two settings. Yes (default) and No. If the profile option is set to Yes, attachments are allowed to be downloaded.</p> <p>To prevent users from being able to download attachments from a Service Request and a Service Request Message, do the following:</p>

Profile Option	Description
	<ol style="list-style-type: none"> <li>1. Set the ORA_SVC_ENABLE_DOWNLOAD_ATTACHMENT profile option value to <b>No</b>.</li> <li>2. Copy the Service Request Troubleshooter role.</li> <li>3. Copy the Customer Service Representative role.</li> <li>4. Edit the custom Service Request Troubleshooter role and delete the Download Attachment of an SR or SR Message privilege.</li> <li>5. Edit the custom Customer Service Representative role and delete the three Service Request Troubleshooter roles and add the custom Service Request Troubleshooter role.</li> <li>6. Add the custom Customer Service Representative roles to the users who should not be allowed to download attachments.</li> </ol>
SVC_EVENT_HISTORY_DAYS_TO_KEEP	Specifies the number of days for which the SR event history details such as update and create must be retained. The data beyond this value is purged.
SVC_INBOUND_MSG_RETENTION_DAYS	Specifies the number of retention days for successfully processed inbound messages. After the specified number of retention days, the successfully processed inbound messages are deleted from the inbound message tables.
SVC_ENABLE_MESSAGE_CORRECTION	Enables you to edit the text of the Internal Note and Customer Entry SR messages that you have previously created and posted.
SVC_ENABLE_RESOLVE_SR	<p>Enables the ready-to-use workflow for resolving a service request. This profile option is disabled by default. When enabled, the <b>Resolve</b> link is displayed in the <b>Actions</b> menu. Clicking <b>Resolve</b> displays a dialog box that captures the service request outcomes and resolutions, and enables you to enter resolution notes.</p> <p><b>Note:</b> If this profile option isn't enabled, you can still manually set the service request status to <b>Resolved</b>.</p>
SVC_HIDE_HIERARCHY_FOR_CUST_ENTRY_AND_RESPONSE	<p>Displays the customer messages (SR messages of type Customer Entry and Response) on an SR as a flat structure, in reverse chronological order, without showing the message hierarchy.</p> <p>Default value is No, which displays the SR messages in an hierarchical format.</p>
SVC_ENABLE_SEVERITY_COLOR_IN_SR	Enables the color code for the service request severity set up in the Manage Service Request Severities task, if set to Yes. The task Manage Service Request Severities allows you to add different severity levels for service requests and define different colors.
ORA_ENABLE_QUEUE_MEMBER_NOTIFICATIONS	<p>Enables selecting all queue members as notification recipients, on the Notification Preferences page. Performance may be impacted if you have a large number of queue members and use this option.</p> <p>Default value is No.</p>
ORA_SVC_DELETE_CLOSED_SR_ENABLED	Enables automatic deletion of an SR that has been closed for at least the number of days specified by the ORA_SVC_CLOSED_SR_RETENTION_DAYS profile option. This profile option must be used along with the Delete Closed Service Requests job process.
ORA_SVC_CLOSED_SR_RETENTION_DAYS	Defines the number of days for which a service request must remain closed before it's deleted. Deletion can't be undone. This action is applicable only when the Delete Closed Service Requests Enabled profile option is set to Yes. This profile option must be used along with the Delete Closed Service Requests job process.

Profile Option	Description
ORA_SVC_SLA_INCLUDE_PAUSED_MINS_IN_TIMEREMAINING	<p>Specifies whether the time remaining field should consider the time spent in a paused state for milestones that are overdue but still not complete.</p> <p>Excluding paused minutes ignores whether the milestone has paused after expiration, and results in a more accurate calculation of actual time elapsed as well as improved performance.</p> <p>Including paused minutes considers how much time was spent in the paused state after expiration and reduces the overdue time remaining value by that amount. This requires additional calculation, is less consistent with the calculation before expiration, and can impact performance.</p> <p><b>Note:</b> The default value is Y, which considers paused time after expiry. Beginning with release 23D, this profile option value will be set to N, reverting the calculation back to a straight time calculation ignoring paused minutes, which is more consistent with the calculation before expiry and improves performance. While Oracle recommends all that you exclude paused minutes, the Y option will remain for backward compatibility.</p>

## How do I configure the prefix and radix?

When a service request (SR) is created, a unique number or ID is generated for it by the application.

Users can't easily read or use these unique IDs because of their length and complexity. As an administrator, you can configure the unique ID that's generated to make it more user-friendly, readable, and specific to your requirement.

This user-friendly value called the public unique ID consists of a prefix and a radix, and you can configure both of them. For example, SR\_0000027413 is a configured public unique ID, where SR\_ is the prefix and 0000027413 is the radix or suffix.

To configure the prefix and radix for SRs:

1. Sign in to the application as a setup user or administrator.
2. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Productivity Tools
  - o Task: Manage Public Unique Identifier Sequence Generation
3. On the Manage Public Unique Identifier Sequence Generation page, for the Service Request **Object Name**, specify a prefix of your choice in the **Prefix** column. For example: SR-.
4. Click in the **Radix** column for the Service Request object.
5. From the multiple options displayed in the drop-down list, select the type of radix that you want for your SRs .

This option determines the radix value of the request number. To format the autogenerated radix value, you can configure the SVC\_PUID\_FORMAT profile option as described in the "Profile Options for SR Management" topic.

**Note:** For more information about the types of public unique IDs, see the Oracle Fusion Cloud Sales Automation Implementing Sales guide.

6. Click **Save and Close**.

## Permit SR Contacts that Aren't Related to the Primary SR Account

If you're using the application to serve a customer with an account hierarchy with multiple subsidiaries, it's possible that the primary contact on an SR may be from a different subsidiary than the primary customer account. Or, you may have a third party who has the permissions to report an SR and also interact with the SR. For example, an implementor or partner contact, or a private contractor.

In such scenarios, you would want to remove the built-in validation that requires the SR account and SR contact to be interrelated. And you can permit the following types of primary and secondary contacts on an SR:

- Contacts that belong to multiple accounts
- Contacts with no account
- Contacts associated with a partner account
- All of the above

You can do this by configuring the following profile options.

Profile Option	Description
ORA_SVC_ALLOW_ANY_CONTACT_ON_SR	Specifies whether contacts that aren't related to the SR can be added to an SR. This includes contacts of other accounts, consumer contacts, and partner contacts. The default value is No.
ORA_SVC_DEF_ACCESS_FOR_3RD_PARTY_CONTACTS	Specifies the default access level for third party contacts to view the contents of an SR. The default value is No Access.  If you set the value to Regular Access, third party contacts can view an SR. So, contacts who are added to the SR but don't belong to the SR account can view the SR in Digital Customer Service.

## SR Management Scheduled Processes

You can set various profile options and schedule job processes for service request (SR) management.

You must use some of the profile options along with the job processes to achieve the results you want. For example, when you set the profile value for closing a resolved SR after N number of days, also schedule a job process that closes SRs. Run scheduled processes to manipulate a set of records for a specific business need, or to get printable output with information about certain records. Some processes do both, for example, to import records and provide a report about them.

Here's a table that describes the job processes you can schedule to manage SRs. For more information about SR scheduled processes, see the Understanding SR Scheduled Processes guide on Help Center.

Job Process Name	Description
Auto-Close Service Requests	Closes service requests that were resolved a certain number of days ago, and resolves service requests that have been in waiting status for a certain number of days. The number of days for both the

Job Process Name	Description
	<p>scenarios is set using the SVC_SR_IN_RESOLVED_DAYS and SVC_SR_IN_WAITING_DAYS profile options respectively.</p> <p><b>Note:</b> When an SR is closed by this job process, the Status field on the SR can be audited.</p>
Purge Deleted Service Requests	Purges service requests and their child records that were deleted a certain number of days ago. The number of days is set using the SVC_SR_IN_DELETED_DAYS profile option.
Purge Inbound Messages	<p>Purges the successfully processed messages from the inbound message database tables, based on the retention days specified in the SVC_INBOUND_MSG_RETENTION_DAYS profile option.</p> <p>If the SVC_INBOUND_ENABLE_FAILED_MESSAGE_PURGE profile option to set to Yes, this job also purges inbound messages that failed or weren't processed successfully.</p>
Load and Update Cloud Metrics for Service	Performs incremental loading and updating of usage and business metrics that are targeted to cloud usage patterns.
Service Request Queue Assignment	<p>Assigns queues to service requests. This job takes the following parameters:</p> <ul style="list-style-type: none"> <li>• <b>Work Object Code:</b> Indicates business objects that get assigned to agents, such as, service requests. Expected Value: <code>ORA_Service_Request_Work_Object</code></li> <li>• <b>Candidate Object Code:</b> Indicates objects that are the possible pool of assignment candidates, such as queues. Expected Value: <code>ORA_Queue_Candidate_Object</code></li> <li>• <b>Assignment Mode (List of Values: Classification, Matching, Scoring, Territory):</b> Indicates the type of assignment processing. Matching is the only mode that's supported.</li> <li>• <b>View Criteria Name:</b> Indicates the view criteria used to identify the service requests to be assigned. Expected Value: <code>OpenSRsUnassignedToQueueByStripeCd</code></li> <li>• <b>Bind Variable:</b> Indicates the bind variables required for the view criteria. Expected Value: <code>BindStripeCd=ORA_SVC_CRM</code></li> <li>• <b>Metrics Logging Interval (default value is 100):</b> Indicates the number of work objects in a subprocess before logging assignment metrics, such as update metrics after processing 100 SRs. This is used if your object support Enterprise logging for assignment.</li> <li>• <b>Diagnostic Mode (check box):</b> Indicates if the process must be run in diagnostic mode to view the details of assignment processing in an output log.</li> </ul> <p><b>Note:</b> The preferred way of assigning an SR to a queue is by using Omnichannel assignment.</p>
Service Configuration Setup	Schedules service setup jobs, such as metrics. This job must be run once during implementation. Ensure that you run this job before you create service requests.
Aggregate Service Requests	Enables querying service request data for reporting, using the CRM - CRM Service Request Summary subject area. The recommended frequency for running this job is one hour.

Job Process Name	Description
	<p><b>Note:</b> If you need faster data refreshes, increase the frequency. However, this impacts the performance of the transaction system.</p>
Monitor Service Request Milestones	Ensures that the service request and milestone status are up-to-date and sends an email notification if compliance issues or warning flags are found.
Purge Service Event History	Evaluates the processed records and retains the data for the days specified in the profile option SVC_EVENT_HISTORY_DAYS_TO_KEEP, while it purges the rest. The recommended frequency for running this job is daily.
Monitor Action Plan Actions	<p>Evaluates the status of an action plan.</p> <p>The recommended frequency for running this job is 15 minutes.</p> <p><b>Note:</b> If you need faster data refreshes, increase the frequency. However, this impacts the performance of the transaction system.</p>
Execute Incremental Load of Cross-Channel Interaction Data for Reporting	Incrementally loads cross-channel interaction data, for reporting using the CRM - CRM Interaction Aggregate subject area. You must run this job daily to load and update the new data everyday.
Execute Full Load of Cross-Channel Interaction Data for Reporting	<p>Fully loads cross-channel interaction data, or refreshes the data based on a particular date, for reporting using the CRM - CRM Interaction Aggregate subject area. This is an on-demand job. You must run this job in the following scenarios:</p> <ul style="list-style-type: none"> <li>• The first time data is loaded.</li> <li>• Any time the data needs to be refreshed from a specific date.</li> </ul>
Refresh Service Categories for Reporting	Generates the service category hierarchy and stores it in the SVC_CATEGORIES_CF table in a flattened form for ease of reporting. Service category attributes in all service request subject areas obtain data from this table. This process needs to be scheduled to pick up changes to the service category hierarchies to ensure accurate reporting. The recommended frequency for running this job is 1 hour.
Migrate Service Business Unit Data	<p>Migrates the following business objects from one business unit (BU) to another:</p> <ul style="list-style-type: none"> <li>• Category</li> <li>• Channel</li> <li>• Milestone Configuration</li> <li>• Service Request</li> </ul>
Execute Incremental Load of SR Audit Data for Reporting	Incrementally loads service request audit data added since the previous run of the process. Use this job to create business intelligence reports using the Service - CRM Service Request Lifecycle subject area. The recommended frequency for running this job is hourly.
Unlock Scheduled Process that Incrementally Loads SR Audit Data	Removes the process lock created by the <b>Execute Incremental Load of SR Audit Data for Reporting</b> scheduled process, when that process fails to remove its lock automatically.

Job Process Name	Description
	This process should be run only if the <b>Execute Incremental Load of SR Audit Data for Reporting</b> scheduled process is unable to start, and no other instance of that process is currently running.
Purge Obsolete User Preferences	Removes the user notification preferences data of invalid users, in case the resources leave your company or are no longer active. This scheduled process lets your organization ensure that your data on user notification preferences isn't stale.
Purge Obsolete Notification Followers	Removes inactive and end-dated users from following the service request, so that the application doesn't get overloaded with stale data. This scheduled process lets you evaluate whether a resource is still valid and enabled to follow specific service requests.
Delete Messages from External Email Applications	This scheduled process deletes inbound email on the Exchange Server.
Delete Closed Service Requests	This scheduled process deletes closed service requests which have been closed for at least the number of days specified by the <code>ORA_SVC_CLOSED_SR_RETENTION_DAYS</code> profile option.

## Configure a Scheduled Process

Here's how you configure a scheduled process:

1. Sign in to the application as an administrator.
2. From the **Navigator**, select **Scheduled Processes**. The Scheduled Processes Overview page is displayed.
3. Click **Schedule New Process**. The **Schedule New Process** dialog box is displayed.
4. Select **Job** as the **Type** option.
5. In the **Name** drop-down list, click **Search** to search and select the process that you want to configure.
6. In the **Process Details** dialog box for the selected job, click **Advanced**.
7. On the **Schedule** tab, select **Using a schedule** as the **Run** option.
8. Specify the **Frequency** for the job.
9. Select the **Start Date** and **End Date** for the job.
10. Click **Submit**.

**Note:** The scheduled process is visible only to the user who creates the job.

## How a Request Is Closed

A service request (SR) is closed automatically when the Auto-Close Service Requests scheduled process runs as scheduled.

This process closes SRs that were resolved a certain number of days ago. The number of days for this scenario is set using the `SVC_SR_IN_RESOLVED_DAYS` profile option.

For more information about the Auto-Close Service Requests scheduled process, see SR Management Scheduled Processes.

**Note:** You can see a list of closed SRs by using advanced search, but you can't manually set the status of an SR to Closed. And after an SR is closed, you can't edit the SR, add a message, or reopen it.

*Related Topics*

- [SR Management Scheduled Processes](#)
- [What are the SR profile options?](#)

## Purge SRs and Related Objects When You Purge Contacts

### Decide Which Related Objects to Purge When You Purge Contacts

When a contact is purged, you may have to purge Service objects to comply with General Data Protection Regulations (GDPR).

You can determine whether you want to purge associated service requests (SRs) and related objects in such cases. You can also decide to purge specific objects such as SR messages.

You can decide the actions to take on the SRs and their related objects when contacts are purged from Fusion Sales and Service. To specify the actions, you must configure the **ORA\_SVC\_SR\_GDPR\_OPTIONS\_FOR\_CONTACT** profile option and select one of the values as required for your company. See [Configure Profile Option for Actions to Take on SRs and Related Objects When Contacts Are Purged](#).

### Configure Profile Option for Actions to Take When Contacts Are Purged

Configure the ORA\_SVC\_SR\_GDPR\_OPTIONS\_FOR\_CONTACT profile option to decide the actions to take on SRs and their related objects when contacts are purged. You can select one of the listed values as required for your company.

All the values for the ORA\_SVC\_SR\_GDPR\_OPTIONS\_FOR\_CONTACT profile option are described in this table.

**Values for the ORA\_SVC\_SR\_GDPR\_OPTIONS\_FOR\_CONTACT profile option**

Value of ORA_SVC_SR_GDPR_OPTIONS_FOR_CONTACT profile option	What it does
Delete SRs and child objects when purging associated contact	Deletes all service requests and their child objects where the purged contact is the primary or secondary contact.
Delete SRs and child objects when purging SR primary contact	Deletes all service requests and their child objects where the purged contact is the primary contact.
Do nothing	Makes no changes to the service request. This is the default behaviour of your service application when a contact is deleted.

Value of ORA_SVC_SR_GDPR_OPTIONS_FOR_CONTACT profile option	What it does
Remove the association of purged contacts with SR	Removes the association between the purged contacts and the service requests, but make no other changes to the service request or its child objects.
Clear SR Messages with PII data when purged contact is sender	Clears out the content of all the service request messages where the purged contact is the sender and the message is marked to contain Personally Identifiable Information (PII).
Clear SR Messages with PII data where correspondent purged	Clears out the content of all service request messages where the purged contact is a correspondent and the message is marked to contain PII.
Clear SR Messages where the purged contact is the sender	Clears out the content of all service request messages where the purged contact is the sender.
Clear SR Messages where the purged contact is a correspondent	Clears out the content of all service request messages where the purged contact is a correspondent.

1. Sign in as an administrator.
2. Navigate to the **Setup and Maintenance** work area.
3. Open the **Tasks** panel tab and click **Search**.
4. Search for and click the **Manage Administrator Profile Values** task.
5. On the Manage Administrator Profile Values page, navigate to the Search region.
6. In the Profile Option Code field, type `ORA_SVC_SR_GDPR_OPTIONS_FOR_CONTACT` and click **Search**.  
The `ORA_SVC_SR_GDPR_OPTIONS_FOR_CONTACT` profile option is displayed in the Search Results: Profile Options region.
7. In the `ORA_SVC_SR_GDPR_OPTIONS_FOR_CONTACT`: Profile Values region, navigate to the **Profile Value** column for the Site **Profile Level**.
8. From the list of displayed values, select the value that you want to set for the profile option.

## Audit Trail for Service Requests

### How do I enable users to create an audit trail?

You can create an audit trail of changes made to service requests.

By default, only certain fields of the Service Request object are audited. If you want more fields to be audited, you must add them. You can also do an audit for the child objects by doing some configuration. Similarly, you must enable the audit for any administrator-defined child objects that you create from Application Composer.

To enable the audit for additional fields or the child objects of the Service Request object:

1. Sign in to the application as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area.
3. Open the Tasks panel tab and click **Search**.
4. In the **Search** window, search for and click the **Manage Audit Policies** task.
5. On the Manage Audit Policies page, click **Configure Business Object Attributes**.

6. On the Configure Business Object Attributes page, select **Service** from the **Product** drop-down list.

All the objects that can be audited are displayed. This includes the administrator-defined objects or administrator-defined child objects for predefined entities created using Application Composer.

For the Service Request object, the **Audit** check box is selected by default. The subset of attributes that can be audited are also displayed.

7. Click **Add**.
8. In the **Select and Add Audit Attributes** dialog box, select the check box next to the attribute that you want to add, and click **OK**.
9. To add attributes to audit for each predefined or administrator-defined child object of the Service Request object, select the check box next to the object.

**Note:** The predefined child objects and administrator-defined child objects of the Service Request object are displayed. For each of these child objects, one or more attributes are audited by default.

10. Repeat steps 7 and 8 to add more attributes.
11. Click **Actions > Synchronize**.
12. Click **Save and Close**.

**Note:** The audit for the Category object is enabled by default. But you can add more attributes by following the same steps as above.

## Enable Viewing the Audit Trail

To enable viewing the audit trail for service requests in the service request Summary page, you must expose the Audit History tab using Application Composer.

For more information, see the Common Components Subtabs topic in the Oracle Fusion Cloud Applications Configuring Applications Using Application Composer guide. Follow the same steps as described for the Change History tab.

**Note:** A user can view the Audit History subtab on the service request Summary page only if their role has been assigned the SVC\_VIEW\_SERVICE\_REQUEST\_CHANGE\_HISTORY privilege.

### Related Topics

- [Common Component Subtabs](#)

## FAQs About SR Management

### Frequently Asked Questions (FAQs) for SR Management

This section contains some frequently asked questions (FAQs) when setting up and maintaining SR Management. Scroll or search to find answers to common questions.

## What happens if two contacts are merged, and how does it impact service requests?

If two contacts are merged, you may see a change in the primary contact of a service request (SR).

This change occurs because the contact remaining after the merge is now associated with the SR, as it replaces the merged contact. However, no data is lost since the records are merged.

When two contacts are merged:

- The SRs associated with the merged contact are now associated with the remaining contact.
- If two contacts associated with the same SR are merged, you can see only the remaining contact in the SR.
- All the SR messages point to the remaining contact after merging.
- The SR shows all the interactions with both the merged contact and the remaining contact.
- Interactions for the remaining contact also show the interactions for the merged contact.
- Chat transcripts associated with both the merged and remaining contacts are associated with the remaining contact.

### Note:

- You must select **All functional areas** as the merge scope when setting up Customer Hub using the Manage Customer Data Management Options task. It's necessary to select this merge scope for the service objects to be included in the scope.
- If you have defined an Application Composer rule that doesn't permit the primary contact on an SR to be updated, then the contacts don't merge.

### Related Topics

- [Survivorship Rules](#)
- [How do I merge duplicate records?](#)
- [Automerge](#)

## What happens if two accounts are merged, and how does it impact service requests?

If two accounts are merged, you may see a change in the account displayed in the **Account** field of the Summary subtab in a service request (SR). That's because the account remaining after the merge is now associated with the SR, as it replaces the merged account. However, no data is lost, as the records are merged.

When two accounts are merged:

- The SR objects associated with the merged account are associated with the remaining account.
- The merged account is no longer associated with the SR. Instead, the remaining account is associated with the SR.

- All the contacts associated with the merged account are now associated with the remaining account. So if the SR had a contact from the merged account, that contact is still associated with the SR.
- The SR shows all the interactions with both the merged account and the remaining account.
- Interactions for the remaining account also show the interactions for the merged account.
- Chat transcripts associated with both the merged and remaining accounts are associated with the remaining account.

**Note:**

- You must select **All functional areas** as the merge scope when setting up Customer Hub using the Manage Customer Data Management Options task. It's necessary to select this merge scope for the service objects to be included in the scope.
- If you have defined an Application Composer rule that doesn't permit the update of the account on the SR, then the accounts don't merge.

*Related Topics*

- [Survivorship Rules](#)
- [How do I merge duplicate records?](#)
- [Automerger](#)

## Why are some service request reference numbers missing from the sequence?

Service request (SR) reference numbers aren't guaranteed to be in sequence. That's because they're generated as soon as the user clicks the Create Service Request button on the Service Requests page.

If the user decides to cancel the SR, then that SR reference number is lost because the same number isn't used again by the application.

SR reference numbers could be missing because of the following reasons:

- The SR reference numbers are based on a document sequence which has a cache size of 1000. So whenever a database server is restarted, it pulls the next 1000 numbers, even if the last set of 1000 numbers weren't all used up.
- If you have a couple of missing SR reference numbers within the set of 1000 numbers, the reason could be any of the following:
  - The SR was deleted.
  - An error occurred when the SR was being created.
  - The SR was canceled midway while creating it.

## Why can't I set some service request fields by using groovy scripts or object workflow?

Sometimes, you may be unable to set a service request field by using groovy scripts or object workflow. If this happens, you must verify in the Application Composer whether it's a read-only field. You can't set a read-only field on a service request by using groovy scripts or object workflow.



# 3 Users and Security

## Overview of Defining Setup Users

One of your first tasks when setting up the application is the creation of users who can perform setup tasks.

Oracle creates an initial user for you when your environment is provisioned. This initial user is configured to perform security tasks, such as creating other users and granting additional privileges. As an initial user you can create users, known as setup users, to help with application setup. The setup user performs the tasks in implementation projects, sets up enterprise structures, creates application users, and administers security.

Use the Manage Users task in the Setup and Maintenance work area to create setup users. You can access this task in the Setup and Maintenance work area by selecting these options:

- Offering: Customer Data Management
- Functional Area: Users and Security
- Task: Manage Users

For information about creating setup users, see the *Implementing Sales* guide.

## Overview of Setting Up Users and Security

Since you followed the *Implementing Sales* guide steps to set up your initial set of users, then you already know that Oracle applications use a role-based access control security model to secure access to functionality and data.

In a role-based access control security model, users are assigned roles, and roles are assigned access privileges to protected system resources.

Sales and Service users who access the transactional UI, for example sales representatives or service representatives working in leads or service requests, are created as resources and are known as resources.

### Default Preferences

To set up default preferences for users and roles, access the Security Console as a setup user or other user with the IT Security Manager job role. Only setup users, or other users with the IT Security Manager job role, can access the Security Console. See the *Securing Fusion Sales and Service* guide for more information.

### User Identity Store

The Lightweight Directory Access Protocol (LDAP) identity store is a repository of user identity data. Your LDAP directory stores definitions of LDAP user accounts. In general, changes you make to user accounts are automatically synchronized between the sales application and your LDAP directory server. However, you must also run processes on a daily basis to manage the information exchange between your application and the LDAP directory server. For information, see the chapter about setting up application security in the *Securing Fusion Sales and Service* guide.

## Setup Tasks in the UI and Other Setup Options

As a setup user, you use multiple different tasks in Setup and Maintenance to create and maintain users. You also have additional setup options to consider. The following table describes these tasks and setup options.

Setup Task or Option and Navigation	Description
<p>Manage Job Roles Task</p> <p>Navigation: Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</p>	<p>Oracle provides many predefined job roles. The relevant sales roles are listed in the <i>Implementing Sales</i> guide.</p> <p>You perform the Manage Job Roles task to:</p> <ul style="list-style-type: none"> <li>Review the role hierarchy of a job or abstract role.</li> <li>Create custom job and abstract roles.</li> <li>View the roles assigned to a user and list the users who have a specific role.</li> </ul> <p>This task opens the Roles tab of the Security Console.</p>
<p>Manage Duties Task</p> <p>Manage Sales and Service Access Management Task</p> <p>Navigation: Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</p>	<p>You perform the Manage Duties task to:</p> <ul style="list-style-type: none"> <li>Review the duties of a job or abstract role.</li> <li>Manage the duties of a custom job or abstract role.</li> <li>Create custom duty roles.</li> </ul> <p>This task opens the Roles tab of the Security Console.</p>
<p>Manage Data Security Policies Task</p> <p>Manage Sales and Service Access Task</p> <p>Navigation: Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</p>	<p>You use the Manage Data Security Policies task to manage the data security policies that determine grants of entitlement to a user or role on an object or attribute group. This task opens the Roles tab of the Security Console.</p> <p>You can also use the Manage Sales and Service Access task to review and configure data security. This task opens the Sales and Service Access Management work area. For information, see the <i>Securing Fusion Sales and Service</i> guide.</p>
<p>Manage Users Task</p> <p>Navigation: Navigator &gt; Users and Roles item or Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</p>	<p>You create application users in the UI using the Manage Users task. A user with the IT Security Manager job role performs the Manage Users tasks.</p> <p><b>Note:</b>                  You can also create sales users by importing users. For information on the user import options available, see the <i>Understanding Import and Export Management for Fusion Sales and Service</i> and <i>Implementing Sales</i> guides.</p>
<p>Manage HCM Role Provisioning Rules Task</p> <p>Navigation: Setup and Maintenance Sales Offering &gt; Users and Security functional area</p>	<p>Oracle provides predefined role mapping rules for provisioning many of the standard job roles included with the application. However, using the Manage HCM Role Provisioning Rules task, you can create any additional role mappings you need to, to control the provisioning of roles to application users. For example, you can create a role mapping to provision the Channel Sales Manager role automatically to specific sales managers.</p>
<p>Import and Export Management</p>	<p>You can import users in bulk using data files. For information on the user import options available, see the <i>Understanding Import and Export Management for Fusion Sales and Service</i> and <i>Implementing Sales</i> guides.</p>

Setup Task or Option and Navigation	Description
Import Partner Users Task	You can also import partner contact data using the Import Partner Users task. For more information, see the <a href="#">Getting Started with Your Partner Relationship Management Implementation</a> guide.
Single Sign-On Authentication	Single sign-on authentication is optionally available for user authentication. If your enterprise has moved from a traditional on-premises environment to an Oracle Cloud implementation, you might want to use your existing identity management solution for authenticating your employees, and you might also want to provide a single sign-on experience. Implementing federated single sign-on lets you provide users with single sign-on access to applications and systems located across organizational boundaries. For additional information, see Oracle Applications Cloud Service Entitlements (Doc ID 2004494.1) on <a href="#">My Oracle Support</a> at <a href="https://support.oracle.com">https://support.oracle.com</a> .
Resetting User Passwords	Setup users provisioned with the IT Security Manager job role can use the Users tab in the Security Console work area to reset passwords for all application users. Users who can't access the Security Console can reset only their own passwords using the Set Preferences link in the Settings and Actions menu available by clicking their user name in the application or by using the Forgot Password link on the sign-in page. See the <a href="#">Implementing Sales</a> guide for more information.
Updating Email Addresses	Use the Users tab in the Security Console work area to change user email addresses. You can use the procedure described in this topic to update addresses of both setup users and sales users. If you're updating the email addresses of sales users, then you can also use the same import process you use to create them. See the <a href="#">Implementing Sales</a> guide for more information.

**Note:** Other data security tasks listed in the Users and Security functional area task list don't apply to the sales applications. Follow the guidance in the [Implementing Sales](#) and [Securing Fusion Sales and Service](#) guides.

#### Related Topics

- [Set General Preferences for All Users](#)
- [Subject Areas for Adoption and Usage Reporting](#)

## What are resources?

Here's an overview of resources and the different ways that you can logically group them. See the related links for more information on each.

### Resource

A resource is an application user who participates in business processes, such as Customer Service Manager or Help Desk Agent. You must identify or import resources before you can associate them with resource organizations or work objects.

### Resource Role

You use resource roles to define role provisioning rules. For example, using a provisioning rule, you can assign the Customer Service Manager job role to a user with the Customer Service Manager resource role. Oracle Applications

Cloud includes some predefined resource roles. Use these predefined, out of the box, resource roles, or create your own resource roles.

## Resource Directory

The Resource Directory gives you detailed information about all the resources within a deploying organization. You can also use the Resource Directory to find and communicate with other resources, and to network and collaborate with them. Access the Resource Directory using the following path: Navigator > Resource Directory. You can also perform some of the functions of the resource directory using the Manage Resources setup task.

## Resource Organization

You create resources and provision the permissions that the resources need to do their jobs. In the process, you also build the organization chart of your organization. You can assign organization usage information to resource organizations to classify them based on how you want to use them. For instance, you can assign resource organizations engaged in customer service activities to the Customer Service Organization usage. You can then sort organizations based on their usage.

A resource organization becomes a primary resource organization by usage for a resource, if you meet the following criteria:

- The resource must be a member of the concerned organization.
- The resource organization must be classified as an organization with the specific usage.

For example, if you classify the resource organization as a customer service organization by usage, then the resource organization becomes the primary resource organization for the resource for customer service.

## Resource Team

A resource team is a temporary group of resources formed to complete a business task. A resource team can be made up of resource organizations, resources, or both. A resource team is neither hierarchically structured nor intended to implement an organization structure. You can use resource teams as a quick reference to groups of related resources to which you can quickly assign work objects.

# Setting Up Resource Teams

## How do I manage resource teams?

This procedure describes how to manage resource teams. A resource team is a temporary group of resources formed to complete a business task. A resource team can't be hierarchically structured and isn't intended to implement an organization.

### Create Resource Teams

To create resource teams:

1. Navigate to the Manage Resource Teams UI page as follows: **Navigator > Resource Directory > Tasks > Manage Resource Teams.**

2. Click the **Create** action menu option or button.

The Create Team page appears.

3. Enter an appropriate team name.
4. Optionally, enter a team description and specify team usage, resource members, and organization members.
5. Click **Save and Close**.

## Edit Resource Teams

To edit resources teams:

1. Navigate to the Manage Resource Teams UI page as follows: **Navigator > Resource Directory > Tasks > Manage Resource Teams**.

2. Search for the resource team that you want to edit.

You can search by entering criteria such as the team name, number, and usage. You can also use the saved searches.

3. Select the resource team you want to edit from the Search Results region and click its name to navigate to the Edit Team page.
4. On the Edit Team page, you can edit the team's details such as the team name, description, usage, resource members and organization members.
5. Click **Save and Close**.

## How Resources Work Within a Team

This topic explains how resources work within a team.

You can include resources from different resource organizations to work together on a work object as members of the same resource team. You can also include the entire resource organization into a resource team. The resource organization membership and their hierarchy determine what a resource can do. Resource teams provide a flexible way of bringing resources together without any organizational or hierarchy-based restrictions.

### Assigning Resources to Teams

You can assign identified resources to teams and assign them roles within the team. Each resource can have a specific role within a team. A resource may play different roles in different teams.

## How Resource Team Membership and Role Assignment Components Work Together

This topic explains the team membership and role assignment for resources.

Resources who are team members can be assigned different roles within the team. These roles don't necessarily reflect the roles these resources might play in resource organizations. Depending on the task requirements of the team, roles are assigned to resources. Based on the role assignment, resources can access data related to the tasks in the team. You can manage the resources in a team using the Manage Resource Teams task. You can access the Manage Resource Teams task as follows: Click **Navigator > Resource Directory > Tasks > Manage Resource Teams**.

## Resource Team Membership

A resource can belong to multiple teams depending on the requirements of these teams and the skills that the resource offers. This doesn't affect the resource's membership with organizations within the deploying company.

## Role Assignment

Resources have specific roles to play in the team to which they belong. Each of these roles can be different. Also, these roles can be different from the roles assigned to the same resources in resource organizations. Thus, a resource can be a manager in one team and a member in another simultaneously.

# FAQs for Define Resource Team Information

## Frequently Asked Questions (FAQs) for Resource Team

This section contains some frequently asked questions (FAQs) when setting up and maintaining a Resource Team. Scroll or search to find answers to common questions.

### What's a resource team?

A resource team is a group of resources formed to work on work objects. A resource team can comprise resource organizations, resources, or both. A resource team is neither hierarchically structured nor intended to implement an organization structure.

You can use resource teams as a quick reference to groups of related resources to which you can quickly assign work objects.

**Note:** You can either individually assign the members of a team to a task or assign entire teams to tasks.

### What's the difference between a resource organization and a resource team?

A resource organization is an organization whose members are resources. Resource organizations are used to implement sales organizations, partner organizations, and so on.

A resource team is a temporary group of resources formed to work on work objects. A resource team may contain a resource organization or resources or both. A resource team can't be hierarchically structured and isn't intended to implement an organization.

## Can I assign multiple resource roles to a team member at the same time?

Yes. Resources within resource teams can have multiple resource roles. You can add roles to a resource in a resource team using the Manage Resource Teams task. Select the resource and click the Edit button to assign additional roles to the resource.

## About Security Roles

Many job roles and duty roles are predefined in the Service offering. The following table lists the main predefined job roles specific to this product area.

For a more complete list of job roles, refer to the Related Topics area for a link to the Security Reference for Fusion Sales and Service guide.

Job Role	Description
Customer Service Manager	Manages a group of Customer Service Representatives. The person in this job role manages the queues of open service requests. Also, this person ensures that work is being assigned and resolved by the pool of resources. This individual also monitors incoming service requests.
Customer Service Representative	Responds to a variety of customer requests. The person in this job might receive requests to help with a product or service problem or to clarify a pricing or ordering question. This individual is usually assigned to one or more queues of service requests that are used to categorize incoming service requests by customer type, category, or product.
Knowledge Analyst	Creates, curates, and maintains knowledge articles. The person in this job supports the work of Customer Service Managers and Customer Service Representatives as they manage customer issues.
Knowledge Manager	Manages a knowledge instance. The person in this job manages the administration and operations of a knowledge program. In addition, this person ensures that knowledge can be created and maintained by analysts and found by knowledge users.

In addition to the job roles, the following table lists the duty roles specific to the Service offering.

Duty Role	Description
Service Request Troubleshooter	Manages all aspects of the Service Request object. A customer service representative is typically given this duty role
Service Request Contributor	Creates or adds information to service requests. This person has basic Service Request Management capabilities. This person can't respond to customers, assign service requests to a user, or delete attachments from service requests.

Duty Role	Description
	This role is typically given to non-service users, for example, sales representatives, product managers and engineers.
Service Request Power User	Do all the tasks that a troubleshooter can, with the added privileges to manage queues. Customer service managers are typically given this duty role.
Service Request Administrator	Do all the tasks that a power user can do. Additionally, this person can administer all aspects of the application, including the setup. CRM application administrators are typically given this role.
Service Request Channel User	Manages all aspects of a service request that is associated with a partner account. This duty is similar to the service request troubleshooter.
Service Request Partner User	Submits service requests to get assistance with partner sales or support issues. This duty is granted to a contact from a partner account.

## Resource Roles and Provisioning Rules for Service

Oracle provides resource roles for the Service offering which are used to provision the standard service job roles. Oracle also provides the role provisioning rules for these resource roles so that service users are automatically assigned the job and abstract roles they need.

These are the service role provisioning rules provided by Oracle, the condition that triggers the provisioning, and the job and abstract roles each rule provisions.

Provisioning Rule Name	Condition	Job or Abstract Roles Provisioned
Service Vice President	HR Assignment is Active Resource Role is Service Vice President	Customer Service Manager Resource
Service Administrator	HR Assignment is Active Resource Role is Service Administrator	Customer Relationship Management Application Administrator Resource
Service Manager	HR Assignment is Active Resource Role is Service Manager	Customer Service Manager Resource
Service Representative	HR Assignment is Active Resource Role is Service Representative	Customer Service Representative Resource

**Note:** If you didn't use the Create Company Information quick setup task to set up your company information, then the predefined role provisioning rules aren't created; you must create the provisioning rules yourself. For information about creating provisioning rules, see the topic Create Rules to Automatically Provision Job Roles to Sales Users.

#### Related Topics

- [Overview of Role-Based Access Control](#)
- [Create Rules to Automatically Provision Job Roles to Sales Users](#)

## Set Up Service Request Visibility Based on Queue

### How You Set Up Visibility Based on Queue

When users view lists of service requests (SRs) or create user-defined searches, their access is based on the cumulative set of data security policies assigned to all the roles associated with them.

You can restrict their user access based on their queue membership. This ensures users see only the SRs that are in their queue by completing the following processes in the Security Console:

- "Remove Data Security Policies from Users": If the users have been assigned other data security policies that grant them access to a larger set of SRs, then you must remove such data security policies from the users.
- "Assign Data Security Policies Based on Queue": Grant queue-based visibility to SRs for specific roles. This ensures that users with these specific roles can see only the SRs assigned to the queues where they're a resource member.

With this data security policy, your company has the additional option to ensure that all predefined and user-defined searches are limited only to queue membership for a set of users.

#### Related Topics

- [Edit Data Security Policies on the Security Console](#)
- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Remove Data Security Policies from Users

If your users have existing service duty roles and you don't want them to view all the service requests that they can currently view, you must remove those data security policies from the users.

To remove the data security policies from your users:

1. Copy the predefined duty roles given to your users.

For more information about copying roles, see "Copying and Editing Duty Roles" in the *Oracle Fusion Securing Sales and Service* guide.

2. Remove the data security policies that you don't want these users to have.

For more information about removing or creating data security policies, see "Managing Data Security Policies" in the *Oracle Fusion Securing Sales and Service* guide.

### Related Topics

- [Edit Data Security Policies on the Security Console](#)
- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Assign Data Security Policies Based on Queue

The predefined roles don't have queue-based service request (SR) visibility. Let's say you assign the queue-based data security policies to your users. Then, users with these specific roles can see only the SRs assigned to the queues where they're a resource member.

To assign the queue-based data security policies to your users:

1. In the Security Console, create a new job role and click **Next**.

For more information about creating or editing a job role, see "Creating Job or Abstract Roles" in the *Oracle Fusion Securing Sales and Service* guide.

2. For the new job role created in the previous step, create a new data security policy by specifying the following attributes:
  - Give an appropriate name to the policy.
  - Select the following Data Resource: **Service Request Header**.
  - Select the following Data Set: **Select by instance set**.
  - Select the following Data Condition Name: **Access the service request header for table SVC\_SERVICE\_REQUESTS where the customer relationship management service request is assigned to a queue that they're a member of**.
  - Select the appropriate actions. Typically, you must select all actions except **Delete**.
3. Click **OK** and continue to the Users section of the process for creating a job role.
4. Add the users to whom you want to assign this data security policy.
5. Save the job role.

### Related Topics

- [Edit Data Security Policies on the Security Console](#)
- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

# Set Up Service Request Visibility Based on BU

## How You Set Up Visibility Based on BU

When users view lists of service requests (SRs) or create user-defined searches, their access is based on the cumulative set of data security policies assigned to all the roles associated with them.

You can restrict users' access based on their Business Unit (BU) membership, ensuring that the users see only the SRs that are assigned to the BUs where they're a resource member. To do so, you must complete the following processes in the Security Console:

- **"Remove Data Security Policies from Users"**: If the users have been assigned other data security policies that grant them access to a larger set of SRs, then remove such data security policies from the users.
- **"Assign Data Security Policies Based on BU"**: Grant BU-based visibility to service requests for specific roles. This ensures that users with these specific roles can see only the SRs assigned to the BUs where they're a resource member.

With this data security policy, your company has the additional option to ensure that all predefined and user-defined searches are limited only to BU membership for a set of users.

### Related Topics

- [Edit Data Security Policies on the Security Console](#)
- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Remove Data Security Policies from Users

If your users have existing service duty roles and you don't want them to view all the service requests that they can currently view, you must remove those data security policies from the users.

To remove the data security policies from your users:

1. Copy the predefined duty roles given to your users.

For more information about copying roles, see "Copying and Editing Duty Roles" in the *Oracle Fusion Securing Sales and Service* guide.

2. Remove the data security policies that you don't want these users to have.

For more information about removing or creating data security policies, see "Managing Data Security Policies" in the *Oracle Fusion Securing Sales and Service* guide.

#### Related Topics

- [Edit Data Security Policies on the Security Console](#)
- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Assign Data Security Policies Based on BU

The predefined roles don't have service request visibility based on business unit (BU).

To assign the data security policies based on BU to your users:

1. In the Security Console, create a new job role and click **Next**.

For more information about creating or editing a job role, see "Creating Job or Abstract Roles" in the *Oracle Fusion Securing Sales and Service* guide.

2. For the new job role created in the previous step, create a new data security policy by specifying the following attributes:
  - Give an appropriate name to the policy.
  - Select the following Data Resource: .
  - Select the following Data Set: **Select by instance set**.
  - Select one of the following data condition names:
    - **Access the service request header for table SVC\_SERVICE\_REQUESTS where the customer relationship management service request is associated with my business units or the application default business unit.**
    - **Access the service request header for table SVC\_SERVICE\_REQUESTS where the partner service request is associated with my business units or the application default business unit.**
3. Select the appropriate actions. Typically, you must select all actions except **Delete**.
4. Click **OK** and continue to the Users section of the process for creating a job role.
5. Add the users to whom you want to assign this data security policy.
6. Save the job role.

#### Related Topics

- [Edit Data Security Policies on the Security Console](#)
- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Data Security Policies on SRs

### Define Access-Group-Based Data Security Policies

As a Customer Relationship Management Application Administrator or Sales Administrator, you can define access-group-based data security policies on service requests. Though predefined data security policies are available, you have the option to define additional data security policies based on access groups.

As compared to SQL-based data security policies, access groups are an alternative way of granting data permissions to users. Instead of creating security policies using SQL, you can use object-sharing rules in the sales and service access management UI to define your visibility criteria.

For more information about creating data security policies, see the Access Groups chapter in the Oracle Fusion : Securing Sales and Service guide.

If you're replacing existing SQL-based data security policies with policies based on access groups, then remember to set an end date for those policies.

#### *Related Topics*

- [Create a Custom Access Group](#)
- [Add Members to Custom Access Groups Using the UI](#)
- [Create Custom Object Sharing Rules](#)

### How do I define system-access-group-based data security policies?

Let's say you're a Customer Relationship Management Application Administrator or IT Security Manager. Then you can use system access groups and predefined rules to support service request data security for your users.

Every standard job role provided by Oracle has a corresponding system access group. The predefined object-sharing rules assigned to each system access group provide the same access to service request data as provided by the standard job roles.

**Note:** System access groups provide you an alternative way to manage a user's access to service request data. You can also create access extension rules to extend the access provided by the predefined rules to related objects.

System access groups are active by default. But the predefined object-sharing rules associated with each system access group are inactive by default. So you must activate these rules before you can use them. The association between system groups and predefined rules is also disabled by default. So for each system group, you must also enable the predefined rules you want to apply to the group.

The following table lists the predefined object-sharing rules for system access groups along with their descriptions.

S. no.	Predefined rule name	This rule provides access to:
1	All Service Requests	All service requests.
2	All CRM Service Requests	Access to all CRM service requests.
3	CRM Business Unit Service Requests	All CRM service requests associated with the user's business units.
4	CRM Partner Service Requests	All CRM partner service requests.
5	CRM Business Unit Partner Service Requests	CRM partner service requests associated with the user's business units.
6	CRM Service Request Queue Member	All CRM service requests assigned to queues that the user is a member.
7	CRM Service Request Queue Member Hierarchy	All CRM service requests assigned to queues that the user's subordinates are a member.
8	CRM Service Request Team	All CRM service requests where the user is on the SR team.
9	CRM Service Request Team Hierarchy	All CRM service requests where the user's subordinates are on the SR team.
10	CRM Service Request Assignee	All CRM service requests where the user is the assignee.
11	CRM Service Request Assignee Hierarchy	All CRM service requests where the user's subordinates are the assignee.
12	CRM Service Request Creator	All CRM service requests where the user created the SRs.
13	CRM Service Request Creator Hierarchy	All CRM service requests where the user's subordinates created the SRs.
14	CRM Service Request Partner Account	All service requests where the SR is associated with the user's partner account.
15	CRM Service Request Contact	All CRM service requests where the user is an SR contact.
16	All HR Service Requests	All HR service requests.
17	HR Business Unit Service Requests	All HR service requests associated with the user's business units.

S. no.	Predefined rule name	This rule provides access to:
18	HR Service Request Queue Member	All HR service requests assigned to queues that the user is a member of.
19	HR Service Request Queue Member Hierarchy	All HR service requests assigned to queues that the user's subordinates are a member of.
20	HR Service Request Team	All HR service requests where the user is on the SR team.
21	HR Service Request Team Hierarchy	All HR service requests where the user's subordinates are on the SR team.
22	HR Service Request Creator	All HR service requests where the user created the SRs.
23	HR Service Request Primary Contact	All HR service requests where the user is the SR primary contact.
24	HR Service Request Assignee	All HR service requests where the user is the assignee.
25	HR Service Request Assignee Hierarchy	All HR service requests where the user's subordinates are the assignee.

## End Date Predefined SQL-Based Data Security Policies

Every predefined rule was created to match an existing predefined SQL-based data security policy. So if you're enabling predefined rules, you must end date the matching predefined SQL-based data security policy.

Here's what you must do:

1. Navigate to Security Console.
2. Edit the role for which you're enabling predefined rules.

The service request data security policies are given to duty roles such as Service Request Troubleshooter, Service Request Power User, and Service Request Contributor. So, you would edit the roles that you copied from these predefined roles.

3. Go to Step 3, Data Security Policies, in the wizard where you're editing the role.
4. Find the matching SQL-based data security policy for your predefined rule.
5. Edit the data security policy and set a past date as the end date for the data security policy.

**Note:** Let's say you're using the predefined service duty roles such as Service Request Troubleshooter. Then you must first copy those roles because the predefined roles can't be edited.

## Define Access Group-Based Data Security Policies for Messages

As a Sales Administrator or Customer Relationship Management Application Administrator, you can define access group-based data security policies on SR messages.

Access groups are an alternative way of granting data permissions to users, compared to SQL-based data security policies. You can use object-sharing rules in the Sales and Service Access Management UI to define your visibility criteria.

To define access-group-based data security policies for SR messages:

If you don't want to use an existing access group, complete the following tasks:

1. Create a new access group.
2. Add members to the access group.
3. Create an object-sharing rule to grant access to SR messages for all the access group members.

**Note:** For more detailed information about the above steps, see the Oracle Fusion Securing Sales and Service guide.

### Related Topics

- [Create a Custom Access Group](#)
- [Add Members to Custom Access Groups Using the UI](#)
- [Create Custom Object Sharing Rules](#)

## Define Access Group-Based Data Security Policies for Categories

As a Sales Administrator or Customer Relationship Management Application Administrator, you can define access group-based data security policies on service categories.

Access groups are an alternative way of granting data permissions to users as compared to the SQL-based data security policies. You can use object-sharing rules in the Sales and Service Access Management UI to define your visibility criteria.

To define access-group-based data security policies for service categories:

1. Create a new access group if you don't want to use an existing access group.
2. Add members to the access group.
3. Create an object-sharing rule to grant the access group members access to service categories.

**Note:** For more detailed information about the above steps, see the Oracle Fusion Cloud Securing Sales and Fusion Service guide.

### Related Topics

- [Create a Custom Access Group](#)
- [Add Members to Custom Access Groups Using the UI](#)
- [Create Custom Object Sharing Rules](#)

## Enable Viewing of Updates to SRs Secured Using Access Groups in Near Real Time

You can access service requests (SRs) that are secured using access groups in near real time. When an SR is created or updated, users can access the new or updated SR immediately.

You don't have to run the Perform Object Sharing Rule Assignment Processing scheduled process for users to access the SRs.

To implement near-real-time processing for service requests, you must enable the following profile options:

- Near Real-Time Transaction Tracking for Access Groups Enabled (ORA\_ZCA\_ACCESS\_GROUPS\_NEAR\_REAL-TIME\_TRACKING\_ENABLED)  
This option is enabled at the site level by default.
- Common CRM Signals Active (ORA\_ZCA\_ENABLE\_SIGNALS)  
This option is disabled by default.

For more information, see *Configure Real-Time and Near Real-Time Access for Access Group Object Records* in the Oracle Fusion Securing Sales and Service guide.

### *Related Topics*

- [How do I configure real-time and near real-time access for access group object records?](#)

## Set Up Read-Only Access to the Service Request Header

### How You Set Up a Role With Read-Only Access to a Service Request Header

Here's how you set up a role that has read-only access to a service request (SR) header, but still be able to add SR messages such as Customer Entry, Response, Forward to the SR.

To make the SR header read-only for a user, remove the Edit Service Request privilege from the user. After you remove the Edit Service Request privilege from a user's role:

- The user won't be able to edit these elements of the SR:
  - SR header fields
  - SR contacts
  - SR team members
  - Add or delete attachments

- The user won't be able to take the following actions on the SR List pages:
  - Mass update of SRs
  - Inline edit of SR fields
- The following actions will be available through the Action Bar:
  - Copy
  - Get Link
  - Forward
  - Internal Note
  - Response

**Note:**

- Making the data read-only in the subtabs such as Activities, Work Orders, and Action Plans isn't part of this topic.
- A user won't be able to search for Knowledge articles or link articles to the SR. But if the user has the privilege to compose messages on the SR, the user would be able to insert existing linked articles to an SR message.

*Related Topics*

- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Set Up a Role With Read-Only Access

Here's how you set up a role with read-only access to the service request (SR) header alone, or both the SR header and SR messages:

**Note:** These steps use the **Service Request Troubleshooter** duty role and **Customer Service Representative** job role as examples. You can copy any of the service job and duty role combinations to create a read-only version of that role.

1. Sign into the application as an administrator.
2. Navigate to **Security Console**.
3. Copy a service duty role, such as **Service Request Troubleshooter** .  
When copying the role, select the **Copy Top Role** option.
4. Remove the privileges that you don't want to assign, from the copied role.
5. Copy a service job role, such as **Customer Service Representative**  
When copying the role, select the **Copy Top Role** option.
6. Delete the **Service Request Troubleshooter** child role from the copied job role.
7. Associate the copied version of the **Service Request Troubleshooter** duty role to the copied job role.
8. Associate the copied job role with the users who need read-only access to the SR header alone, or both the SR header and SR messages.

---

Ensure that the users don't have other roles that assign them the **Edit Service Request** privilege.

*Related Topics*

- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Set Up Read-Only Access to the Service Request Header and Service Request Messages

### How You Set Up a Role With Read-Only Access to Service Request Header and Service Request Messages

Here's how you set up a role that has read-only access to the service request (SR) header and SR messages.

To make the SR header and SR messages read-only for a user, remove the following privileges from the user:

- Edit Service Request
- Compose Customer Message
- Compose Internal Note
- Compose Response
- Forward Service Request

After you remove these privileges from a user's role, the following actions won't be available on the SR (in addition to the SR header read-only restrictions):

- Forward
- Internal Note
- Response

*Related Topics*

- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

## Set Up a Role With Read-Only Access

Here's how you set up a role with read-only access to the service request (SR) header alone, or both the SR header and SR messages:

**Note:** These steps use the **Service Request Troubleshooter** duty role and **Customer Service Representative** job role as examples. You can copy any of the service job and duty role combinations to create a read-only version of that role.

1. Sign into the application as an administrator.
2. Navigate to **Security Console**.
3. Copy a service duty role, such as **Service Request Troubleshooter** .

When copying the role, select the **Copy Top Role** option.

4. Remove the privileges that you don't want to assign, from the copied role.
5. Copy a service job role, such as **Customer Service Representative**

When copying the role, select the **Copy Top Role** option.

6. Delete the **Service Request Troubleshooter** child role from the copied job role.
7. Associate the copied version of the **Service Request Troubleshooter** duty role to the copied job role.
8. Associate the copied job role with the users who need read-only access to the SR header alone, or both the SR header and SR messages.

Ensure that the users don't have other roles that assign them the **Edit Service Request** privilege.

#### *Related Topics*

- [Create Job and Abstract Roles](#)
- [Copy and Edit Duty Roles](#)
- [Copy Job or Abstract Roles](#)

# 4 Catalog Management

## How do I define a catalog for Service?

In most implementations, you must create a catalog of products and services. If you have already defined a catalog with the Base usage for Sales, it can be used in the Service offering.

Alternatively, you have the option to create and manage a distinct catalog for the Service offering.

Before deciding whether to create a distinct catalog for the Service offering, consider that using the same catalog as Sales means you have the same hierarchy of product groups used to categorize service requests. For some implementations, you can use the same catalogs. However, in other implementations, the Sales catalog might not have the right granularity to properly categorize service issues. In these situations it would be appropriate to create a separate hierarchy of product groups and products, specifically for the Service offering.

## Using an Existing Sales Catalog for the Service Offering

To use the same catalog for your Service offering that you use for your Sales implementation, you must add the root product group for the Sales catalog in the Service offering.

To use an existing Sales catalog in your Service offering:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Service Catalog
  - o Task: Manage Product Group Usage

The Manage Product Group Usage page appears.

2. Click the **Service** usage.
3. In the **Service: Details** section, on the **Product Groups** tab, add the root product group for the sales catalog.
4. Save the record.

## Defining a Distinct Catalog for the Service Offering

Defining a catalog for the Service offering is the same procedure that you use for Sales. The only difference is that for Product Group Usage, Sales uses the Base usage, whereas Service uses the Service usage.

To define a distinct catalog for the Service offering:

1. Define a product catalog specific to Service.
2. In the **Manage Product Group Usage** page, click the **Service** usage.
3. Associate the product catalog that you created to the Service usage, as described in the previous section.

## Overview of Sales Catalogs

Using sales catalogs lets you:

- Use product group as a territory dimension so assignments can be made based on product.
- Give salespeople a mechanism to add product revenue to opportunities.
- Let salespeople add products to leads.
- Have product revenue available in forecasting and salesperson quota.

**Note:** While you can include individual products (also known as inventory items) in your catalog, they're not required unless you're integrating with a product application downstream, such as Oracle Configure, Price, and Quote Cloud (Oracle CPQ). For information on the setup of individual products, see the topics on sales products.

## Sales Catalog Key Features

Here are the key features of the sales catalog:

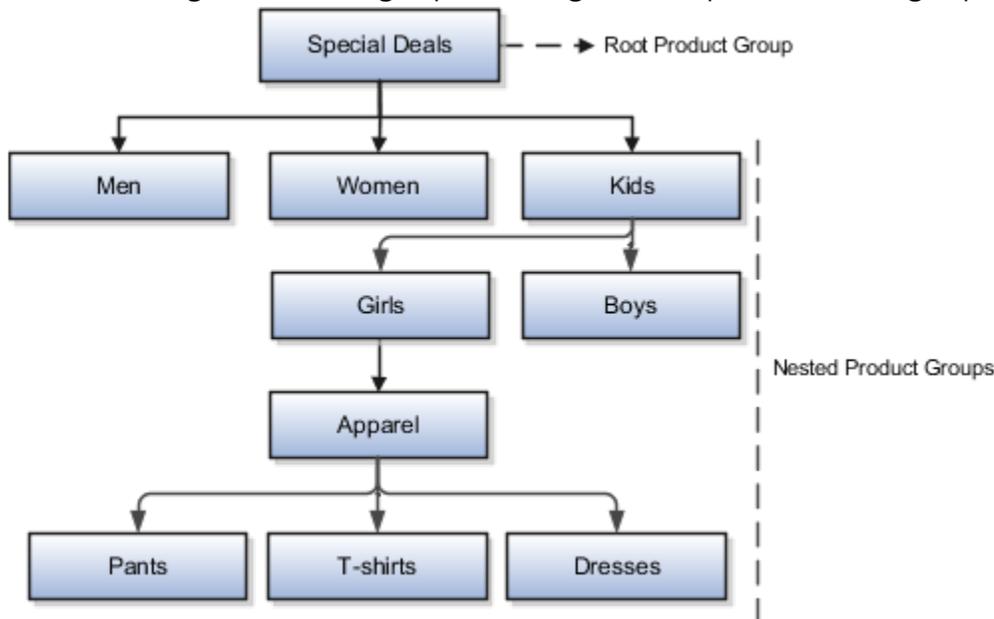
- Import your inventory list using standard import or import macros.
- Quickly build and deploy sales catalogs in a single administration UI.
- Build product groups in a hierarchy.
- Translate product group display name and description into different languages.
- Use the sales Products UI to create individual products that you add to the product catalog.
- Use price books and the default pricing region in the Products UI to price "standalone" products outside of the catalog hierarchy.

## Product Group Hierarchy Example

The following figure shows an example of a product group hierarchy.

In the example: At the top of the product group hierarchy is the root product group, named Special Deals. The nested groups begin with the child groups of the Special Deals root group. These include: Men, Women, and Kids. Within the Kids group, more nested groups appear, including Girls and Boys. Within the Girls group, a child group called Apparel appears. Within the Apparel group, further nesting occurs, with the groups Pants, T-shirts,

and Dresses. Together, the root group and configuration of parent and child groups make up the sample hierarchy.



*Related Topics*

- [Sales Catalog High-Level Setup Steps](#)
- [Add Products to the Catalog](#)
- [Validate the Sales Catalog](#)
- [Run the Refresh Denormalized Product Catalog Table Process](#)
- [Example of Creating a Sales Catalog](#)

## Sales Catalog High-Level Setup Steps

Creating your sales catalog involves a number of steps.

This table shows the high-level setup steps and where to find more information about the step:

**Note:** If you're using the Setup Assistant to create your catalog, consult the *Implementing Sales* guide first. When you use the Setup Assistant, many steps are done for you by the assistant.

Step	Description	Where to Find More Information
Ensure prerequisites are set up	Ensure that your prerequisite structures are set up before starting to create the catalog.	See the <i>Prerequisite Setups for Sales Products</i> topic in this chapter
Create the root product group	Create the root product group. The root catalog or root product group is the top of the product group hierarchy. All other product groups are nested underneath.	See the <i>Create the Root Product Group</i> topic in this chapter

Step	Description	Where to Find More Information
<p>Create the product group hierarchy</p>	<p>Add additional product groups to create the catalog hierarchy of product groups and subgroups.</p> <p>Once your hierarchy is set, you can add the product groups manually in the product groups pages, or you can import them. Importing products lets you use quick import macros or Import Management to create the entire product group and product hierarchy all at once.</p> <p><b>Note:</b>                      If you're not integrating with an order management application or doing quoting, you can simply use a product group hierarchy without products. There's no need to use individual products unless you need to for downstream applications.</p>	<p>See:</p> <ul style="list-style-type: none"> <li>• <a href="#">Create the Product Group Hierarchy</a> topic in this chapter</li> <li>• The topic, <a href="#">Options for Importing Data Into Your Application</a>, as well as additional topics about importing products, in the <a href="#">Implementing Sales</a> guide</li> </ul>
<p>Create or import products</p>	<p>If you're going to use individual products in the catalog, add products to the application. You can create products using the sales Products UI or the product model available with Oracle Supply Chain Management Cloud.</p> <p>You can also import products and the product hierarchy all at once. Or, you can use Import Management to import products and the hierarchy.</p>	<ul style="list-style-type: none"> <li>• If using the sales Products UI, see the Products chapter in this guide</li> <li>• If using Oracle Supply Chain Management (SCM) Cloud product model see these guides:                             <ul style="list-style-type: none"> <li>○ Oracle SCM Cloud Implementing Product Management</li> <li>○ Oracle SCM Cloud Using Product Master Data Management</li> </ul> </li> <li>• The topic, <a href="#">Options for Importing Data Into Your Application</a>, as well as additional topics about importing products, in the <a href="#">Implementing Sales</a> guide</li> </ul>
<p>Add products to the catalog</p>	<p>If you're going to use individual products in the catalog, add products to the product group hierarchy.</p>	<p>See the <a href="#">Add Products to the Catalog</a> topic in this chapter</p>
<p>Publish the sales catalog</p>	<p>Publish the product group hierarchy that makes up the sales catalog. Perform this step in the product groups pages in Setup and Maintenance.</p> <p>When you publish a catalog, the scheduled process, Refresh Denormalized Product Catalog Table for BI, runs automatically to update the current view of the product group hierarchy in consuming applications.</p>	<p>See:</p> <ul style="list-style-type: none"> <li>• <a href="#">Publish the Sales Catalog</a> topic in this chapter</li> <li>• <a href="#">Run the Refresh Denormalized Product Catalog Table</a> topic in this chapter</li> </ul>
<p>Enable the sales catalog</p>	<p>To enable a sales catalog for use in the applications, you associate it with a "usage" called the Base usage.</p>	<p>See the <a href="#">Enable the Sales Catalog by Setting the Base Usage</a> topic in this chapter</p>

Step	Description	Where to Find More Information
Run the scheduled process, Refresh Denormalized Product Catalog Table for BI	If you make a new assignment of Base to a root product group, you must run the scheduled process, Refresh Denormalized Product Catalog Table for BI. If you don't run the process, your product group hierarchy may not appear in the consuming applications.	See the <a href="#">Run the Refresh Denormalized Product Catalog Table</a> topic in this chapter
Set usage options for searching and browsing	If you have set up the browse catalog feature, configure search and browse options.	See the <a href="#">Set Sales Catalog Search and Browse Options</a> topic in this chapter
Verify your setups	After you have published and enabled your catalog and, optionally, set up browsing, validate your setups.	See the <a href="#">Validate the Sales Catalog</a> topic in this chapter
Set up eligibility rules for products	You can implement eligibility rules that enable salespeople to check product eligibility in opportunities.	See the <a href="#">Set Up Product Eligibility</a> topic in the Products chapter of this guide
Set territory filtering options	You can configure whether the sales catalog displays only product groups and products within a user's sales territories, or if it displays all product groups and products defined in the catalog.	See the <a href="#">Filter Sales Catalog Display by Territories</a> topic in this chapter
Integrate with Oracle Configure, Price, and Quote (Oracle CPQ) for additional capabilities	You can use the prebuilt Fusion Sales-Oracle CPQ integration to let salespeople manage a variety of quote-related activities.	See the <a href="#">Quotes and Orders</a> chapter in this guide and the Integrating Fusion Sales with Oracle CPQ guide on Oracle Help Center

## Add Products to the Catalog

Now that you have created products following the steps in the Products chapter of this guide, or, if you have imported them, your next step is to add them to the product groups that make up the sales catalog hierarchy.

Here's how to manually add products to the sales catalog product group hierarchy.

1. In Setup and Maintenance, go to:
  - o Offering: Sales
  - o Functional Area: Sales Catalog and Products
  - o Task: Manage Product Groups
2. In the Manage Product Groups page, in the product group hierarchy, select the product group that you want to add products to.
3. Lock the product group for editing by clicking the **Lock** button.
4. Click the **Products** tab for the product group you selected.
5. In the **View** filter, ensure that the Administration view is selected.
6. In the products table, select **Actions > Select and Add**.
7. In the Select and Add: Products screen, search for and select the product you're adding.

8. Click **Apply** and then **OK** in the select and add window.

The application returns to the Manage Product Groups page with the product added to the product group.

9. Click the **Publish** button to publish the product group.
10. Finally, click **Yes** in the Confirm Publish dialog window and then dismiss the confirmation message. The application publishes the product group.
11. Save your changes.

To select the organization that provides the set of products available for marketing and sales activities, select an option in the QSC\_SALES\_PRODUCTS\_INVENTORY\_ORG\_ID profile value.

For more information about how to create products manually in the sales UI, see the Products chapter in this guide. To understand how to import products and the product hierarchy, see the *product import topics* in the *Implementing Sales* guide.

Of course, if you're integrating with Oracle Supply Chain Management (SCM) Cloud, you may be creating product in that application's Products screens. To understand this integration a little more see the *Products* chapter in this guide.

#### Related Topics

- [Overview of Sales Products](#)
- [What are the available data import options?](#)

## Enable Salespeople to Browse the Catalog

If you want salespeople be able to browse the catalog in opportunities and leads, rather than select products from a list, set the profile option, Browse Sales Catalog in Opportunities Enabled, to Y.

The application shows the Browse Sales Catalog button on the Products table in opportunities and leads after you do this:

1. In Setup and Maintenance, go to:
  - o Offering: Sales
  - o Functional Area: Opportunities
  - o Task: Manage Opportunity Profile Options
2. Search for:
  - o Profile Display Name: Browse Sales Catalog in Opportunities Enabled
  - or
  - o Profile Option Code: MOO\_ENABLE\_BROWSE\_CATALOG
3. In the list that's returned, click on the profile option name link.
4. In the Profile Values region, set the Profile Value to Y.
5. Save your changes.

## Validate the Service Catalog

Here's how you validate that the product groups are displayed on your SRs after you have published and enabled your catalog:

1. Sign into Fusion Service as a service manager or service representative.
2. Navigate to **Service Requests** and create a service request.
3. In the Create Service Request page, click the **Product** drop-down list, and click **Search**.
4. Ensure that your product catalog is displayed in the Select: Product page.

### *Related Topics*

- [Sales Catalog High-Level Setup Steps](#)
- [Run the Refresh Denormalized Product Catalog Table Process](#)
- [Best Practices for Sales Catalog Setup](#)



# 5 Service Request Categories

## Overview of Categories

Service request categories help identify the nature of issues reported in service requests.

For example, you can create categories to help group service requests related to hardware in one category, and service requests related to software in another category. You can then create further categories and child categories to narrow the type of service request within one of the ordered groupings.

Administrators can create categories and category hierarchies to group and organize service requests depending on their organizational needs. Before creating categories, you must consider the following:

- Create a list of your top-level categories.
- For each top-level category, create a list of child categories.

### *Related Topics*

- [Manage Categories](#)
- [How do I update existing setup data?](#)

## Manage Categories

Categories can help identify the nature of issues reported in service requests. For example, categories can help group service requests related to hardware in one category, and service requests related to software in another category.

Further categories and child categories can then be created to narrow the type of service request within one of the ordered groupings.

Administrators can create categories and category hierarchies to group and organize service requests depending on their organizational needs. Before creating categories, it can be helpful to create a list of the top-level and child categories you need.

**Note:** By default, there is a limit of 1999 categories per business unit. If you require more categories, you can set the value in the `ORA_SVC_RELAX_2K_LIMIT_FOR_CATEGORIES` profile code to Yes.

To create categories, do the following:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Service Request
  - o Task: Manage Service Request Categories

The Service Request Categories page is displayed.

**Note:**

- o Click **Go to the new category setup and configuration page** to navigate to the Categories page within the Redwood user experience.
- o You can also work with the Categories page within the Redwood user experience, by navigating to **Home > Service > Service Request Categories** (quick action). This page is extensible, so you can add custom fields. You can move child categories between different parents, and promote child categories to a parent level. Also, you can use different attributes to search the categories.

2. Create a top-level category:

- a. Click the **Create Category** drop-down list, and then select **Create Top-Level Category**.
- b. Enter a name in the **Category Name** field.
- c. Enter a unique **Category Code**. It must be unique across all business units (BUs) and application stripe.
- d. Specify if the category must be active, by selecting the **Active** check box.
- e. Click **Save**.
- f. From the **Business Unit Name** drop-down list, select the BU to which you want to associate the category.

By default, the BU that's set in the scope is displayed. However, you can change the BU.

- g. Create additional top-level categories, as needed.

3. Create child categories:

- a. From the **Service Request Categories** list, select the top-level category for which you want to create child categories.
- b. Click the **Create Category** drop-down list, and then select **Create Child Category**.
- c. Enter a name in the **Category Name** field.
- d. Enter a unique **Category Code**. It must be unique across all BUs and application stripe.
- e. Specify if the category must be active, by selecting the **Active** check box.

The **Business Unit Name** column displays the BU associated with the top-level category.

- f. Click **Save**.
- g. Create additional child categories, as needed.

The child categories appear indented under the top-level category.

**Note:** You can set the BU only for the top-level category. The BU on the child categories is automatically set based on the BU of the root category.

### Related Topics

- [Overview of Categories](#)
- [How do I update existing setup data?](#)

## Translate Category Names into Installed Languages

You may want to display the names of categories in the language of your installation.

By default, these names are the same in the base language and in all the installed languages. However, these can be translated so you can provide language-specific category names in all the installed languages in the application.

To translate the category names into all the installed languages:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Service Request
  - Task: Manage Service Request Categories
2. On the Service Request Categories page, in the **Category Name** column, select a category.
3. Click the Translation Editor.

The **Edit Translations** window is displayed, showing different rows for the selected category name in the base language and the installed languages.

4. Click the row for the first installed language.

**Note:** By default, the category name in all the installed languages is the same as that in the base language.

5. In the **Category Name** field, specify the selected category name in the corresponding installed language.
6. Click **OK**.
7. Starting from step 2, repeat all the steps for each category name.



# 6 Work Assignment and Routing

## Overview of Assignments, Mappings, and Rules

For more information about assignment mappings, assignment rules, and configuring assignment, see the following topics in the Oracle Fusion Cloud Sales Automation Implementing Sales guide:

Topic in the Oracle Fusion Cloud Sales Automation Implementing Sales guide	What the topic covers
Considerations for Configuring Assignment	<ul style="list-style-type: none"> <li>• Phases of assignment</li> <li>• Setup tasks used for an assignment configuration</li> <li>• Assignment objects</li> <li>• Attributes</li> <li>• Mapping sets and mappings</li> <li>• Rule categories, rule sets, and rules</li> </ul>
Assignment Mapping Set Components	How the mapping set components work together in assignment processing.
Examples of Creating Assignment Mappings	How to create different types of assignment mappings: attribute, dimension, and literal.
Assignment Rule Components	How the following assignment rules components work together: rule categories, rule sets, and rules.
Examples of Creating Assignment Rules	How to create assignment rules using rule sets, rules, conditions, and actions.

### Related Topics

- [Considerations for Configuring Assignment](#)
- [Assignment Mapping Set Components](#)
- [Examples of Creating Assignment Mappings](#)
- [Assignment Rule Components](#)
- [What types of assignment rules can I create?](#)

# Implementation Concepts for Work Assignment

## Overview of Work Assignments

You use the assignment engine to assign resources (for example, service personnel or territory owners) to the business objects they must work on, such as a service request. Being assigned to business objects gives resources and their manager's visibility into the business object.

You also use rule-based assignment to assign additional resources to objects.

## Candidate and Work Objects

When setting up assignments, you must be familiar with two types of assignment objects: candidate objects and work objects.

- Work objects are the business objects that are assigned, for example, service requests.
- Candidate objects are the possible pool of assignment candidates, for example, resources.

## Rule-Based Assignment

Rule-based assignment lets you set up additional rules that are used to assign resources to work objects. After you set up the rules containing the conditions that records must meet when resources match the rule conditions, they're assigned to the object.

For example, you use rules to assign a certain agent to a certain queue when the customer is located in a specific state or region.

Rule-based assignment requires that you plan your rules, create the rules using the rules UI, and set profile options to configure the assignment behavior, in addition to any scheduled processes that must be run.

## Assignment Profile Options

Each of the business objects available in assignment has its own set of profile options that enable you to further configure the application behavior.

## Scheduled Processes

Scheduled processes are batch jobs that capture data and permit business objects to act on that data. You must schedule several processes when using assignment. See the *Service Request Queue Assignment* topic in the Oracle Fusion Cloud Sales Understanding Scheduled Processes guide.

## Assignment Reports

You use the Diagnostic Dashboard to generate reports about the assigned objects and the volume of territory data involved in assignment.

## Assignment Resources

To learn more about assignment, refer to the following resources:

- Online help: Use the keyword **assignment** to search for the relevant topics.
- Assignment Resource Center: See the Assignment Manager Resource Center page on My Oracle Support (Doc ID 1522958.1) for more resources.

## Assignment Mappings

### How do I export and import assignment objects and rules setup data?

You can understand how to export and import assignment objects and rules setup data, along with the points to consider while moving the setup data in this topic.

Almost all application implementations require moving functional setup data from one instance into another at various points in the life cycle of the applications. For example, in an enterprise application implementation, a development or test instance is first deployed before deploying a production instance. You can move functional setup configurations for assignment objects or assignment rules from one application instance into another by exporting and importing configuration packages from the Manage Configuration Packages page.

To export and import assignment setup data, start by defining an implementation project for the required assignment setup task. The following are some of the examples of assignment tasks:

- Manage Customer Center Assignment Objects
- Manage Service Assignment Manager Objects

The Manage Configuration Packages setup task exports the assignment objects or rules setup data.

A configuration package contains the setup import and export definition. The setup import and export definition is a list of setup tasks and their associated business objects that identifies the setup data for export as well as the data itself. You generate the setup export and import definition by selecting an implementation project and by creating a configuration package. The tasks and their associated business objects in the selected implementation project define the setup export and import definition for the configuration package. In addition, the sequence of the tasks in the implementation project determines the export and import sequence.

You can export a configuration package once you create it, or at any time in the future. During export, appropriate setup data is identified based on the setup export definition, and is added to the configuration package. The setup data in the configuration package is a snapshot of the data in the source application instance at the time of export. Therefore, publish the assignment objects and rules before exporting them.

After the export completes, you can download the configuration package as a zipped archive of multiple XML files, move it to the target application instance, and upload and import it. Review and publish the assignment objects and rules setup data in the target application instance to make them available for assignment processing.

## Points to Consider to Export and Import Setup Data

Based on your implementation, you can follow different approaches while exporting and importing assignment setup data.

Consider the following points:

- Because your implementation is using rule-based assignment, the implementation project must include both the Assignment Objects and Assignment Rules setup tasks.
- Retain the default sequence for the tasks and business objects.

The application lets you delete assignment objects, assignment attributes, rule categories, rule sets, rules, and conditions in an environment, for example test. If that setup data is exported, and then imported into another environment, for example production, the data in the target database isn't removed.

If your implementation plans to import and export setup data for assignment objects and assignment rules, ensure not to delete assignment objects, rule categories, rule sets, and rules. Set them to inactive in case you want to delete them. Additionally, don't delete assignment rule conditions. Instead, set the rule to inactive and then recreate the rule excluding the condition that's no longer needed.

### Related Topics

- [How do I export and import assignment objects and rules setup data?](#)

## Assignment Rules

### How You Define Queue Assignment Rules

You can use assignment rules to automatically assign service requests (SRs) to queues when the SRs are created or updated. And these assignment rules can be run on a schedule.

SRs are treated as work objects and queues are treated as candidate objects. You can define your rules to select the best candidate (queue) for each work object (SR).

**Note:** SR assignment rules are defined using rule-based assignment. Territory-based assignment doesn't apply to SRs.

Defining SR assignment rules requires some forethought. Consider the following before you define these rules:

- The attributes of queues that you want to use as criteria for your rule assignments.
- The attributes of SRs that you want to use as criteria for your rule assignments.
- The rule sets you want to create.
- The rules to include in each rule set.

**Note:** You must define queue candidate objects before you start defining rules for SR assignment objects.

### Related Topics

- [Assignment Rule Components](#)
- [Update Existing Setup Data](#)
- [Create a Queue](#)
- [What happens when I change queue properties?](#)

## How do I manage assignment objects?

You need to select attributes from the service request (SR) assignment object that you want to make available in your rules. But note that this procedure is optional, because ready-to-use fields are already provided for all the objects.

**Note:** You must not modify the configuration for any of the ready-to-use objects. If you modify the configuration, the Service Request Queue Assignment process can't run successfully. But you can add new attributes or new child entities for the objects.

(Optional) To manage SR assignment objects:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Service Assignment Objects
2. On the Manage Service Assignment Objects page, add the queue attributes that you want to be available when you're setting up your rules:
  - a. Click **Queue**.
  - b. Click the **Attributes** tab.
  - c. Add attributes to the list by clicking the **Plus** icon, and then selecting the **View Object Attribute** from the drop-down list.
  - d. Click **Save**.
3. Add the service request attributes that you want to be available when setting up your rules:
  - a. Click **Service Request**.
  - b. Click the **Attributes** tab.
  - c. Add attributes to the list by clicking the **Plus** icon, and then selecting the **View Object Attribute** from the drop-down list.
  - d. Click **Save**.

## Enable Definition of Rules Based on Tags

You can define rules based on the tags associated with service requests (SRs).

For example: If an SR is associated with the performance tag, then assign it to the Performance queue. If an SR is associated with the testing tag, then assign it to the Testing queue.

SR tags are applicable for HR Help Desk SRs too, and you can also define rules based on HR Help Desk SR tags.

**Note:** This procedure is optional. You may want to use tags, but you may still not require rules related to tags.

To enable defining of rules based on SR tags:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Service Assignment Objects
2. On the Manage Service Assignment Objects page, in the **Name** column, click the arrow next to the **Service Request** object.
3. Click **Create Child**.
4. In the **Name** field of the Create Child Assignment Object window, specify the name as SR Tags.
5. In the **View Object Instance** field, select **SrTagRules** from the drop-down list.
6. Click **OK**.
7. In the SR Tags: Details region of the page, click the **Attributes** tab.
8. Select the **Add** icon.
9. In the **View Object Attribute** column, select **Tag** from the drop-down list.
10. Click **Save**.

You can now define rules based on SR tags.

## How do I manage assignment rules?

Let's go over how you define the rules for service assignment.

Here are some guidelines that you need to follow when you're defining matching rules for assigning work items to queues:

- You must define the rule set with Number of Candidates = 1. The application enables only one queue to be assigned to a service request (SR).
- You have the option to select or deselect the Use Score option on a rule set. If you select Use Score, then for every rule in the rule set, you must indicate the amount to increase the score when the rule is true. You must then associate the rule set to queues that receive that score. All the rules in a rule set are executed, and the queue with the highest total score is selected.
- If the rule set has multiple rules and you didn't select the Use Score option, you must define the criteria for each rule to be mutually exclusive from other rules in the rule set. This ensures that the resulting queue assigned by the application is predictable in all situations.

You can use the operators listed in this table to define the conditions for SR assignment rules.

Operator	Description	Value	Used in hierarchy?	Example
Equals	The value of a field equals a specific value.	Single	No	If the rule condition is set as <i>Service Request Severity Equals High</i> , only an SR with the severity value of High matches the condition.

Operator	Description	Value	Used in hierarchy?	Example
Does not equal	The value of a field doesn't equal a specific value.	Single	No	If the rule condition is set as <i>Service Request Severity Does not equal High</i> , an SR with severity value of Low or Medium matches the condition.
In	The value of a field is one of a list of values.	Single or Multiple	No	If the rule condition is set as <i>Service Request Problem type Code In Docs, Product</i> , an SR with the problem type code value of Docs or Product matches the condition.
In including children	The value of a field is one of a list of values.  Indicates that the rule applies if an attribute value matches to any of the attributes in the parent-child hierarchy of the current attribute.	Single or Multiple	Yes	If the rule condition is set as <i>Service Request Product Group In including children Apple</i> , any SR with the Apple product group or any of its children, such as iPhone, iPhone 6s, iPhone 7, iPad, iPad1, and iPad 2 match the condition.
Not in including children	The value of a field isn't in a list of values. This value is only relevant for category or product fields that are hierarchical.  Indicates that the rule applies if the specified attribute value matches the top level of the attribute. This option doesn't include the attribute values of the children of the current attribute.	Single or Multiple	Yes	If the rule condition is set as <i>Service Request Product Group Not in including children iPad</i> , an SR with the Product Group value of iPad or any of its children, such as iPad1 or iPad2 doesn't match the condition. However, an SR with the Product Group value of Apple, iPhone, or iPhone 6s matches the condition.
Not in	The value of a field isn't in a list of values.	Single or Multiple	No	If the rule condition is set as <i>Service Request Problem Type Code Not in Docs, Product</i> , an SR with the problem type code value of User doesn't match the condition. However, an SR with a problem type code of Docs or Product is a match.
Is blank	The value of a field doesn't contain a value.	N/A	No	If the rule condition is set as a <i>Service Request Internal Priority Code Is blank</i> , an SR without an internal priority code value is a match.

Operator	Description	Value	Used in hierarchy?	Example
Is not blank	The value of a field contains any value.	N/A	No	If the rule condition is set as <i>Service Request Account Is not blank</i> , an SR with an associated account is match, but not an SR without an account.

To manage SR assignment rules:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Service Assignment Rules
2. On the Manage Service Assignment Rules page, select a **Category** based on the following.
  - o **Generic Queuing Rules:** Rules set for all types of work items.
  - o **HR Service Request Queuing Rules:** Rules set for HR Help Desk SR.
  - o **Service Request Queuing Rules:** Rules set for CRM SR.
3. Create a new rule set by clicking the **Plus** icon in the **Rule Sets** work area, and then enter the required information.
4. Create rules for the rule set by clicking the **Plus** icon in the **Rules** work area.
5. In the **Create Rule** window, enter a name for the rule in the **Name** field.
6. From the **Rule Applies If** drop-down list, select **Any conditions met**.
7. Add a condition by clicking the **Plus** icon in the **Conditions** work area, and then define the required attribute.
 

If an attribute is hierarchical, such as Category Name and Product Group, **Not In Including Children** and **In Including Children** operators are displayed as choices. For more information about the operators, see the table with the list of operators.
8. (Optional) Add additional conditions.
9. In the Action: Assign Queue region, click the **Plus** icon to select a queue.
10. In the **Select and Add Queue** window, search for and select a queue.
11. Click **OK**.
12. Click **Save and Publish** to publish the assignment rules.

The service assignment has been defined.

**Note:** You must republish the assignment rules each time the rule is changed. Also republish the rules each time the associated queue is deleted, enabled, or disabled.

## How do I set queue assignment rules?

You can create assignment rules by using rule sets, rules, conditions, and actions.

The assignment engine uses your rules to evaluate and recommend candidate assignments for specified work objects. For example, you can assign all service requests (SRs) with a certain product code to one queue, or you can assign an SR to a critical queue if the severity of the SR is high.

You can also create assignment rules to assign real-time work items such as chat notifications, to queues. Both real-time work items and non-real-time work items can be assigned to the same queue.

**Note:** A particular work item can be assigned only to a single queue. So it's good to be careful while defining rules. You can't define different rules that assign the same work item to different queues.

To create a service assignment rule:

1. In the Setup and Maintenance work area, go to the following:
    - o Offering: Service
    - o Functional Area: Communication Channels
    - o Task: Manage Service Assignment Rules
  2. On the Manage Service Assignment Rules page, select from the **Category** drop-down list:
    - o **Service Request Queuing Rules** for SRs
    - o **Generic Queuing Rules** for chat
  3. Do one of the following:
    - o Create a rule set by clicking the **Plus** icon and specifying the required values.
    - o Select an existing rule set.
  4. Create a rule within the rule set by completing the following steps:
    - a. Click the **Plus** icon in the **Rule set: Rules** region.
    - b. On the Create Rule page, specify a rule name.
    - c. (Optional) Specify a description, an effective start date, and an end date for the rule.  
If you don't select an effective start date and end date, the rule comes into immediate effect and lasts indefinitely.
    - d. (Optional) Select the Inactive option if you want to enable the rule at a later date.
- Note:** You can create multiple rules within a rule set.
5. Specify an assignment condition as described later in this topic, in the "Specify a Condition and an Action" section.  
This assignment condition is evaluated before a rule-based assignment is made.
  6. Select a queue to which an SR is assigned if the condition is met.

## Specify a Condition and an Action

After specifying the rule details, specify one or more conditions and select a queue to which the SR is assigned, if the condition is satisfied. When the specified condition is satisfied, the SR is assigned to a queue. For example: If the severity of the SR is equal to High, assign the SR to the Critical\_Queue.

To specify a condition and an action:

1. Select an option from the **Rule Applies If** drop-down list.

You can choose to perform the action if all of the conditions are met or if one of the conditions is met.

2. Click the **Plus** icon to add a condition.

**Note:** If you don't add a condition, all your work items are assigned to the queue that you add in step 4.

3. Select the object, an attribute, an operator for the condition, and a value.

For example, **Service Request** is the object, **Severity** is the attribute of the object, **Equals** is the condition, and **High** is the value. Hence, the condition is **If Service Request Severity is equal to High**. To create a rule for chat, select **Any** from the **Object** drop-down list.

4. Add an action to be performed when the condition is satisfied. Click the **Plus** icon to select and add a queue.

**CAUTION:** Oracle recommends that you always add an action. If you don't add an action, the assignment engine acts unpredictably and you may face issues in the assignment of work items to queues.

5. Search for a queue, select the required queue from the list, and click **Done** to add the queue to the action.
6. Click **Save and Close**.

#### Related Topics

- [How do I update existing setup data?](#)

## Tips for Creating Assignment Rules and Rule Sets

### Summary of Tips for Creating Assignment Rules and Rule Sets

To maximize the effectiveness of your assignment rules, Oracle recommends that you follow these tips while creating them. Each of them is described in detail in separate topics:

- Add a condition and an action for every rule.
- Create unique rules.
- Create minimum number of rule sets.
- Publish rules after you rename them.
- Set incomplete rules and rule sets to inactive.

### Add a Condition and an Action for Every Rule

It's important to remember that you always add a condition and an action for every rule. Any rule without a condition or action can lead to unpredictable results.

- If you don't add a condition, any work item will match this rule. This type of rule will conflict with other well-defined rules. This situation results in a work item matching multiple rules, so it's randomly assigned to any queue that matches any of these rules.

- Add an action to be performed when the condition is satisfied. You add a queue as part of the action. If you don't add an action, the Assignment Manager acts unpredictably and you may face issues in the assignment of work items to queues.

**Note:** Some examples of incomplete rules that you must avoid:

- If no condition, then assign the work item to the Q1 queue.
- If severity of the work item is high, then you don't specify any queue.

For more information, see [Set Rules for Queue Assignment](#).

#### Related Topics

- [How do I set queue assignment rules?](#)

## How do I create unique rules?

Here are some pointers for creating unique rules:

- You must create unique rules in such a way that two different rules don't match the same work item. If multiple rules match the same work item, the Assignment Manager randomly picks one of those matching rules.
- You must also ensure that you don't have duplicate or identical rules. Duplicate or identical rules doesn't mean identical conditions. It means that multiple rules match the same incoming work item, even if the rules are defined on different fields or a combination of fields.
- If you can't create unique rules, you must put the rules in the same rule set and use scoring to determine which queue is picked by the Assignment Manager. You have the option to select or deselect the Use Score option on a rule set. If you select Use Score, then for every rule in the rule set, you must indicate the amount to increase the score when the rule is true. You must also set Filter as Top X and Number of candidates as 1. All the rules in a rule set are executed, and the queue with the highest total score is selected.

For more information, see [Manage Service Assignment Rules](#).

**Note:** Scoring applies only inside a rule set. But you may have scenarios where identical rules are present in different rule sets, and multiple rules from different rule sets match a work item. In such cases, the Assignment Manager randomly picks one of those identical rules.

Let's see a few examples of how you can make a rule unique:

### Example 1 for Making a Rule Unique

Let's say you write the following rules:

- **Rule 1:** Variable A=1 and Variable B=2 (Action: Assign work item to Q1)
- **Rule 2:** Variable A=1, Variable B=2, and Variable C=3 (Action: Assign work item to Q2)

Then the Variable A=1 and Variable B=2 part is common in both the rules. When an incoming work item satisfies Rule 2, it also satisfies Rule 1. And the Assignment Manager randomly picks one of the two.

To make these two rules unique, you can add a condition about variable C in Rule 1. For example, you can add the following condition to Rule 1: C isn't equal to 3.

**Note:** Rule 1 and Rule 2 are identical if you get a work item with all 3 variables and both rules are matching.

## Example 2 for Making a Rule Unique

Let's consider the following example involving different rule sets. In Rule Set 1, you have a rule with the condition C1=A. In Rule Set 2, you have a rule with the condition C2=B. Here, C1 and C2 are different fields.

Now let's say you have a work item where C1=A and C2=B. These two rules aren't unique, and they both match the work item. In such a scenario, any one of the rules is randomly picked, and a queue is selected. But suppose you want the work item to be assigned only to a queue called Q1 because it has C1, and you want C2 to be ignored. Then you must make the rules unique by setting conditions such as the following:

- **Rule 1:** If C1 equals A and C2 isn't equal to B, then assign to Q1.
- **Rule 2:** If C1 equals A and C2 equals B, then assign to Q2.

**Note:** If the matching rules are in different rule sets, you can't apply scoring. If the matching rules were in the same rule set, scoring would help. For example: You set the scoring of Rule 1 to 10 and Rule 2 to 5.

## Create Minimum Number of Rule Sets

The Assignment Manager is designed to return only one queue for every work item.

If two rules from different rule sets match a work item, then the Assignment Manager randomly picks between the rules. So the work item may not be assigned to the queue that you would want. To avoid such situations, it's good to have only one rule set if possible. And you can apply scoring for the rules if required. That way, only one rule matches a work item. Regardless of the company size, Oracle recommends deploying only one rule set.

**Note:** You can still have multiple rule sets if you ensure that the rules within these rule sets are all unique. And within each rule set, you can have scoring for the rules. But if you have the same or similar rule in different rule sets, two rules from different rule sets can match the same work item.

Here's what the Assignment Manager does when you have multiple rule sets:

1. The Assignment Manager checks all rule sets. In one round of assignment, it checks all the rules under Rule Set 1, all the rules under Rule Set 2, and so on.
2. It finds some matching rules. Let's say the matching rules are Q1 and Q2 under Rule Set 1, and Q3 under Rule Set 2.
3. It randomly picks a rule among Q1, Q2, and Q3.

**Note:** You must not create more than the maximum limit of 500 rule sets. The Assignment Manager selects only 500 rule sets alphabetically to process them. But within every rule set, you can have any number of rules. An upper limit doesn't apply to the number of rules.

## Publish Rules After You Rename Them

Oracle recommends that whenever you rename a rule, you must publish it immediately.

Let's say you create or rename a rule, and you don't publish it immediately. Sometimes, another administrator may delete it or create another rule with the same name. This causes confusion for the Assignment Manager while publishing. For the same reason, you must also avoid renaming a rule and deleting a rule in the same operation. You must publish the rule after every individual operation.

## Set Incomplete Rules and Rule Sets to Inactive

You must set any incomplete rules or rule sets to inactive. While creating a rule or rule set, you must set the initial status to inactive.

This way, you avoid the risk of incomplete rules being published. You must first complete adding all the conditions and actions to a rule. After that's done and you're confident that the queue works as required, you can set it to active and publish it.

Here's why you must be careful. Suppose you created a rule and saved it, but you couldn't complete the rule for some reason. So you may not have added a condition and action to determine the queue for assignment. And let's say another administrator publishes the rules. Whenever any administrator publishes the rules, all active rules and rule sets that are saved until then are published, irrespective of who has created them. Incomplete rules that are set to active status are also published. When this happens, the Assignment Manager may pick a rule other than what you would prefer.

## Work Assignments

### How do I set agent capacity?

Capacity indicates the maximum number of open work items of a certain type that an agent can handle. Capacity is configured at a global level for various types of work items by using the Manage Capacities page.

Capacity is calculated separately for real-time work items such as SRs. For example: If the global capacity for open SRs is 30, an agent who's working on 30 open requests is considered to be 100 percent occupied.

If an agent who's accepting chat offers changes their presence state from present or available to busy, then the agent's chat availability status is automatically changed to unavailable, and no chats will be sent to that agent. For non-real-time work, agents can remain available, though. For instance, an agent may go to lunch and change presence state to busy which prevents real-time work offers, but the agent could still get non-real-time work assigned (assuming the agent has capacity).

If a queue has multiple agents, the work item is assigned to the agent with the maximum free capacity of the relevant type. If more than one agent has the same capacity, the work item is assigned to the agent with the maximum overall free capacity. For more information about setting global capacity, see "Set Channel Capacity".

## Agent Presence

Presence indicates whether an agent who has signed in to the application is interacting with the application. Agents set their presence through the **Settings and Action** menu.

An agent can be online, but may not be available to handle work items. If an agent isn't signed in, then the presence is set to offline.

To configure the presence toolbar, see the [Configure Presence and Availability Privilege](#) topic in this chapter.

## Agent Availability

Agent availability indicates whether an agent is available. Agents are automatically assigned SRs. They don't need to make themselves available to handle an interaction or a work item. After an agent signs in to the application, he can set his availability to handle an interaction.

Agents can specify their availability for real-time and non-real-time work items. This means that agents can specify if they're available for chat, for SR, or for both, by using the icons on the Omnichannel toolbar.

If an agent's presence is set to **Busy**, but availability is set to non-real-time work items, an agent can still be assigned SRs. However, if an agent is available to handle real-time work items, the agent's presence is automatically set to **Available for chat interactions**.

If an agent who's accepting chat offers changes their presence state from present or available to busy, then the agent's chat availability status is automatically changed to unavailable, and no chats will be sent to that agent. For non-real-time work, agents can remain available, though. For instance, an agent may go to lunch and change presence state to busy which prevents real-time work offers, but the agent could still get non-real-time work assigned (assuming the agent has capacity).

**Note:** Based on the `SVC_OMNI_DISABLE_WORK_ITEM_AVAILABILITY_SELECTION` profile option setting, the application restricts agents from blocking new work assignments. The application assigns new work to agents until their maximum capacity is reached.

### Related Topics

- [How can I automatically route work assignments to agents?](#)
- [How do I configure the presence and availability privilege?](#)

## Severity and Age of Requests

Severity indicates the priority of a service request . An SR is assigned to an agent based on its severity.

This means that an SR with a higher severity is taken up earlier for resolution. An administrator can set the values for severity in the Setup and Maintenance work area. For more information, see ["Add Service Request Severity Values"](#).

The age of an SR is also a factor while assigning work. A request that's waiting in the queue for a longer period of time is given higher priority.

### Related Topics

- [Add Severity Values to Requests](#)
- [Prevent Starvation of Low Priority Work Requests](#)

## How does the default queue work?

If you have enabled Omnichannel, there's a ready-to-use queue named Default. You can set the Default queue to manual or automatic, depending on your company's requirement.

Be aware that the Default queue contains work items that you can't place in any other queue because they don't match any of the defined assignment rules. You can add agents and teams to the Default queue and also modify the queue properties, but you can't disable or delete this queue.

### Note:

- SRs that don't match any rules are assigned to the Default queue only when Omnichannel is enabled. When Omnichannel is enabled, here's what happens:
  - If you set the Default queue to automatic, then the work items are automatically assigned to the agents who are available and have free capacity.
  - If you set the Default queue to manual, then the agents must manually assign the work items to themselves. But you must remember that chats can't be assigned manually. So if chats are routed, then you must set the Default queue to automatic.

Here's what Oracle recommends:

- The preferred way of assigning an SR to a queue is by using Omnichannel assignment. Let's say you have enabled Omnichannel for SR assignments. And you may be assigning SRs to the Default queue either manually or automatically by using assignment rules or groovy scripts. Either way, it's important and highly recommended that you assign active agents to the Default queue, so that SRs can be assigned to the agents.
- If you set the Default queue to automatic and you don't assign agents to it, SRs assigned to the Default queue could remain unattended and eventually impact performance. You could miss the SLAs and your customers don't get responses on time.
- If you don't assign any agents to the Default queue, then you must set the Default queue to manual. But if you set it to manual, you must ensure that the SRs are answered.
- Let's say you assign agents to the Default queue, but you prefer to use it as a catch-all queue and not for automatic assignment of SRs to agents. In such cases, you can set the default queue to manual. This would depend on your company's requirement.
- If you enable chat, it's absolutely necessary that you set the Default queue to automatic and assign agents to the queue. When the Default queue is automatic, all those chats that don't match any rules or they match a manual queue, are assigned to the Default queue. If you set the Default queue to manual, such chats aren't routed to any agent, and nobody would respond to those chats.

## How do I assign work to agents?

Work assignment refers to interactions or work items such as service requests (SRs) being assigned to queues for processing.

Work items are assigned to a queue and an agent is assigned to one or more queues. All work items in a queue are handled by the assigned agents.

A work item can be assigned to an agent manually or automatically based on whether the associated queue is automatic or manual. For more information about the types of queues, see *"How to Assign Agents to Work Items"*.

**Note:** In automatic queues, the priority of SRs is calculated based on severity and wait time. SRs with highest severity are assigned first. If there are multiple SRs with the same severity, those SRs that have been in the queue for the longest time are assigned first. But this rule applies only to bigger volumes of SRs and a large number of agents and not on a small scale. For more information, see *"Order in Which SRs Are Assigned"*.

Work assignment in an automatic queue is done based on the following aspects:

- Agent capacity
- Availability of the agent
- Presence of the agent
- Severity of the work item
- Age of the work item

**Note:** Omnichannel must be enabled to use the settings for presence of the agent, availability of the agent, and agent capacity.

Here are the various ways an SR can be assigned to an agent:

- Manually set the **Assigned To** field in the Summary tab of the Service Request Details page.
- Click **Assign to Me** from the **Actions** menu on the Service Request Details page.
- Enable Omnichannel.

## In what order are requests are assigned?

Here's how service requests (SRs) in an automatic queue are assigned to agents.

The application calculates the priority of SRs based on severity and waiting time. SRs with the highest severity are assigned first. If there are multiple SRs with the same severity, SRs that have been in the queue for the longest time are assigned first.

**Note:** It's possible that you may see exceptions to this rule when you're testing with a small number of agents. That's because the application is designed to work with millions of SRs and thousands of agents per day. And to do that, it has massive parallel processing power.

There are multiple servers in your production environment. Each server tries to assign SRs, competing with other servers to assign all the work among all available agents. SRs are assigned on multiple servers in parallel, otherwise the assignment tends to lag behind the incoming work.

Suppose your production environment has 15 servers. The application would act as if it's assigning SRs in batches of 15. The SRs from 1 to 15 would be assigned before the SRs 16 to 30. But the order within each batch isn't guaranteed. The first server that finds an available agent makes the assignment.

## How do I assign work to a queue?

Here are the various ways in which you can assign a service request (SR) to a queue:

- Open an SR. From the **Queue** drop-down list, manually select the queue to which you want to assign the SR.
- Enable Omnichannel, which runs the queue assignment rules when the SR is created or when the queue is deleted from the SR.
- Click **Run Queue Assignment** from the **Actions** menu, which runs the queue assignment rules.
- Enable the Assign Service Request to Queue on Create profile option, which runs the queue assignment rules when the SR is created. The process is described below.
- Schedule the Queue Assignment job that runs the queue assignment periodically and processes all the open SRs that aren't assigned to a queue.

The preferred way of assigning an SR to a queue is by using Omnichannel assignment. Enabling Omnichannel has the following advantages:

- Enabling Omnichannel provides more features than queue assignment. It also enables the automatic assignment of agents. But if your business only requires queue assignment, you must carefully evaluate whether you need to enable Omnichannel.
- Only if you enable Omnichannel, the SR is assigned to the Default queue when the Assignment Manager rules haven't been defined or when the selected SR doesn't satisfy any active rule.
- When Omnichannel is enabled, automatic assignment of SRs to agents is always enabled on the Default queue.

Suppose you're assigning SRs to an automatic queue either manually or automatically by using assignment rules or groovy scripts. If you enable Omnichannel, Oracle recommends that you also assign active agents for the automatic queue, so that SRs can be assigned to the agents.

**Note:** If you don't assign agents for the automatic queues, SRs assigned to those queues could grow exponentially over time. And this causes the application to slow down.

## Enable the Assign Service Request To Queue On Create Profile Option to Assign an SR to a Queue

Here's how you enable the Assign Service Request To Queue On Create profile option:

1. Sign in to the application as an administrator.
2. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Service Request
  - Task: Manage Service Request Profile Options

**Note:** Alternatively, you can open the Tasks panel tab and search for the **Manage Service Request Profile Options** task.

3. On the Manage Service Request Profile Options page, click **SVC\_ASSIGN\_TO\_QUEUE\_ON\_CREATE**.
4. Navigate to the SVC\_ASSIGN\_TO\_QUEUE\_ON\_CREATE: Profile Values region of the page.
5. In the **Profile Value** drop-down list for the Site **Profile Level**, select **Yes**.

6. Click **Save and Close**.

**Note:** If Omnichannel is enabled, this profile option is ignored.

## Add Severity Values to Requests

Service request (SR) severity indicates the priority of an SR. An SR of a higher severity bypasses other SRs of lower priority in a queue, and is taken up for resolution sooner.

As an administrator, you can set the severity values in the application.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Service Request
  - o Task: Manage Service Request Severity Values
2. The `ORA_SVC_SR_SEVERITY_CD` lookup type contains the lookup codes. To add a new severity value, click the plus icon and specify the following values.
  - o **Lookup Code:** Enter the new lookup code. For example, High Priority.
    - Note:** The **Lookup Code** is a text value and must be used for display purpose only. The value that you specify in the **Lookup Code** field doesn't affect the actual severity of an SR. The actual severity is determined by the **Severity Ranking** field.
  - o **Severity Ranking:** Enter a value that depicts the priority level. An SR severity with a lower severity ranking is considered as having higher priority when they are routed to agents. For example, a severity ranking of 2 is considered higher in priority when compared to a severity ranking of 5.
  - o **Enabled:** Select to enable the severity value. SRs with disabled severity aren't displayed on the Service Request Edit page.
  - o **Start Date** and **End Date:** Specify a date range within which the severity value is valid. If you don't specify a date, the severity value remains valid forever.
  - o **Meaning:** Enter an optional meaning for the severity value. For example, for Priority 1, specify the **Meaning** as Critical.
  - o **Description:** Enter an optional description.
  - o **Tag:** Specify a tag that's used to differentiate an SR of a certain severity from the others. For example, specify **Tag** for Priority 1 as `COLOR=#ff0000,#FFFFFF` to change the color of a Priority 1 SR. In this case, a Priority 1 SR is displayed in red text with white background.
3. Add more lookup codes as required.
4. After you finish, click **Save and Close**.

### Related Topics

- [How do I assign work to agents?](#)
- [How do I update existing setup data?](#)

## Omnichannel

### How can I automatically route work assignments to agents?

Automatic routing of work to agents is done through Omnichannel. So, if you want the work assignments for agents to be automatically routed, you must enable Omnichannel.

**Note:** To view the Omnichannel tasks, you must enable the **Omnichannel Routing** feature under the **Communication Channels** offering.

To enable Omnichannel and its notifications, here's the list of profile options that you must configure.

Profile Option	Description
SVC_ENABLE_OMNI	Enables Omnichannel.
SVC_OMNICHANNEL_BROWSER_NOTIFICATION_ENA	Enables browser notifications about work assignments.
SVC_OMNICHANNEL_DESKTOP_NOTIFICATION_ENA	Enables desktop notifications about work assignments. When it's enabled, you can view notifications even if you aren't actively viewing the application pages.
SVC_OMNICHANNEL_NOTIF_MULTI_AGGR_THRESHOLD	Specifies the maximum number of forced notifications that can be individually stacked before the rollup of consolidated notifications occurs.
SVC_OMNICHANNEL_BROWSER_NOTIFICATION_AUTO_INT	Specifies the number of seconds that lapse before the browser notifications are automatically closed.
SVC_INTERACTION_RETENTION_DAYS	Specifies the number of days to retain interactions before they're purged from the database. Must be set to 1 or greater for the job to run.
SVC_EVENTS_RETENTION_DAYS	Specifies the number of days to retain events before they're purged from the database. Must be set to 1 or greater for the job to run.
SVC_INTERACTION_DISPLAY_DAYS	Specifies the number of days from the past since when the interactions can be viewed.
SVC_OMNI_DISABLE_WORK_ITEM_AVAILABILITY_SELECTION	Disables the option for the agents to change their work item availability on the Omnichannel toolbar: <ul style="list-style-type: none"> <li><b>Chat:</b> Disables the option for the agents to change their chat work item availability.</li> <li><b>Non-real-time Work:</b> Disables the option for the agents to change their non-real-time work item availability.</li> <li><b>All:</b> Disables the option for the agents to change any work item availability.</li> <li><b>None</b> (default value): Agents may change any work item availability.</li> </ul>

To enable Omnichannel and its notifications:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Omnichannel Profile Options
2. In the **Manage Omnichannel Profile Options** window, complete the following steps for each of the listed profile options:
3. Click the profile option name.
4. Navigate to the Profile Values region of the page.
5. Set the **Profile Value** for the Site **Profile Level** as follows:
  - o For the first three profile options in the table, set the value to **Yes** to enable the profile option.
  - o For the remaining profile options in the table, specify a suitable value as described.
6. Click **Save**.

## How do I set channel capacity?

Channel capacity indicates the maximum number of active interactions in a channel that can be handled by an agent. When the number of active interactions in an agent's queue reaches the specified capacity, the agent is considered to be 100 percent occupied.

Active non-real-time interactions are determined by the qualifying statuses. Any interaction that's in one of the specified qualifying statuses is considered to be an active interaction.

Here are some helpful pointers for setting capacities for your agents:

- Oracle recommends not to set a high number for capacity. The number should be relatively small so that routing can balance the work to agents.
- Agent capacity for a non-real-time channel such as service requests (SRs) is independent of the capacity for real-time channels such as chat. For example, let's suppose that the SR capacity is set to 30 and chat capacity is set to 2. And let's say an agent is handling 15 open SRs and 2 chats. Then he's considered to be 50 percent occupied for non-real-time work and 100 percent occupied for real-time work.
- Let's see another example of how the workload is calculated when you have multiple types of work items such as SRs, activities, and escalations. Suppose an agent has a capacity of 5 for SRs and 2 for escalations. This doesn't mean that the agent can work on 5 SRs and 2 escalations simultaneously. It means that one SR takes up 20 percent of his capacity and one escalation takes up 50 percent of his capacity.

To set channel capacity:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Capacities

The Manage Capacities page displays capacities for real-time and non-real-time channels. To change the total channel capacity, modify the default values in the **Capacity** fields for the channels.

2. To provide queue owners and customer service managers the ability to modify the channel capacities for individuals by overriding the global default capacities:

In the Override Individual Capacities region, select the **Enable Channel Capacities to Be Overridden for Individuals** check box.

For more information about overriding individual channel capacity settings, see the Oracle Fusion Service Using Service Center in the Classic User Experience guide.

3. To change the capacity of a non-real-time work:
  - a. In the **Work Assignments** region, modify the default value in the **Capacity** field to a new value .
  - b. The status in the **Qualifying Status Values** column indicates the status of the work items that determine the capacity. For example, if the status is set to **New, In Progress**, only the work items that are in the specified status add up to the total capacity. To specify the active statuses, click the status value.
  - c. In the **Qualifying Status Values** window, select a status from the **No Effect on Workload** list and move it to the **Adds to Workload** list to qualify the status as active.
  - d. Click **Apply**.
4. To change the capacity of a real-time work, change the value in the **Capacity** field in the **Communication Channels** region.
5. In the **Qualifying Status Value** window, add a new status to **Adds to Workload** list and click **Apply**.
6. Click **Save and Close**.

**Note:** When you export or import the functional setup data for the Service offering by using the export and import feature in Functional Setup Manager, the Manage Capacities setup is also exported or imported. But the value of the **Override Individual Capacity** check box isn't exported or imported. You must select or deselect the check box manually.

## How do I configure the presence and availability privilege?

To set the presence and availability, an agent must be given the Manage Omnichannel Presence and Availability privilege.

This privilege is available by default to the following job roles:

- Customer Service Representative
- Customer Service Manager
- Administrator

To grant the **Manage Omnichannel Presence and Availability** privilege to any other role, do one of the following in the **Security Console**:

- Create a role and provide the privilege to the role.
- Copy one of the default job roles with the privilege and create a role to add the privilege.

For more information about copying job roles, see the *Oracle Fusion Cloud Customer Experience Securing Sales and Fusion Service* guide.

**Note:** After you add the privilege to the new role, you must associate a user to the new role.

*Related Topics*

- [Copy and Edit Duty Roles](#)

## Prevent Work Starvation

### Prevent Starvation of Low Priority Work Requests

Sometimes, a burst of high priority requests may prevent the low priority requests from being assigned to an agent for a long time.

Although high priority requests may come in later, they're assigned first, and the low priority requests are repeatedly kept waiting. That's because the agents are unable to keep up the pace to serve both.

As an administrator, you can dynamically raise the priority of low priority requests after a certain wait time. The benefits are as follows:

- The wait time for lower priority items is reduced, and this ensures a balance between high priority and low priority requests.
- Lower priority requests are served fairly, thereby improving customer satisfaction.

### Configure Profile Options to Prevent Work Starvation

To prevent starvation of work requests having a lower priority, you must configure profile options.

The following table shows the profile options to configure for preventing work starvation.

Profile Options	Description
SVC_ENABLE_STARVATION_PREVENTION	<p>Enable prevention of work starvation to avoid work requests having a lower priority from being ignored while assigning work items to an agent.</p> <p>The default value is No.</p>
SVC_STARVATION_PREVENTION_NRT_INTERVAL	<p>Specify the number of minutes after which the priority of an unassigned, non-real-time work request is increased for assigning to an agent.</p> <p>The default value is 180 minutes.</p> <p><b>Note:</b> You must specify a value greater than the average handle time for a non-real-time work request in your company. For more information, see "Set a Profile Value Greater Than the Average Handle Time".</p>
SVC_STARVATION_PREVENTION_NRT_STEP	<p>Specify the step size to increase the priority of a non-real-time work request.</p> <p>The default value is 1.</p>

Profile Options	Description
SVC_STARVATION_PREVENTION_RT_INTERVAL	<p>Specify the number of seconds after which the priority of an unassigned, real-time work request is increased for assigning to an agent.</p> <p>The default value is 30 seconds.</p> <p><b>Note:</b> You must specify a value greater than the average handle time for a real-time work request in your company. For more information, see "Set a Profile Value Greater Than the Average Handle Time".</p>
SVC_STARVATION_PREVENTION_RT_STEP	<p>Specify the step size to increase the priority of a real-time work request.</p> <p>The default value is 1.</p>

To configure the profile options for preventing starvation of work requests having a lower priority:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Work Starvation Profile Options
2. In the Manage Work Starvation Profile Options page, click **SVC\_ENABLE\_STARVATION\_PREVENTION**.
3. In the SVC\_ENABLE\_STARVATION\_PREVENTION: Profile Values region, set the **Profile Value** for the Site **Profile Level** as **Yes**.
4. Click **Save**.
5. Complete the following steps for the remaining four profile options in the table:
  - a. Select a profile option.
  - b. In the Profile Values region, select the Site **Profile Level**.
  - c. In the **Profile Value** field, retain the default value or modify the value according to your company's requirement.
  - d. Click **Save**.

## Set a Profile Value Greater Than the Average Handle Time

The average handle time is the average duration of one interaction of an agent with a customer. You must evaluate the average handle times for real-time and non-real-time interactions in your company.

You must set the profile values for the SVC\_STARVATION\_PREVENTION\_NRT\_INTERVAL and SVC\_STARVATION\_PREVENTION\_RT\_INTERVAL profile options to a much higher value than the respective average handle times. For more information about configuring these profile values, see "Configure Profile Options to Prevent Work Starvation".

Here's an example:

Suppose you have only one agent and he's already engaged in a chat with a customer. So when a new chat comes in, it's in the wait period. If you set your profile value to 30 seconds but your chat handle time is 1 minute, then it's of no

use. Even if you raise the priority, nothing is going to happen. That's because only after 1 minute, the application gets a chance to assign the next chat.

- As your handle time for a chat is 1 minute, you should ideally set the profile value to 3 minutes. Which means that if 3 chats get ahead of a lower priority chat, then you try to raise its priority. That's because a large number of higher priority chats keep on coming in, and they're not letting the lower priority chat to go through.
- You're letting the application give at least 3 chances to assign the lower priority chat. Because in 3 minutes, there are 3 instances when the agent is free and ready to pick up a chat. But if it still doesn't get assigned, then the priority of the chat is raised by 1, and it's picked up because it now has a higher priority.

#### *Related Topics*

- [Configure Profile Options to Prevent Work Starvation](#)

## FAQs About Service Requests and Queues

### Frequently Asked Questions (FAQs) for Service Requests and Queues

This section contains some frequently asked questions (FAQs) when setting up and maintaining service requests and queues. Scroll or search to find answers to common questions.

## Why aren't some service requests being assigned to the Default queue?

Let's say you're creating groovy scripts within Application Composer to perform validation checks, including user permission checks to determine who has access to update the fields in a service request (SR). Then you must ensure that you permit the internal user FUSION\_APPS\_CRM\_ESS\_APPID to update SRs.

The FUSION\_APPS\_CRM\_ESS\_APPID internal user performs operations on behalf of Omnichannel. If the internal user isn't given permission to update SRs from within the groovy script, then Omnichannel is unable to set the Default queue as the target queue. As a result, SRs aren't assigned to the Default queue.

#### *Related Topics*

- [How does the default queue work?](#)
- [Overview of Groovy Scripts](#)

## What happens if a newly created request isn't assigned to a queue?

If a service request (SR) is created without an associated queue, and Omnichannel is enabled, then the routing feature selects a queue.

If the queue is automatic, then the routing feature assigns the associated agent for the SR. If an SR is created with an associated queue, then the routing feature selects only the agent.

## What happens if an associated agent is removed from an open request?

If an associated agent is removed from an open service request (SR) that's in a status of New or any other active SR statuses specified in the Manage Capacities page, then the following happens:

- The routing feature selects a new agent for the SR from the resource pool of that queue, based on the capacity of the associated agent.

**Note:** A new agent is selected only if Omnichannel is enabled and the queue is automatic.

### Related Topics

- [How do I set channel capacity?](#)

## What happens if an open request is disassociated from the current queue?

If an open service request (SR) is disassociated from the current queue, then the routing feature assigns the SR to a new queue, provided the following conditions are true:

- Omnichannel is enabled.
- The **Assigned To** value of the SR is empty.

The SR is subsequently assigned to an associated agent if the queue is automatic and any assignment rules are rerun. If the disassociated SR is in a New status or any other active status specified in the Manage Capacities page, then the agent capacity is calculated before assigning the SR to an agent.

**Note:** If you disassociate an SR from the current queue, then you must clear the **Assigned To** value to ensure that rerouting takes place.

## What happens if a request is reopened?

Here's what happens when a service request (SR) is reopened:

- If the reopened SR is already associated with an agent, then the SR is reassigned to the same agent.
- If the reopened SR isn't assigned to any agent, and Omnichannel is enabled, then the SR is assigned to a queue based on the associated assignment rules.

If the queue is automatic, then the SR is assigned to an associated agent. SRs are assigned based on the set channel capacity for an agent. Only if an SR is in the New, In Progress, or other statuses specified in the **Qualifying Status Values** column in the Manage Capacities page in Setup and Maintenance, it counts for capacity. If the SR isn't in one of these statuses, it doesn't count for capacity, and the SR isn't assigned to the agent. For more information about capacity, see "Set Channel Capacity".

### Note:

- If the status of an SR changes, then it counts for capacity for the agent to whom it's assigned. For example, when the SR status changes from Waiting for Customer to In Progress.
- If the SR isn't assigned to an agent, the routing service starts looking for an agent.

### Related Topics

- [How do I set channel capacity?](#)

## What happens if I mark an assignment object or one of its attributes as inactive?

When you mark an assignment object as inactive, the selected work or candidate assignment object isn't available for assignment processing. When you mark an assignment attribute as inactive, the selected work or candidate object attribute isn't available for assignment processing.

**Note:** The object or attribute can't be set to inactive if there is a mapping set, mapping, or rule defined using the object or attribute.

# 7 Real-Time Channels

## Chat

### How do I configure chat profile options?

Chat profile options let you configure assignment and routing options for chat requests.

You must configure these chat profile options to enable various chat features.

Profile Option	Description
SVC_CHAT_OFFER_NOTIFICATION_TIMEOUT_VALUE	Specifies the number of seconds that lapse before the chat notification is automatically closed.
SVC_ENABLE_CHAT	Enables chat interactions.
SVC_CHAT_TRANSFER_TO_QUEUE_ENABLED	Enables transfer of a chat to a queue by an agent.
SVC_CHAT_IDLE_TIMEOUT	The number of seconds after which a chat is terminated if there's no activity. The default value is 600. You can set this to a minimum value of 300. If you set the value to 0, a chat is never terminated even if there's no activity.
SVC_CHAT_WAIT_TIME_ENABLED	Enables displaying of the estimated wait time for a customer before an agent is expected to accept the chat request. The default value is Yes.
SVC_CHAT_ANONYMOUS_ACCESS_ENABLED	Enables anonymous access to chat for your customers. The default value is No.
SVC_CHAT_INLAYS_ACCESS_ENABLED	Enables access to the chat inlays to get the bootstrap configurations. The default value is No.
SVC_MCA_ENABLE_ENGAGEMENT_SYNC	Enables synchronization of all engagements between your service application and Live Window, regardless of channel.
SVC_CHAT_CKEDITOR_ENABLED	Enables style formatting options in the Live Window chat panel.
SVC_CHAT_COBROWSE_ENABLED	Enables agents to request for a cobrowse session with a customer from the Live Window chat panel.
SVC_CHAT_TRANSCRIPT_PURGE_ENABLED	Enables purging of chat transcripts.
SVC_CHAT_TRANSCRIPT_PURGE_INTERVAL	Specifies the number of days after which the chat transcripts are deleted or purged. If the value is set to 0, then the transcripts aren't deleted.

Profile Option	Description
SVC_CHAT_TRANSCRIPT_DELETE_ENABLED	Enables the <b>Delete</b> button in the chat transcript window.
SVC_CHAT_TRANSCRIPT_PURGE_ITERATION_INTERVAL	Specifies the number of minutes between each iteration. The default value is 5 minutes.
SVC_CHAT_TRANSCRIPT_PURGE_BATCH_SIZE	Specifies the number of chat transcripts to be deleted in one iteration. The default value is 50 transcripts. This default value is ideal because trying to delete a very large number of chat transcripts at a time is very expensive and not reliable.
ORA_SVC_MCA_SMARTTEXT_IN_LW_ENABLED	Enables the ability for chat agents to insert SmartText entries into chats.
SVC_CHAT_INLAYS_ACCESS_ENABLED	If your implementation includes ODA integration, make sure this profile option is enabled.

**Note:** Agents working in the chat channel must have the ORA\_SVC\_CHAT\_AGENT\_ABSTRACT job role to use chat.

If you're using custom roles, you must include the following privileges in the custom role:

Privilege Name	Privilege Code	Description	Inherited from Role Name	Inherited from Role Code
Edit Service Request	SVC_EDIT_SR_PRIV	Allows editing of a service request.	Service Request Troubleshooter	ORA_SVC_SR_TROUBLESHOOTER
Manage Omnichannel Presence and Availability	SVC_MANAGE_OMNICHANNEL_PRESENCE_AND_AVAILABILITY_PRIV	Allows management of the omnichannel availability for new work, presence menu and indicator.	Service Request Troubleshooter	ORA_SVC_SR_TROUBLESHOOTER_HCM
Update Sales Party Contact	ZCM_UPDATE_SALES_PARTY_CONTACT_PRIV	Allows updating the sales party contacts.	Service Sales Party Management	ORA_ZCM_SR_SALES_PARTY_MANAGEMENT
Access Partner Media Toolbar	SVC_ACCESS_PARTNER_MEDIA_TOOLBAR_PRIV	Allows access to the partner media toolbar.	Service Request Troubleshooter	ORA_SVC_SR_TROUBLESHOOTER

**Note:** If you're using custom roles, you must also include the data security policy "Service Interaction Header." For more information about creating the Data Security Policy, refer to [How do I define data security policies for custom roles?](#)

To configure the chat profile options:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Chat Profile Options
2. From the profile options listed on the Manage Chat Profile Options page, click a profile option.
3. In the **Profile Values** region, in the **Profile Level** drop-down list, ensure that **Site** is selected.
4. Select **Yes** from the **Profile Value** drop-down list.

**Note:** For the following profile options, specify a value in seconds in the **Profile Value** field as explained in the table:

- o SVC\_CHAT\_OFFER\_NOTIFICATION\_TIMEOUT\_VALUE
- o SVC\_CHAT\_TRANSCRIPT\_PURGE\_INTERVAL
- o SVC\_CHAT\_TRANSCRIPT\_PURGE\_ITERATION\_INTERVAL
- o SVC\_CHAT\_TRANSCRIPT\_PURGE\_BATCH\_SIZE

5. Click **Save**.
6. Repeat the previous four steps for all the listed profile options.

## How You Enable Chat

To enable the service representatives to use the chat function and to receive chat notifications, you must enable Omnichannel and desktop notifications. For more information about enabling Omnichannel and desktop notifications, see "Enable Omnichannel".

The chat function enables a customer to connect with a service representative. The customer initiates the chat from the Digital Customer Service, and a notification is sent to the available representatives in their service application.

**Note:** Agents working in the chat channel must have the ORA\_SVC\_CHAT\_AGENT\_ABSTRACT job role to use chat. If you're using the Digital Customer Service application as your consumer application, ensure that a user exists with the role ORA\_SVC\_CUSTOMER\_SELF\_SERVICE\_USER\_ABSTRACT and the privilege SVC\_REQUEST\_FOR\_CHAT. For more information about the security roles, see "Digital Customer Service Roles".

### Related Topics

- [How can I automatically route work assignments to agents?](#)
- [Digital Customer Service Roles](#)

## Configure Chat Wrap Up

You wrap up a chat, collecting all relevant information from an interaction, in the Chat Wrap Up window. You access past wrap up records in the Interaction History view.

If a service request, contact, or account is associated to a chat interaction, the wrap up, along with a link to the chat transcript, is written to the record. This doesn't happen unless wrap up is enabled. Chat wrap up is enabled by default.

An agent workflow for a chat interaction includes the option to display a wrap up dialog box at the close of an interaction. The workflow captures the full chat transcript between the agent and consumer and associates it with the interaction wrap-up record.

**Note:** The chat transcript is linked to an SR only when the contact in the chat interaction is associated with an account, and they're the primary contact on the SR. When a chat is initiated for a contact that doesn't have an account linked to it, the chat transcript is linked to the contact, but not to the SR. For more information, see [Overview of Cross-Channel Interactions](#).

You can view details of the chat transcript at any time in the future from the Interaction History tab or within an account, contact and service request record by drilling down into the associated wrap-up record available on the chat interaction. If the chat transcript has been disabled, here's how to enable it.

1. As an Administrator, go into Setup and Maintenance.
2. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Configure Call Flow Parameters
3. Click the **Wrap Up** drop down list and select **Yes**. This is the default value for this setting.

For more information on other call flow parameters, see [Related Links](#) for the [Configure Call Flow Parameter](#) topic.

After the chat exchange is finished, the agent closes the chat within Live Window and then enters the associated interaction includes wrap-up details and the transcript.

## Overview of Extending the Wrap Up UI

1. Open the Oracle Cloud Application page containing the component you want to extend.
2. Click the **Settings and Actions** menu and select **Edit Page in Visual Builder** to open the page in the **VB Studio Page Designer**.
3. Create a project or Open project with base application as: **Oracle CX Service UI Extension APP**.
4. Click the **Layouts** sub tab, then from the Dependencies list click **WrapUps**.
5. In the Dynamic Form list, select the **Wrapup dynamic layout**.
6. In the **Rule Set** field, click the **Parameters** tab.
7. The Wrapup component has the following three contexts:
  - o appClassification
  - o callDirection
  - o channelType
8. Mouse hover each context to highlight it, then hover of the ? symbol to view possible values for each component context:

- o appClassification: Possible Values: ORA\_SALES, ORA\_SERVICE, ORA\_HRHD
  - o callDirection: Possible Values: ORA\_SVC\_INBOUND, ORA\_SVC\_OUTBOUND
  - o channelType: Possible Values: ORA\_SVC\_PHONE, ORA\_SVC\_CHAT
9. In the **Display Logic** area, click the **Duplicate Rule** icon to clone the default rule.
  10. Enter a name for the duplicate rule then click the **Duplicate** button to create a copy of rule and layout.
    - Note:** Default layouts from dependencies are read-only, you can't edit them.
  11. In the the newly copied layout, select **Click to add condition** to add conditions for when to use this rule and layout.
  12. You can add conditions based on the following:
    - o Context
    - o Fields
    - o Responsive
    - o User
  13. You can give multiple conditions, or you can add multiple rules based on your requirement.
  14. Now we'll create rules, so go to the Layouts area, click the **+ Rule** button. For more information on create a rule, refer to [Create a Rule in a Rule Set](#).

## Further Extending You Can Do

For further information on extending the application, refer to these topics:

- To add additional fields to the layout, see [How do I add, hide, or rearrange fields?](#)
- To delete a field, hover over the field, and click the Delete button. <insert graphic>
- To mark a field as mandatory, click the the Required checkbox in the properties for the given field. <insert graphic>
- To make fields conditionally required or read only, see [How do I make a field read only or required?](#)

### Related Topics

- [Overview of Cross-Channel Interactions](#)

## Enable Deletion of Chat Transcripts to Comply with General Data Protection Regulation (GDPR)

Customers in the European Union (EU) can request the deletion of their chat transcripts under General Data Protection Regulation (GDPR) regulations.

The GDPR is a regulation in EU law. This law governs data protection and privacy for all individual citizens of the EU and the European Economic Area (EEA). One of the GDPR regulations is the right to erasure or the right to be forgotten. This means that your customer may want to request the deletion of all chat conversations for various reasons related to data protection and privacy. You can configure chat in your service application to purge the chat transcripts, either periodically by setting profile options or manually upon your customer's request.

Here's what you must do to enable purging of chat transcripts:

- The `SVC_DELETE_CHAT_TRANSCRIPT_PRIV` privilege lets users manually delete chat transcripts from the user interface. By default, this permission is given only to the Customer Service Administrator role. To permit other users or roles to delete chat transcripts, you must add this privilege to the respective roles.
- To automatically delete chat transcripts periodically, you must also set the following profile options:
  - `SVC_CHAT_TRANSCRIPT_PURGE_ENABLED`
  - `SVC_CHAT_TRANSCRIPT_PURGE_INTERVAL`
  - `SVC_CHAT_TRANSCRIPT_DELETE_ENABLED`
  - `SVC_CHAT_TRANSCRIPT_PURGE_ITERATION_INTERVAL`
  - `SVC_CHAT_TRANSCRIPT_PURGE_BATCH_SIZE`

**Note:** For more information about how to set the profile options, see "Configure Chat Profile Options".

**Note:** For more information about how to delete chat transcripts manually, see "Delete Chat Transcripts to Comply with General Data Protection Regulation (GDPR)".

#### Related Topics

- [How do I configure chat profile options?](#)
- [Delete Chat Transcripts to Comply with General Data Protection Regulation \(GDPR\)](#)

## Use Oracle Digital Assistant as an Agent

You can enable Oracle Digital Assistant (ODA) for use as a chat bot in your Service implementation. If you do enable ODA, it's highly recommended that you do so using Service Center with the Redwood User Experience as that implementation includes more features that you can use. For more information refer to the Set Up Digital Assistant as a Chat Bot chapter in *Implementing Service Center with the Redwood User Experience*

Setting up ODA as an agent allows your human agents to serve customers in real time through typed conversation, while ODA configured as a chat bot can participate in live chats with customers much in the same what human agents do, allowing those human agents to handle more complicated issues.

In cases where the digital assistant can't assist the customer, it can transfer the conversation to a live agent. This automated agent will be available 24 hours a day, 7 days a week, even when all human agents are busy.

You may have already found that your agents spend the bulk of their time on tasks that an automated agent can easily handle, such as answering a frequently-asked question or tracking a package. To minimize the number of chats that your agents must handle, and to reduce customer wait times, consider first routing your chat sessions to a digital assistant. The digital assistant can deal with the easy tasks, and, for the more complex ones, gather essential details before transferring the chat session to a human agent. Your agents will thus provide more value to your company by only spending their time where they can add the most value.

Here's an overview of the steps required to set up ODA for this functionality:

- Enable Chat
- Configure the chat server in Identity Cloud Service (IDCS).

- Create your agents and queues.
- Extend the Universal Work object for assignments
- Create a channel service application and resource in IDCS
- Set up Digital Assistant as an agent channel in ODA.
- Create an authentication service in ODA
- Create ODA skills
- Set up your business rules.

## Computer Telephony Integration (CTI)

### What is Computer Telephony Integration (CTI)?

Computer telephony integration (CTI) enables integration of third party media toolbars with Fusion Sales and Fusion Service. You can display a media toolbar by enabling the Partner CTI Service, and by giving your signed-in users the Access Partner Media Toolbar privilege which allows access to the toolbar.

Use CTI to:

- Make an outbound call using Click to Dial and skip manual dialing.
- Receive phone calls.

Integrating with CTI gives you the following features:

- Notifications of incoming calls and ability to accept or reject the call
- Automatic caller identification
- Ability to search for a contact
- Optional caller verification
- Display of administrator-defined screen pop with caller or service details
- Automatic interaction recording
- Optional call wrap up

You can build this integration using the provided MCA Media Toolbar APIs or you can engage with one of Oracle's telephony partners. To connect with telephony partners, go to [Oracle Cloud Marketplace](#) and search for any one of the following:

- OpenMethods PopFlow
- OpenMethods Harmony (choose Harmony for B2B Service)
- Five9 (Cloud Contact Center for Oracle B2B Service)

## Configure Profile Options to Enable Partner Media Toolbar

The profile option `SVC_PARTNER_MEDIA_TOOLBAR_ENABLED` controls the visibility of the partner media toolbar. If you don't enable the profile option, the partner media toolbar is hidden. You can set this profile option either at a site level or at a user level.

To configure the profile options for enabling the partner media toolbar:

1. Navigate to the Setup and Maintenance work area and open the Tasks panel tab.
2. Click **Search** from the list of displayed tasks.
3. In the **Search** field, type `Manage Admin.`
4. From the displayed list of tasks, click **Manage Administrator Profile Values**.
5. In the Manage Administrator Profile Values page, navigate to the Search: Profile Option region.
6. In the Profile Option Code field, type `SVC_PARTNER_MEDIA_TOOLBAR_ENABLED`.
7. Click **Search**.

The Search Results: Profile Options region displays the list of profile options.

8. In the Profile Values region, specify the values in the **Profile Value** column for the **Site Profile Level** to 'Yes' if you want the partner media toolbar to be visible to all users.
9. Alternatively, set the Site level value to 'No' and add a new row for a user for whom the partner media toolbar must be visible.
10. Click **Save and Close**.

**Note:** Ensure that the user is assigned the privilege `Access Partner Media Toolbar` (`SVC_ACCESS_PARTNER_MEDIA_TOOLBAR_PRIV`) before trying to access the toolbar.

## Configure Multichannel Architecture (MCA) Profile Options

Profile options let you configure and control application data centrally. Use the Multichannel Architecture (MCA) profile options to manage the MCA run time profile option values. Administrators and setup users manage MCA profile options in the Setup and Maintenance work area.

To configure the MCA Profile Options:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage MCA Profile Options
2. Click the name of the profile option you want to set.

This displays the **Manage MCA Profile Options** page for the selected profile option code.

3. In the Profile Values section for the profile option code, set the **Profile Value** for the Site **Profile Level**.
4. In the selected profile value, click the **New** icon to add a profile value.
5. Click **Save** or **Save and Close** to save the configuration.

## MCA Profile Options

The following table lists the various MCA profile options that you can configure:

Profile Option	Description
SVC_MCA_DISABLE_JWT	Enables or disables the JSON Web Token generation.
SVC_MCA_DISABLE_OUTBOUND_CONTACT_VERIFY	Enables or Disables automatic display of contact verification screen for outbound calls. If enabled, it will override the call flow parameter configurations.
SVC_MCA_DISABLE_OUTBOUND_WRAP_UP	Enables or disables automatic display of the wrap-up screen for outbound calls. If enabled, it will override the call flow parameter configurations for wrap up.  <b>Note:</b> For Digital Sales implementations, this setting must be enabled.
SVC_MCA_ENABLE_ENGAGEMENT_SYNC	Controls the in-focus chat interactions to be automatically associated to their screen popped tabs.
SVC_MCA_RECORD_ACTIVITIES_YN	Indicates whether activities must be logged for real time interactions.  <b>Note:</b> For Digital Sales implementations, this setting must always be disabled (set to No).
SVC_MCA_RT_CHECK_EVENT_DISPATCH_INTERNAL_MS	Sets the number of milliseconds the user must wait for the start communication event. We recommend that you don't modify this value unless instructed by Oracle Support.
SVC_MCA_RT_EVENT_DISPATCH_MAX_RETRIES	Sets the number of times the user must wait for reverse lookup to return before running the start communication event. We recommend that you don't modify this value unless instructed by Oracle Support.
SVC_MCA_SHOW_CONTACT_ON_WRAP_UP	Indicates whether to show the contact information during the wrap up process.
SVC_OVERRIDE_PARTNER_TOOLBAR_SELECTION	This option allows user to override system default setting of the partner media toolbar. User can select alternative toolbars from the list of active toolbars.
SVC_OVERRIDE_PARTNER_TOOLBAR_SELECTION	Enables the administrator to override the default setting of the partner media toolbar. The administrator can select alternative toolbars from the list of active toolbars.
SVC_PARTNER_MEDIA_TOOLBAR_ENABLED	Controls the visibility of the partner media toolbar. If it's not enabled, the partner media toolbar is hidden.
SVC_TOOLBAR_DEBUG_MODE_ENABLED	Turns on the JavaScript logging messages for debugging toolbar-related issues.

### Related Topics

- [Enter or Edit Translated Text](#)
- [Set Profile Option Values](#)

## Import and Export Data in CSV Format

This topic describes how to import and export data from and into .CSV format files.

To import and export data::

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
2. Go to the relevant task, and click the **Actions** menu next to it. The tasks that you can perform are:
  - o Configure Call Flow Parameters
  - o Manage Application Classifications
  - o Manage Media Toolbar Configuration
  - o Manage Screen Pop Configuration
3. Click **Export Data > Create New** to export the data in a .CSV file format.
4. Click **Export Data > View All** to view all the exported .CSV files.
5. Click **Import Data > Create New** to import the data in a .CSV file format.
6. Click **Import Data > View All** to view all the imported .CSV files.

### Related Topics

- [How do I configure screen pop pages?](#)
- [How You Configure the Media Toolbar](#)
- [What is Computer Telephony Integration \(CTI\)?](#)
- [How do I update existing setup data?](#)

## How You Configure the Media Toolbar

An administrator can configure both the horizontal toolbar and vertical media toolbar. Live Window is an alternative to the media toolbar. For more information about the live window, see the Configure Live Window and Companion Tab for CTI topic in the Related Topics list.

- If the company has enabled partner Computer Telephony Integration (CTI) service.
- When the signed-in user has the access privileges to a toolbar.

An administrator can configure multiple media toolbars, and specify a default.

The default toolbar gets assigned to all users.

**Tip:** Set the toolbar with the greater number of users as the default toolbar.

An administrator can also set other users to the non-default toolbar, or alternatively the agents can do this themselves.

An administrator can set the alternative toolbar for users by using the `SVC_OVERRIDE_PARTNER_TOOLBAR_SELECTION` profile option and creating a user row with the alternative toolbar for each user.

Agents can set an alternative toolbar by doing the following:

1. Click the **Settings and Actions** menu, and select **Set Preferences**.
2. Click **Media Toolbar**, and then click the **Override Media Toolbar** drop-down list and select the alternative toolbar.
3. Click **Save and Close**, then log out and log back in.

While configuring the toolbars, you can also configure incoming call notification window. The notification window displays basic details about the incoming call.

#### Related Topics

- [Configure Screen Pop Pages](#)
- [What is Computer Telephony Integration \(CTI\)?](#)
- [Configure Business Objects](#)
- [How do I configure screen pop pages?](#)
- [Configure Live Window and Companion Tab for CTI](#)

## Configure the Media Toolbar

To configure the media toolbar, do the following:

1. In the Setup and Maintenance work area, click the **Tasks** icon.
2. Select **Search**.
3. Search for the following string:

`Manage Media Toolbar Configuration`

4. Click the **Manage Media Toolbar Configuration** link.

This displays the **Manage Media Toolbar Configuration** page

5. Click the **Add New** icon to add a toolbar.
6. Enter a toolbar name.
7. From the **Status** options, select **Enabled** to make the toolbar active. If a default toolbar is already specified, this field is disabled by default.
8. Select the layout as Redwood. The layout is selected as Embedded (Horizontal) by default.
9. Enter the domain name. This configuration entry will help you in URL redirection. If you enter the domain name in the Domain Name field, then the application allows cross-origin requests from hosts within the same primary domain or any sub-domain. For example, if you have set the Domain Name to `provider.com`, then requests from the following URLs are allowed:

Configured URL: `https://generaltoolbar.provider.com/toolbar.html` to Redirected URL: `https://customerspecifictoolbar.provider.com/toolbarForCustomerX.html`.

10. Select the newly added toolbar from the list of toolbars and click **Default** to set the toolbar as the default one for all enabled users.
11. Click **Save**, and then **Save and Close**.

### Related Topics

- [Configure Screen Pop Pages](#)
- [What is Computer Telephony Integration \(CTI\)?](#)
- [Configure Business Objects](#)
- [How do I configure screen pop pages?](#)

## Overview of Live Window and Companion Tab

Live Window is a user interface in a dedicated window that assists agents in handling interactions with customers using telephony and real-time web channels including Chat, and Live Video.

When enabled, you can open Live Window through a dedicated icon in the Omnichannel Headset availability group icon. The media toolbar is an alternative to Live Window. For more information about the media toolbar, see the "Configuring the Media Toolbar: Procedure".

Live Window opens in a separate browser window, which enables agents the flexibility of sizing and placement of the window, based on their environment and needs. Third-party telephony partners have the ability to embed their control toolbars into the Live Window: this enables agents to use all of the control functionality from the telephony partners, such as accept, reject, and transfer phone communications.

The Companion Tab is a screen that appears on the Live Window. The tab provides additional screen real estate, enabling you to embed value-added functionality as part of your phone controls. You can use the tab for features such as administrator dashboards or phone reports which provide additional value and flexibility in the engagement center.

Using the ease and flexibility of both the Live Window and Companion Tab, Omnichannel users can use this as a single location for their channel controls, resizing the Live Window if using a single monitor to fit neatly next to their CRM window. This enables easy movement between customer interactions with access to their CRM transactional information. For users that have two monitors, the Live Window can be moved to the second monitor providing additional real estate for the CRM window.

### Related Topics

- [How You Configure the Media Toolbar](#)

## Configure Live Window and Companion Tab for CTI

This topic describes how to configure Live Window and Companion Tab for CTI.

To configure Live Window and Companion Tab:

1. In the Setup and Maintenance work area, click the **Tasks** tab icon.
2. Select **Search**.
3. Search for the following string:

`Manage Media Toolbar Configuration`

This displays the **Manage Media Toolbar Configuration** page.

4. Click the Add New icon to add a toolbar.

5. Enter a toolbar name.
6. Select **Enabled** to make the toolbar active. If a default toolbar is already specified, the new toolbar you're creating is **Disabled** by default.
7. The Layout is selected as **Embedded (Horizontal)** by default. Select **Live Window (Vertical)**.
8. Enter the domain name. This configuration entry will help you in URL redirection. If you enter the domain name in the Domain Name field, then the application allows cross-origin requests from hosts within the same primary domain or any sub-domain. For example, if you have set the Domain Name to provider.com, then requests from the following URLs are allowed:  
  
Configured URL: `https://generaltoolbar.provider.com/toolbar.html` to Redirected URL: `https://customerspecifictoolbar.provider.com/toolbarForCustomerX.html`.
9. Specify the communication panel URL in the **Communication Panel URL** text box.  
  
**Note:** This URL is derived from the third-party telephony partner application that you have installed to integrate the toolbar.
10. Enter the label in the **Communication Panel** field.
11. Select **Yes** in the **Companion Tab** field to display the companion Tab in the Live Window.
12. Enter the **Label** to appear on the Companion Tab.
13. Enter an optional **Communication Tab Default URL** that was provided by your telephony partner. This content is displayed on initialization of the Live Window.
14. To enable Live Window notification, select **Enabled** for the **Live Window Notification** option.
15. (Optional) To make Live Window the default toolbar, select the check mark icon in the **Default** column of the **Live Window** row.
16. Click **Save** or **Save and Close**.

#### Related Topics

- [How You Configure the Media Toolbar](#)

## CTI Media Toolbars APIs

### Overview of the Media Toolbar API

Media toolbar APIs are a set of JavaScript functions delivered by Oracle to enable Computer Telephony Integration (CTI) partners to integrate their media toolbars with Oracle Fusion Service.

These APIs facilitate communication between the media toolbar and Oracle Fusion Service to exchange the following in response to inbound or outbound interaction requests:

- Configuration information
- Events
- Payload data

When enabled, Oracle Fusion Service loads the toolbar and the media toolbar APIs in an iFrame within the browser.

CTI partners can optionally use Live Window to load their media toolbar. Live Window is a user interface in a dedicated window that assists agents in handling interactions with customers using telephony and real-time web channels. For more information on Live Window, see the topic, "Overview of Live Window and Companion Tab".

### Related Topics

- [Overview of Live Window and Companion Tab](#)

## How You Load the Media Toolbar API

Find toolbar API modules under the `svcMca.tlb.api` namespace to enable quick and clear identification, and to avoid conflicts with similar JavaScript functions. To load the API JavaScript file, concatenate the following two parameters to the `iFrame` source toolbar URL:

- `oraParentFrame`: Represents the origin of the Oracle instance, including the protocol and the port. For example, `https://mypodinstance.oraclecloud.com:12345`.
- `oraApiSource`: Represents the path from where the toolbar API JavaScript file can be loaded, including the leading slash. For example, `/service/js/mcaInteractionV1.js`.
- `oraTbStyle`: Indicates whether the toolbar is displayed on a Live Window. `oraTbStyle=LiveWindow` indicates the Toolbar is Displayed in the Live Window, otherwise the value is set to `Embedded` to indicate the display is on the Applications page.

Here's an example to load the MCA Javascript dynamically:

```
<script type="text/javascript"
id="dynamicLoadScript">
(function() {
window.dynamicLoadCompleted = false;
window.staticLoadCompleted = false;
console.log("##DLS: Running DynamicLoadScript to load the Oracle API
JS...");
function getParameterByName(name) {
var match = RegExp('[?&]' + name +
'=([^\&]*)').exec(window.location.search);
return match && decodeURIComponent(match[1].replace(/\+/g, ' '));
}
var oraApiPath = '';
var oraOrigin = getParameterByName('oraParentFrame');
var oraApiSource = getParameterByName('oraApiSource');
console.log('##DLS: PageParameters - oraParentFrame: '+oraOrigin+'
oraApiSource: '+oraApiSource);
try {
if (oraApiSource && oraApiSource.startsWith("http")) {
oraApiPath = oraApiSource; //handle case where apiSource is loaded
from external CDN
} else {
oraApiPath = oraOrigin+oraApiSource;
}
console.log('##DLS: Oracle API JS URL: '+oraApiPath);
} catch (e) {
console.log('##DLS: Error '+e);
console.error(e);
}
function onDynamicLoadComplete() {
/* TODO INSERT ANY INIT PROCESSING HERE */
}
if (typeof define === 'function' && define.amd) {
try {
require([oraApiPath], function (mcaTlb) {
window['svcMca'] = {};
window.svcMca['tlb'] = mcaTlb;
```

```
window.dynamicLoadCompleted = true;
console.log('##DLS: Successfully loaded Oracle API JS');
onDynamicLoadComplete();
});
} catch (e) {
console.log('##DLS: Error loading ORACLE API JS from URL:
'+oraApiPath);
console.error(e);
}
} else {
var currentNode = document.getElementById('dynamicLoadScript');
var node = document.createElement('script');
node.type = 'text/javascript';
node.charset = 'utf-8';
node.async = true;
node.src = oraApiPath;
node.addEventListener('load', function(evt) {
window.dynamicLoadCompleted = true;
console.log('##DLS: Successfully loaded Oracle API JS');
onDynamicLoadComplete();
}, false);
node.addEventListener('error', function(evt) {
console.log('##DLS: Error loading ORACLE API JS from URL:
'+node.src);
}, false);
currentNode.parentNode.insertBefore(node, currentNode.nextSibling);
}
})();
</script>
```

## Media Toolbar API Methods

Media toolbar APIs are divided into these methods:

- Configuration methods: Enable the toolbar and the application to exchange configuration information, and saves changes in application for retrieval by the toolbar when needed.
- Interaction methods: Provide notification on the events occurring on the toolbar, as well as exchange information used by the toolbar or Fusion Service.
- Toolbar windows management methods: Manage the toolbar windows and facilitate communication between windows.
- Event listeners: Allow the toolbar to register listeners for events triggered by Fusion Service.

The APIs provide a non-blocking interaction between the toolbar and Fusion Service. Each method has a callback function parameter that's invoked when a method on Fusion Service is complete, notifying the toolbar of the outcome.

## What are the Media Toolbar APIs?

Use the media toolbar APIs with all toolbars that handle communication between agents and customers. The toolbar loads the APIs which are implemented in a JavaScript file format.

**Note:** Although media toolbar APIs are generic to all media channels, the 11.13.0.0 release supports only Phone and integration with CTI partner systems.

## API Classification

The media toolbar APIs facilitate the initial configuration of the loaded toolbar. Use them to set up functionality for both the partner toolbar and Oracle Fusion Service. There are three main flows of the toolbar interaction:

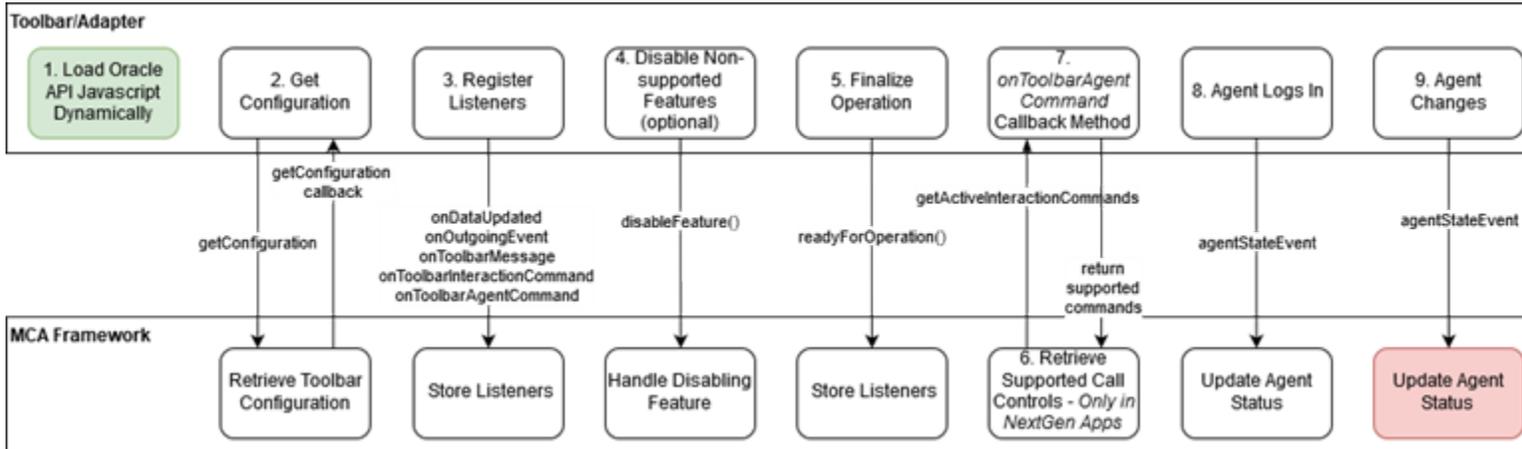
- Initial configuration of the partner toolbar and communication with Oracle Fusion Service.
- Inbound communication handling.
- Outbound communication handling.

The APIs are independent of communication channels, but use channel information as a parameter, passing it to Oracle Fusion Service to determine whether a toolbar supports multiple channels. You define and configure the channels using Functional Setup Manager. The APIs support both preconfigured and user-defined channels.

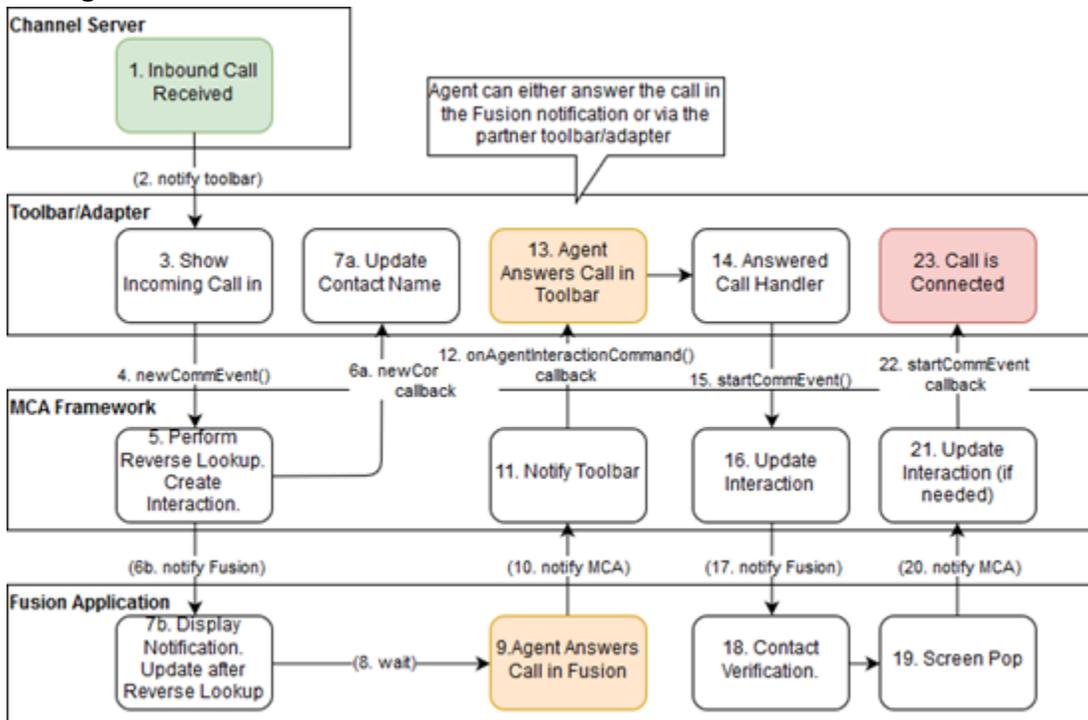
## Data Flow Methods

The following figures show the flow of the methods that are called by the toolbar. The method calls can be mandatory or optional. If a call is mandatory, the toolbar implementation must make one call for each communication event, unless you specify otherwise. If a call is optional, the toolbar implementation can make a call whenever necessary, depending on the action needs.

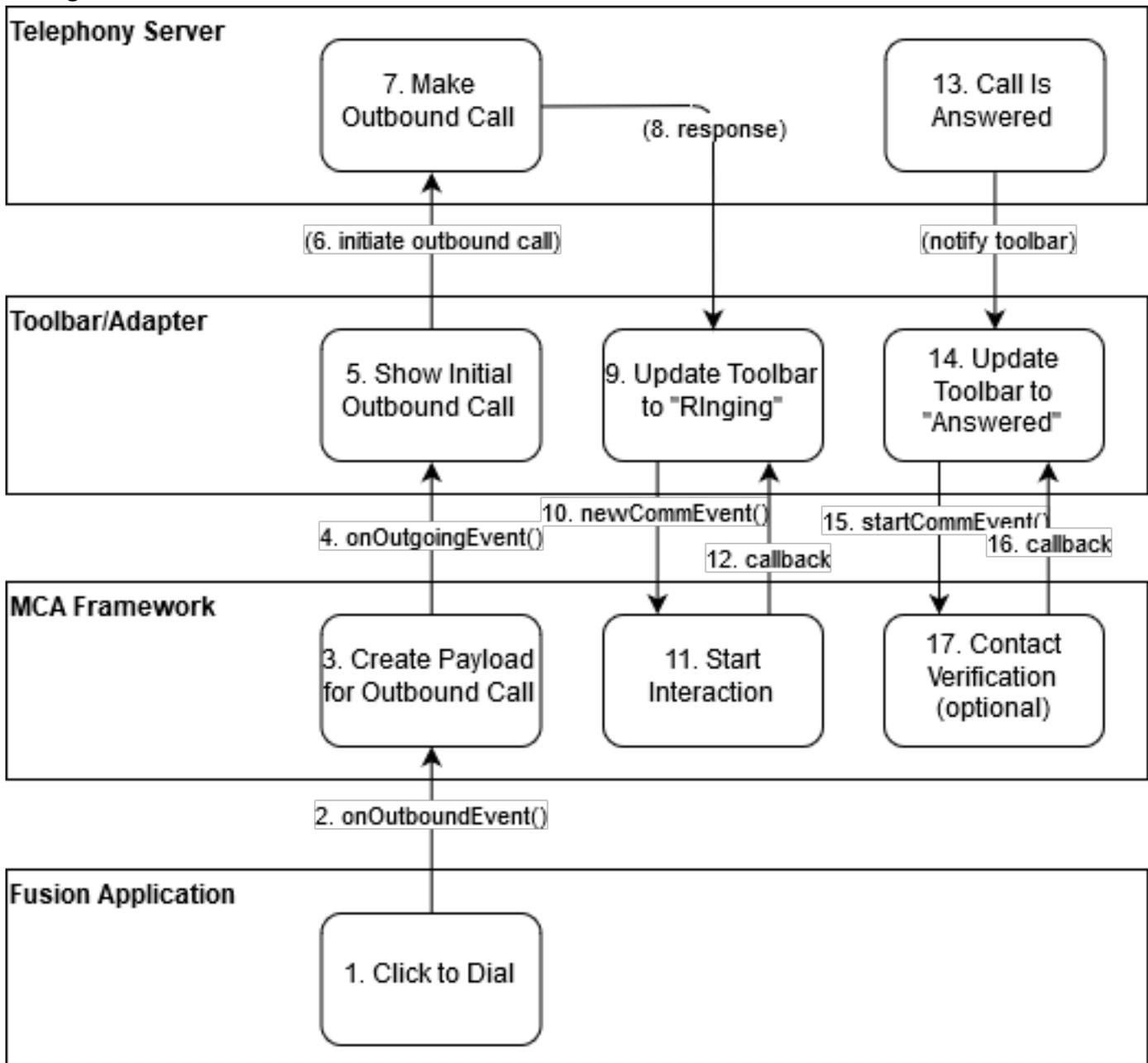
The following figure shows the configuration workflow.



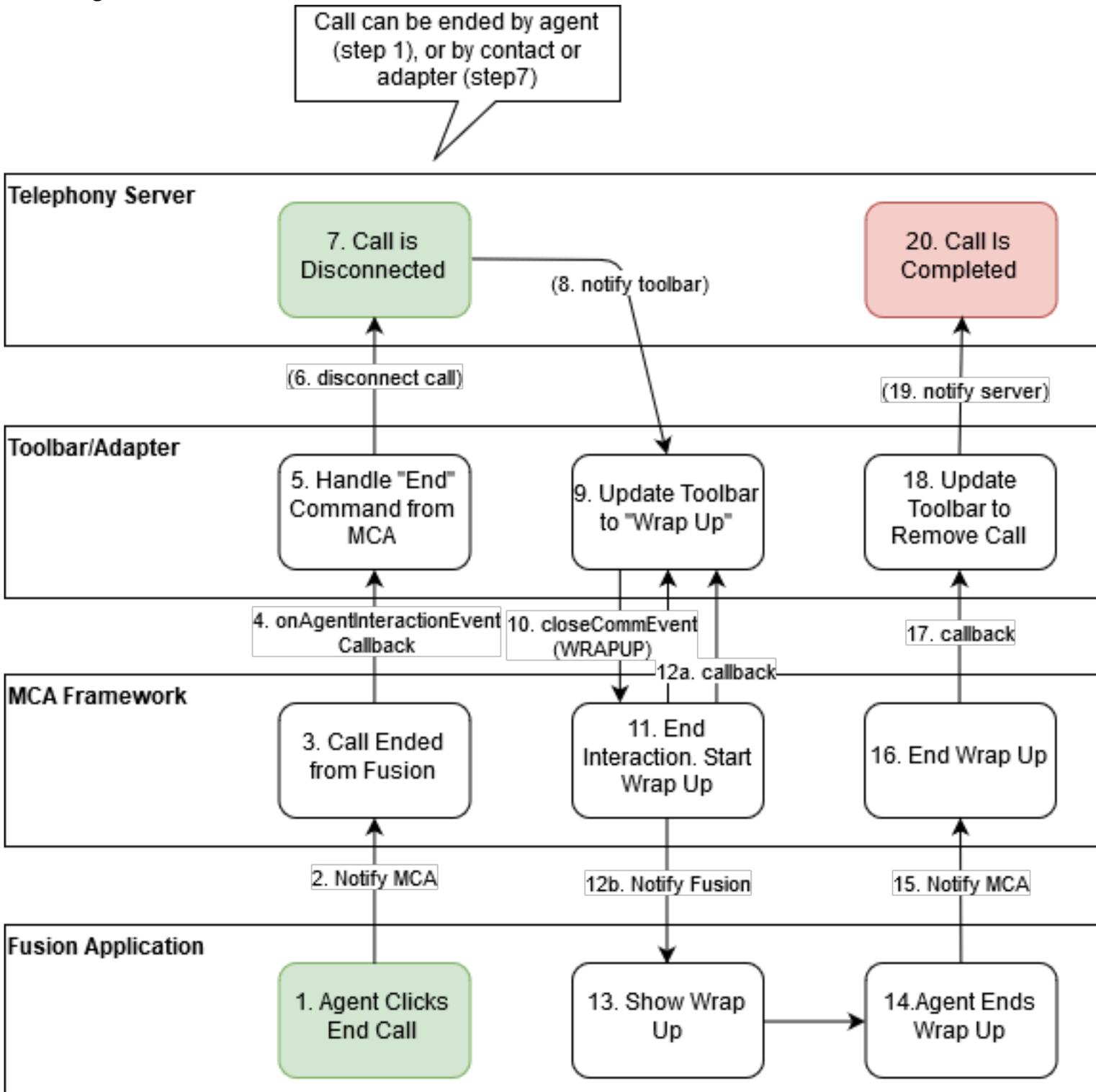
This figure shows the inbound call workflow.



This figure shows the outbound call workflow.



And this figure shows the end of call workflow.



# Configuration APIs

## Overview of Configuration APIs

The configuration APIs enable the toolbar and Oracle Fusion Service to exchange configuration data. They're listed in the following table.

Method	Usage
getConfiguration	Sets up the toolbar. The method retrieves a list of features that are supported by Oracle Fusion Service.
disableFeature	Disables a feature that the toolbar doesn't support.
readyForOperation	Notifies Oracle Fusion Service that the toolbar is ready for use, and that the agent is logged on to the toolbar, and ready to handle communication.

## getConfiguration Method

Call this mandatory method to get configuration information that enables the toolbar to evaluate the features supported by Fusion Service. Based on the evaluation, the toolbar informs Fusion Service of any features that must be disabled. For more information, see the disableFeature API method.

Here's a list of the getConfiguration method parameters:

Parameter	Description
callback	Returns results to the caller toolbar, and retrieves configuration information in the form of a JSON formatted string.
configtype	The type of configuration information returned by Fusion Service. Possible values are TOOLBAR, TOKENS, PAGES, LOOKUP_OBJECTS, ALL, or FA_TOKEN. This is an optional parameter with a default value of TOOLBAR.

The return value is based on what the configType parameter passes. It includes the agent name along with the other information listed in the following table:

Parameter	Description
TOOLBAR	Returns a list of features supported by Fusion Service. It also returns information about the toolbar, such as whether it's enabled, and if so, its dimensions. These values are preconfigured, but you can set up and modify them using Functional Setup Manager.
TOKENS	Returns information about both system and user-defined tokens. You can set up and modify these values using Functional Setup Manager.
PAGES	Returns information about both system and user-defined screen pop pages, including code, name, parameters, and associated tokens. You can set up and modify these values using Functional Setup Manager.
LOOKUP_OBJECTS	Returns information about business objects that are used to perform reverse lookup. Returns information about both system and user-defined screen pop pages, including code, name, parameters, and associated tokens. You can set up and modify these values using Functional Setup Manager.
ALL	Returns all of information as the other configType values, except that of <b>FA_TOKEN</b> type.
FA_TOKEN	Returns a JWT token to be used by toolbar implementation to authenticate against Fusion Service when calling the REST APIs. A specific call to this configType is required to obtain the JWT token.

Here's sample code to call the `getConfiguration` method

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function callGetConfiguration() {
  svcMca.tlb.api.getConfiguration(function (response) {
    if (response.result == 'success') {
      alert('Success! Configuration is: ' + response.configuration);
    } else {
      alert('Operation finished with error: ' + response.error);
    }
  });
}</script>
</head>
<body>
<input type="button" value="Configuration" onclick="callGetConfiguration()"/>
</body>
</html>
```

Here's a sample response for configuration data with configType `LOOKUP_OBJECTS`

```
{
  "lookupObjects": [
    {"name": "ServiceRequest"},
    {"name": "Account"},
    {"name": "Contact"}
  ]
}
```

Here's a sample response for configuration data with configType `FA_TOKEN`

```
{
```

```

" faTrustToken":
"eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsIng1dCI6Im9ZcTdYODhqNXZwYwd3R2t2UGpMWjgxcloxdyJ9eyJleHAiOjE0MDg1NDAxMDIyNjEsImFu-i8vFx_XXx9E3iI915L_VD1Vkh96CLQPRYa5kW-ruLYeDOhhQL4M7ke8vPMArEp5rPoEOhJXnXYKKTJpCmE5RqJ_Zx00nPxJTY"
}
    
```

## disableFeature Method

This method informs Fusion Service that a subset of available functionality must be disabled because the toolbar hasn't implemented it.

By default, the features sent by the getConfiguration API method are considered enabled. There's no return value with this method. The method parameters are described in the following table.

Parameter	Description
features	A string that contains the comma-separated feature names. For a list of features, see <i>API Features</i> .
callback	A method callback which returns results to the toolbar.

Here's sample code used to call the method:

```

<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function disableOutgoingCall() {
svcMca.tlb.api.disableFeature('OUTBOUND_CALL', function (response) {
if (response.result == 'success') {
alert('Success! Feature disabled!');
} else {
alert('Operation finished with error: ' + response.error);
}
});
}</script>
</head>
<body>
<input type="button" value="Disable outgoing call" onclick="disableOutgoingCall()"/>
</body>
</html>
    
```

## readyForOperation Method

This method notifies Fusion Service that the toolbar is ready for operation. A minimum of one call to this method is mandatory. The toolbar is disabled by default, and is enabled when this method is called with the readiness parameter set to TRUE.

Parameter	Description
readiness	Boolean value that specifies whether the toolbar is ready to operate.
callback	Callback which informs the toolbar that Fusion Service has received the readiness status message.

Here's sample code to call the `readyForOperation` method

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function setReady() {
svcMca.tlb.api.readyForOperation(true, function (response) {
if (response.result == 'success') {
alert('Success!');
} else {
alert('Operation finished with error: ' + response.error);
}
});
}</script>
</head>
<body>
<input type="button" value="Get state" onclick="getDisplayState()" />
</body>
</html>
```

#### Related Topics

- [API Features](#)

## Interaction APIs

### Overview of Interaction APIs

Interaction API facilitate communication between the toolbar and Oracle Fusion Service during an interaction.

The API triggers customer identification by using reverse lookup, screen pop and user-defined tokens. All methods of the interaction API have a channel for which they make the call as a parameter. You configure the channels with Functional Setup Manager. For a list of provided channel names, see Channel Type Data. The following table lists the Interaction API methods.

Method	Usage
<code>newCommEvent</code>	Notifies the application that the toolbar has received a new <code>CommEvent</code> . This means that new communication has been assigned to or was initiated by the current agent. This call is mandatory.
<code>startCommEvent</code>	Notifies the application that the toolbar has started a <code>CommEvent</code> , where an agent has accepted the event.

Method	Usage
closeCommEvent	Notifies the application that the toolbar has closed the CommEvent. This call is mandatory.
transferCommEvent	Called by the toolbar to inform the application that a transfer of the communication has been initiated.
upgradeCommEvent	Notifies the application that a new channel was added to an existing engagement. For instance, an agent is engaged with a customer and decides to start a video conference with the customer.
downgradeCommEvent	Notifies the application that a channel was removed from an existing engagement. For instance, an agent is engaged with a customer disconnects the video conference. Note that if a closeCommEvent is received for the initial or primary channel of communication it's assumed that any attached communications are disconnected as well.
getCustomerData	Retrieves customer or related data.

## newCommEvent Method

This method is called by the toolbar to inform Fusion Service that a new communication event has started.

This is the first API call that the toolbar makes for a communication event. This method must provide through the eventId parameter, either a unique identifier or the media event identifier to be used for the communication event. For both inbound and outbound calls, it's important to specify the direction of the interaction. The newCommEvent must contain the following inData token to indicate the direction of the call: "SVC\_MCA\_COMMUNICATION\_DIRECTION". Valid values are: "ORA\_SVC\_INBOUND" and "ORA\_SVC\_OUTBOUND". This method call is mandatory.

For inbound calls, the primary purpose of the call is to identify customers by using reverse lookup functionality and to trigger the incoming call notification. The toolbar uses tokens to pass all the information from the Interactive Voice Response systems. All customer information retrieved is sent back to the toolbar using system tokens.

Here's a list of the newCommEvent parameters.

Parameter	Description
channel	Name of the channel for which the method is called. For more information on what channels are available, see <i>Channel Type Data</i> .
appClassification	Name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there's no application classification. For a list of preconfigured values, see <i>Application Classification Code</i> .
eventId	A toolbar-generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with the internal interaction record.
inData	An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens.

Parameter	Description
	To specify a timeout value for an incoming call notification, add the following pair to this parameter: <code>SVC_MCA_OFFER_TIMEOUT_SEC, #OFSECOND</code>  Replace the <code>#OFSECONDS</code> value with the actual number of seconds where you want to start the timer. When the timer expires the <code>onDataUpdated()</code> method is invoked with the <code>updateType</code> parameter set to <code>OFFER_TIMEOUT</code> . The toolbar then invokes the <code>closeCommEvent()</code> method to end the interaction.
callback	Returns results to the caller toolbar.
lookupObject	A business object used to run the reverse lookup. Use this optional parameter to get customer information. The default value of Contact. For more information about the list of system lookup objects, see <i>System Business Objects</i> .
channelType	The type of channel for which the method is being called. Note that if, for example, the channel is PHONE but the <code>channelType</code> isn't provided, the default value is set to <code>ORA_SVC_PHONE</code> . For more information, see <i>Channel Type Data</i> .

Here's a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
outData	Represents an object containing possible identified data from Fusion Service for the contact or for the organization. This attribute contains the names of system tokens.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see <i>Error Messages</i> .

**Note:** The `newCommEvent` method triggers the creation of an interaction object. This object contains information related to communication, and objects that are related to communication. The identifier for the interaction is passed back with the callback response as the value for the `SVC_MCA_INTERACTION_ID` token. Subsequent invocations of the method must send this token and its value, along with other IVR data to Fusion Service.

When the `newCommEvent` method is invoked for a transfer, the toolbar uses the `SVC_MCA_PARENT_INTERACTION_ID` token to send IVR data and the originating communication interaction ID to Fusion Service which associates the communication events. In addition, you must also specify the `SVC_MCA_2NDARY_CALL_TYPE` token to indicate whether this call is a Transfer, a Consultation, or a Conference.

Here's an example of code used to call this method.

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function inboundCallNotification() {
  var inData = {};
  inData.SVC_MCA_ANI = '5551234';
```

```

inData.SVCMCA_CONTACT_ID = '1234567890';
svcMca.tlb.api.newCommEvent('PHONE', 'ORA_SERVICE', '12345-1234-67890', inData, null, function (response) {
if (response.result == 'success') {
console.log('Customer: '+response.outData.SVCMCA_CONTACT_NAME + ' ('+response.outData.SVCMCA_CONTACT_ID
+')');
console.log('Account: '+response.outData.SVCMCA_ORG_NAME + ' ('+response.outData.SVCMCA_ORG_ID +')');
alert('Success! Results available in log.');
```

## startCommEvent Method

The toolbar makes this mandatory method call when an agent accepts a new communication that was triggered by the `newCommEvent()` call.

This method invokes the Identify Contact flow, then triggers the Customer Validation flow, and then runs the screen pop which the following explains:

1. The method first triggers the Customer Validation flow.  
This flow queries the communication data to determine if a contact has already been identified. If not, the Contact Search window is displayed allowing the agent to search for or create a contact. Once found, the contact information is returned to the toolbar. Toolbars can bypass this flow by identifying the contact prior to the `startCommEvent` call or by passing the `SVCMCA_BYPASS_IDENTIFY_CONTACT`. Toolbars can then use the `getCustomerData()` method to manually request contact identification.
2. The method then triggers the Customer Verification flow, an optional flow that opens the customer verification page. If the agent doesn't verify the caller, no screen pop is performed. Customer verification can be bypassed by passing in the `SVCMCA_BYPASS_CUSTOMER_VERIFICATION` token in the call data.
3. Finally, the method runs a screen pop using your predefined rules. If you want the toolbar to prevent the screen pop, you can add the `SVCMCA_BYPASS_AUTO_SCREENPOP` token into the call data, and use the `invokeScreenPop()` method to manually trigger the pop.

**Note:** A callback passed with the `startCommEvent` method can be invoked multiple times if the Identify Contact and Customer Verification flows triggered. The `outData` information from the response can contain updated customer information.

Here's the method details:

Parameter	Description
channel	The name of the channel for which the method is called. For more information on what channels are available, see <i>Channel Type Data</i> .

Parameter	Description
appClassification	The name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there is no application classification. For a list of preconfigured values, see <i>Application Classification Code</i> .
eventId	The toolbar generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with internal interaction record.
inData	An object containing information about incoming events for customer identifiable data, as well as attributes containing the names of system or user-defined defined tokens.
callback	Returns results to the caller toolbar.
channelType	The type of channel for which the method is being called. Note that if, for example, the channel is PHONE but the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see <i>Channel Type Data</i> .

Here's the member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
outData	Represents an object containing possible identified data from Fusion Service for the contact or for the organization. This attribute contains the names of system tokens.
error	Contains the error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function startCommEvent() {
  var inData = {};
  inData.SVCMCA_ANI = '5551234';
  inData.SVCMCA_CONTACT_ID = '1234567890';
  inData.SVCMCA_CONTACT_NAME = 'John Smith';
  inData.createSr = 'yes';
  svcMca.tlb.api.startCommEvent('PHONE', 'ORA_SERVICE', '12345-1234-67890', inData, function (response) {
  if (response.result == 'success') {
    console.log('Created service request: '+response.SVCMCA_SR_NUMBER);
    alert('Success! Results available in log. ');
  } else {
    alert('Operation finished with error: ' + response.error);
  }
  }, 'ORA_SVC_PHONE');
}</script>
</head>
<body>
<input type="button" value="Call started" onclick="startCommEvent()"/>
```

```
</body>
</html>
```

## closeCommEvent

The toolbar calls this method when communication ends. The parameter reason is used to indicate how the communication ended and provide additional information. Value reason values are shown in the following list:

- **ABANDONED:** The communication attempt timed out.
- **ENDCOMMUNICATION:** Indicates that the communication ended and if Fusion Service is in wrap-up mode it then must close the wrap-up page.
- **MISSED:** The communication attempt couldn't be established for another reason.
- **REJECT:** When an agent rejects a communication.
- **TIMEOUT:** The communication attempt timed out.
- **WRAPUP:** Displays the Wrap Up window to indicate to the agent that the communication must come to a close.

Here's the parameters for this method:

Parameter	Description
channel	The name of the channel for which the method is called. For more information on what channels are available, see <i>Channel Type Data</i> .
appClassification	The name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there is no application classification. For a list of preconfigured values, see <i>Application Classification Code</i> .
eventId	Toolbar generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with internal interaction record.
inData	An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens.
reason	ABANDONED, ENDCOMMUNICATION, MISSED, REJECT, TIMEOUT, OR WRAPUP.
callback	Returns results to the caller toolbar.
channelType	The type of channel for which the method is being called. Note that if, for example, the channel is PHONE but the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see <i>Channel Type Data</i> .

Here's the member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.

Member Attribute	Description
outData	Represents an object containing possible identified data from Fusion Service for the contact or for the organization. This attribute contains the names of system tokens.
error	Contains the error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

Here's sample code for this method:

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function closeCommEvent() {
  var inData = {};
  inData.SVCMCA_ANI = '5551234';
  inData.SVCMCA_CONTACT_ID = '1234567890';
  inData.SVCMCA_CONTACT_NAME = 'John Smith';
  svcMca.tlb.api.closeCommEvent('PHONE', 'ORA_SERVICE', '12345-1234-67890', inData, 'WRAPUP', function
  (response) {
    if (response.result == 'success') {
      alert('Success! Call ended.');

```

## transferCommEvent Method

This method is called by the toolbar to inform Fusion Service that a transfer of the communication has been initiated. Fusion Service records the notification, but provides no response.

After a call is made to this method, the toolbar calls the closeCommEvent() method with the reason code of TRANSFERRED.

Here's the parameters for this method:

Parameter	Description
channel	The name of the channel for which the method is called.
appClassification	The name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there is no application classification. For a list of preconfigured values, see <i>Application Classification Code</i> .

Parameter	Description
eventId	A toolbar generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with internal interaction record.
inData	An object containing information about incoming events for customer identifiable data, as well as attributes containing the names of system or user-defined defined tokens.
callback	Returns results to the caller toolbar.
channelType	The type of channel for which the method is being called. Note that if, for example, the channel is PHONE but the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see <i>Channel Type Data</i> .

Here's the member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
error	Contains the error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

Here's sample code for this method:

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function transferCommEvent() {
var inData = {};
inData.SVCMCA_ANI = '5551234';
inData.SVCMCA_CONTACT_ID = '1234567890';
inData.SVCMCA_CONTACT_NAME = 'John Smith';
inData.transferredId = '5550987';
svcMca.tlb.api.transferCommEvent('PHONE', 'ORA_SERVICE', '12345-1234-67890', inData, function (response) {
if (response.result == 'success') {
alert('Success! Call transferred to other agent.');
```

## upgradeCommEvent

This method is called by the toolbar to inform Fusion Service that a new channel has been added to an existing engagement. For example, an agent is chatting with a customer and decides to start a video conference to clarify a concept.

Here's the upgradeCommEvent parameters.

Parameter	Description
channel	Name of the channel for which the method is called. For more information on what channels are available, see <i>Channel Type Data</i> .
eventId	Toolbar generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with internal interaction record.
channelType	The type of channel for which the method is being called. For more information, see <i>Channel Type Data</i> .
upgradeChannel	The name of the newly added channel.
upgradeChannelType	The type of the newly added channel.
upgradeEventId	The unique media item identifier for the new communication method.  <b>Note:</b> Fusion Service doesn't expect newCommEvent, startCommEvent, or closeCommEvent for these attached engagements.
inData	An object containing information about incoming events for customer identifiable data, as well as attributes containing the names of system or user-defined defined tokens.
callback	Returns results to the caller toolbar.

## downgradeCommEvent

This method is called by the toolbar to inform Fusion Service that a new channel has been removed from an existing engagement. For instance, an agent who's chatting or video conferencing with a customer, has a disconnection..

**Note:** If a closeCommEvent is received for the initial or primary channel of communication it's assumed that any attached communications are also disconnected.

Here's the downgradeCommEvent parameters:

Parameter	Description
channel	Name of the channel for which the method is called. For more information on what channels are available, see <i>Channel Type Data</i> .
eventId	A toolbar generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with internal interaction record.
channelType	The type of channel for which the method is being called. For more information, see <i>Channel Type Data</i> .
downgradeChannel	The name of the newly added channel.
downChannelType	The type of the newly added channel.
downEventId	The unique media item identifier for the new communication method.  <b>Note:</b> Fusion Service doesn't expect newCommEvent, startCommEvent, or closeCommEvent for these attached engagements.
inData	An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens.
callback	Returns results to the caller toolbar.

## getCustomerData Method

This optional method call is called by the toolbar to perform reverse lookup operations during a communication life cycle.

Here's the parameters for this method:

Parameter	Description
channel	Name of the channel for which the method is called.
appClassification	Name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there is no application classification. For a list of preconfigured values, see <i>Application Classification Code</i> .

Parameter	Description
eventId	A toolbar generated media event identifier. The same parameter value must be used for all method invocations for a communication. This parameter is stored with internal interaction record.
inData	An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens.
lookupObject	The business object used to run the reverse lookup. This parameter is optional and a default value of Contact is used for customer information. For more information about the list of system lookup objects, see System Business Objects.
callback	Returns results to the caller toolbar.
channelType	The type of channel for which the method is being called. Note that if, for example, the channel is PHONE but the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see <i>Channel Type Data</i> .

The following table shows a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
outData	An object containing possible identified data from Fusion Service for the contact or organization. This attribute contains the names of system tokens.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

Here's sample code for this method:

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function getCustomerData() {
var inData = {};
inData.SVCMCA_ANI = '5551234';
inData.SVCMCA_CONTACT_ID = '1234567890';
svcMca.tlb.api.getCustomerData('PHONE', 'ORA_SERVICE', '12345-1234-67890', inData, null, function
(response) {
if (response.result == 'success') {
console.log('Customer: '+response.outData.SVCMCA_CONTACT_NAME + ' ('+response.outData.SVCMCA_CONTACT_ID
+')');
console.log('Account: '+response.outData.SVCMCA_ORG_NAME+' ('+response.outData.SVCMCA_ORG_ID+')');
alert('Success! Results available in log. ');
} else {
alert('Operation finished with error: ' + response.error);
}
}, 'ORA_SVC_PHONE');
}</script>
```

```
</head>
<body>
<input type="button" value="Get customer data" onclick="getCustomerData()" />
</body>
</html>
```

## Window Management APIs

### Overview of Window Management APIs

The Window Management API facilitates additional toolbar management from the main horizontal toolbar. Fusion Service acts as a message bus for communication between horizontal, vertical, and notification toolbars, and enables opening and closing of the vertical toolbar.

The Window Management API is broken up is broken up into three groups, Embedded (Horizontal) Toolbar APIs, Live Window Controller (Vertical) Toolbar APIs, and Inter-Toolbar Communication APIs.

#### Embedded Toolbar API

The following table lists the Embedded Toolbar APIs and their usage.

**Note:** Although the Embedded (horizontal) Toolbar API functionality is still supported, you will find a more complete set of functionality if you use the Live Window Controller (Vertical) Toolbar APIs. Live Window is also where all new features will be developed and deployed going forward. For more information, see the Live Window Controller topic which follows this one.

Method	Description
openFloatingToolbar	Requests Fusion Service to programmatically open a floating toolbar.
isFloatingToolbarOpen	Requests Fusion Service to determine whether the floating toolbar is open or not.
closeFloatingToolbar	Requests Fusion Service to programmatically close the floating toolbar.
setToolbarDimensions	Sets toolbar dimensions for horizontal and vertical toolbars.

#### Live Window Controller API

This table lists the Live Window Controller (Vertical) Toolbar APIs and their usage.

Method	Description
openCompanionPanel	Requests Fusion Service to programmatically open a companion panel.
isCompanionPanelOpen	Requests Fusion Service to determine whether the companion panel is open or not.

Method	Description
closeCompanionPanel	Requests Fusion Service to programmatically close the companion panel.

## Inter-Toolbar Communication API

This table lists the Inter-Toolbar Communication APIs and their usage.

Method	Description
postToolbarMessage	Sends a message from one toolbar, such as the horizontal toolbar, to another, such as the floating toolbar using Fusion Service as a message bus.
onToolbarMessage	Registers a callback for the messages exchanged between toolbars.

## openFloatingToolbar Method

The toolbar calls this optional method to programmatically open an additional toolbar.

The parameters for this method are listed in the following table. The method has no return value.

Parameter	Description
barType	Indicates the type of toolbar. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION. For the floating toolbar, set this value to FLOAT_VERTICAL.
url	The URL of the page opened in the iFrame of the floating toolbar. If this value is null, Fusion Service attempts to locate the URL in the configuration.
height	The initial height of the additional toolbar.  <b>Note:</b> Height is limited to 470 pixels if you configure within the Functional Setup Manager UI. You can increase the height beyond the default by passing the desired value as a parameter in this API.
width	The initial width of the additional toolbar  <b>Note:</b> Width is limited to 470 pixels if you configure within the Functional Setup Manager UI. You can increase the width beyond the default by passing the desired value as a parameter in this API.

Parameter	Description
inData	An object containing information about incoming events for the floating dialog box. The inData object has attributes with the names of system or user-defined tokens.
callback	Method callback to inform the caller toolbar of the results.
location	The location of the toolbar in user page. The toolbar can be opened in the following locations: top left, top right, center, bottom left and bottom right. The valid parameter values are: TOP_LEFT, TOP_RIGHT, CENTER, BOTTOM_LEFT, BOTTOM_RIGHT. If location is null or any value other than the above ones, the default toolbar location, BOTTOM_RIGHT, is used.
closeIconVisible	If the close icon (X) in the top right position of the toolbar is visible. If the parameter is of null or any value other than false, the default value True is used.

The following table shows a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

Here's sample code to call the `openFloatingToolbar` method

```
svcMcaTlb.api.openFloatingToolbar("FLOAT_VERTICAL", vToolbarUrl, 470, 470, {"showAgents":"true",
"eventId":self.eventUuid, 'phoneLineId':self.phoneLineId}, function(response)
{ console.log(response); }
, 'CENTER', false);
```

## isFloatingToolbarOpen Method

The toolbar calls this optional method to determine whether the floating toolbar is currently open.

The parameters for this method as listed in the following table. The method has no return value.

Parameter	Description
barType	Indicates the type of toolbar. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION. For the floating toolbar, set this value to FLOAT_VERTICAL.
callback	Method callback to inform the caller toolbar of the results.

Here's the member attributes of the response object.

Member Attribute	Description
result	The server side status of the running method. This attribute has values of success or error.
toolbarOpen	True or false based on the state of the toolbar.
error	Contains the error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

## closeFloatingToolbar Method

The toolbar calls this optional method to programmatically close an additional toolbar.

The method parameters as listed in the following table. This method has no return value.

Parameter	Description
barType	Indicates the type of toolbar. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION. For the floating toolbar, set this value to FLOAT_VERTICAL.
callback	Method callback to inform the caller toolbar of the results.

The following table shows a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

## postToolbarMessage Method

The toolbar calls this method to send messages from one toolbar to another. Fusion Service sends a payload message to all opened toolbars, except to the toolbar that has sent the message.

The parameters for this method as listed in the following table. The method has no return value.

Parameter	Description
messagePayload	Payload to be passed to the other toolbars.
callback	Method callback to inform the caller toolbar of the results.

The following table shows a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

## onToolbarMessage Method

This method registers a callback for messages exchanged between toolbars. The callback is registered only for the toolbar that sent the message.

The following table shows the parameters for this method. The method has no return value.

Parameter	Description
callback	Method called when a message is received from other toolbars.

The following table shows a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
messagePayload	Payload from toolbar.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

## setToolbarDimensions Method

The toolbar calls this optional method to change the current dimensions of the toolbar which are represented by barType parameter. If the wanted screen dimension isn't available, the maximum screen space that's available is allocated and an error message is sent back to toolbar.

The parameters for this method as listed in the following table. The method has no return value.

Parameter	Description
barType	Type of toolbar to which the changes apply. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION.
height	The toolbar height.
width	The toolbar width. This parameter doesn't apply to MAIN_HORIZONTAL toolbars.
callback	Method callback to inform the caller toolbar of the results.

**Note:** The width and height attribute values are limited depending on the toolbar for which the method is invoked. For horizontal toolbars, the height has a maximum value of 70 pixels, and width value is ignored. For vertical toolbars, the height and width must not be more than 470 pixels. For notification toolbars, the height has a maximum value of 180 pixels and width has a maximum value of 350 pixels. Using a bigger value in method attributes leads to capping to maximum value and returning an error message.

Here's sample code to call this method.

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function setHeight(newHeight) {
    svcMca.tlb.api.setToolbarDimensions("MAIN_HORIZONTAL", newHeight, 0, function (response) {
        if (response.result == 'success') {
            alert('Success! New height set!');
        } else {
            alert('Operation finished with error: ' + response.error);
        }
    });
}
</script>
</head>
<body>
<input type="button" value="Change height" onclick="setHeight(50)"/>
</body>
</html>
```

The following table shows a list of member attributes of the response object. The object has no return value.

Member Attribute	Description
result	The server side running status. Result values are success or error.
error	Contains error message if the result value is an error. If not, then the value is undefined. For more information about error message codes, see Error Messages.

## Event Listener APIs

### Overview of Event Listener APIs

The event listener API allows the toolbar register listeners to track events that are triggered by Fusion Service. This allows Fusion Service to initiate outbound interaction events and send updates to the toolbar.

Here's a list of the Event Listener APIs and their usage.

Method	Usage
agentStateEvent	Notifies the application of changes in a user's signed in or availability status for the specified channel.
onDataUpdated	Registers a callback for customer data update events to be transmitted to the media toolbar with the updated information.
focusInteractionEvent	Notifies the application that the toolbar has changed the previously active interaction slot to a different interaction slot.
onOutgoingEvent	Registers a toolbar-initiated callback for the start of an outgoing event triggered from Fusion Service.
outboundCommError	Notifies Fusion Service that an error occurred during initiation of the outbound event.
onToolbarAgentCommand	Registers a listener with Fusion Service to provide agent control functionality.
onToolbarInteractionCommand	Registers a listener with Fusion Service to provide interaction control functionality.

### agentStateEvent Method

This method notifies Fusion Service of a change in the user's signed in or availability status for the specified channel.

**Note:** In order to properly reflect the agent state on the phone icon at the top of the application window, it's important to inform Fusion Service of the agent's current state: logged in, logged out, available, or on break. Upon establishing the initial connection to the toolbar, be sure to call `agentStateEvent()` passing the correct values for `isLoggedIn` and `isAvailable`. All state changes must be conveyed using the same method.

Here's a list of the method parameters:

Parameter	Description
channel	Name of the channel. (Required.)
eventId	Unique identifier for the event. (Required.)
isAvailable	Boolean to indicate if the user is available to receive routed assignments for the specified channel. (Required.)
isLoggedIn	Boolean to indicate if the user is signed in to the specified channel. (Required.)
stateCd	System code to indicate the current availability status of the user. (Optional.) For future use.
stateDisplayString	Translatable string to indicate the user's current channel activity state in the Fusion Service UI, such as idle, busy, on break on so on. This must be translated to the user's language. (Required.)
reasonCd	System code to indicate the reason for the current availability status. (Optional.) For future use.
reasonDisplayString	Translatable string to display the reason for the current status on the Fusion Service UI. (Optional.) For future use.
inData	Object containing the name value pairs if additional details are required.
callback	Function on the toolbar to indicate event receipt by Fusion Service Service.
channelType	The type of channel. (Required.)

The following is sample code to call this method.

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function agentStateEvent() {
svcMcaTlb.api.agentStateEvent("PHONE", "1", true, true, "AVAILABLE", "Available", null, null, {},
function(response) {
if (response.result == 'success') {
alert("success response for agentStateEvent received");
} else {
alert("error response for agentStateEvent received: "+response.error);
}
}, 'ORA_SVC_PHONE');
```

```

    }
  </script>
  <body>
    <input type="button" value="Fire agentStateEvent" onclick="agentStateEvent()"/>
  </body>
</html>

```

## onDataUpdated Method

The toolbar calls this method to register the callback listener for a data update which occurred in Fusion Service which must be transmitted to the toolbar.

Using this listener, Fusion Service can send notifications about updates of Fusion Service contact information which will then be reflected in the toolbar. Additionally, Fusion Service can use this method to notify the toolbar that Fusion Service actions, such as a Wrap-up, have been completed.

Here's the parameters for this method:

Parameter	Description
channel	Name of the channel for which the method is called.
appClassification	Name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there are no application classifications. For a list of ready to use values, see <i>Application Classification Code</i> .
callback	Method callback to inform the caller toolbar of the results.
channelType	The type of channel for which the method is being called. For instance, if the channel is PHONE and the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see Channel Type Data.

The response object has the following member attributes.

Attribute	Description
updateType	Type of update. The values can be CUSTOMER_DATA or WRAPUP_CLOSED or OFFER_TIMEOUT.
eventId	Media event identifier that's used to identify which communication event is targeted by this update.
outData	Object that has attributes with the names of system token, such as SVC_MCA_CONTACT_ID, SVC_MCA_CONTACT_NAME, SVC_MCA_ORG_ID, and SVC_MCA_ORG_NAME.

Here's sample code to call the method:

```

<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>

```

```
<script type="text/javascript">
function onDataUpdated() {
    svcMca.tlb.api.onDataUpdated('PHONE','ORA_SERVICE', function (response) {
        console.log('Media Event: '+response.eventId);
        console.log('Contact number: '+response.outData.SVCMCA_CONTACT_ID);
        console.log('Contact name: '+response.outData.SVCMCA_CONTACT_NAME);
        console.log('Organization number: '+response.outData.SVCMCA_ORG_ID);
        console.log('Organization name: '+response.outData.SVCMCA_ORG_NAME);
        alert('Customer data got updated, see in the log. ');
    }, 'ORA_SVC_PHONE');
}
</script>
</head>
<body>
<input type="button" value="Register data update listener" onclick="onDataUpdated()" />
</body>
</html>
```

## focusCommEvent Method

This optional method notifies Fusion Service that the toolbar has changed the previously active communication slot to a different communication slot.

Here's the parameters for this method:

Parameter	Description
eventId	A unique media item identifier. The value must match the value supplied by the toolbar in the newCommEvent.
channel	Name of the channel for which the method is called. For more information on what channels are available, see <i>Channel Type Data</i> .
channelType	The type of channel for which the method is being called.
inData	Object containing additional event details. An empty object may be passed. This parameter is reserved for future use.
callback	Function used by Fusion Service on the toolbar which indicates receipt of a Fusion Service event.

Sample code to call the method:

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function focusCommEvent() {
    svcMcaTlb.api.focusCommEvent("1","PHONE","ORA_SVC_PHONE",{ },function(response){
        if (response.result == 'success') {
            alert("success response for focusCommEvent received");
        } else {
            alert("error response for focusCommEvent received: "+response.error);
        }
    }
}
```

```

    }, );
    }
</script>
<body>
    <input type="button" value="Fire focusCommEvent" onclick="focusCommEvent()"/>
</body>
</html>
    
```

## onOutgoingEvent Method

The toolbar calls this method to register the callback listener for Fusion Service which triggers an outgoing communication event. Using this callback Fusion Service passes the information required for the toolbar to perform the outgoing event.

Here's the parameters for this method:

Parameter	Description
channel	Name of the channel for which the method is called.
appClassification	Name of the application classification defined for the current toolbar. If this parameter is passed as null, it's assumed that there are no application classifications. For a list of ready to use values, see <i>Application Classification Code</i> .
callback	Function used by Fusion Service on the toolbar which indicates receipt of an Fusion Service event.
channelType	The type of channel for which the method is being called. For instance, if the channel is PHONE and the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see Channel Type Data.

The response passed in the callback has attributes with system token names, such as `SVCMCA_ANI`, `SVCMCA_EMAIL`, `SVCMCA_CONTACT_ID`, and `SVCMCA_CONTACT_NAME`. There are no returns.

Here's sample code to call the method:

```

<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function onOutgoingEvent() {
    svcMca.tlb.api.onOutgoingEvent('PHONE','ORA_SERVICE', function (response) {
        console.log('Calling: '+response.SVCMCA_ANI);
        console.log('Contact name: '+response.SVCMCA_CUSTOMER_NAME);
        alert('Initiating outgoing call, see information in the log.');
```

## outboundCommError Method

The toolbar calls this method to notify Fusion Service that an error occurred during initiation of the outbound event. The error occurs if the identifier of the event, such as phone number, or email can't be used to establish a connection.

Here's the parameters for this method:

Parameter	Description
channel	Name of the channel for which the method is called.
commUuid	A unique identifier sent from Fusion Service to the toolbar containing the outgoing event notification.
errorCode	Code to identify the exception that can be used by the agent to identify the nature of the error to contact toolbar support.
errorMsg	Error message displayed to the user.
callback	Function used by Fusion Service on the toolbar which indicates receipt of an Fusion Service event.
channelType	The type of channel for which the method is being called. For instance, if the channel is PHONE and the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see Channel Type Data.

The response object has the following member attributes. There are no returns.

Attribute	Description
result	Represents the status of the method on the server side. Values are success and error.
error	Contains error messages. If there's no error, the value is undefined. For more information about error message codes, see Error Messages.

Here's sample code to call the method:

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function onTestError() {
    svcMca.tlb.api.outboundCommError('PHONE','123456789', '233', 'Could not establish connection, bad number!',
    function (response) {
        alert('Error message delivered, status: '+response.result);
    }, 'ORA_SVC_PHONE');
}</script>
</head>
```

```
<body>
<input type="button" value="Register data update listener" onclick="onTestError()" />
</body>
</html>
```

## onToolbarAgentCommand Method

This method registers a listener with Service to give the agent control functionality. The method is only called once during initialization.

Here's the parameters for this method:

Parameter	Description
channel	Name of the channel for which the method is called.
channelType	The type of channel for which the method is being called. For instance, if the channel is PHONE and the channelType isn't provided, the default value is set to ORA_SVC_PHONE. For more information, see Channel Type Data..
executor	The function implemented by the toolbar which is used by the <i>agentCommandPrototype</i> object.

The *agentCommandPrototype* object has these attributes:

Attribute	Description
eventId	Represents the status of the method on the server side. Values are success and error.
command	Contains error messages. If there is no error, the value is undefined. For more information about error message codes, see Error Messages.  The following commands are available: <ul style="list-style-type: none"> <li>• <code>getCurrentAgentState</code></li> <li>• <code>getActiveEngagements</code>: The <code>outData</code> must contain the <code>activeCount</code> number and the <code>engagements</code> array value. For example: <code>{ activeCount:1, engagements:[ {eventId:"1234"} ] }</code>. If there are no active engagements, the <code>engagements</code> parameter must be an empty array.</li> <li>• <code>makeAvailable</code></li> <li>• <code>makeUnavailable</code></li> </ul>
channel	The channel name.
channeltype	The type of channel.
inData	The object containing the name value pairs for the command parameters.

Attribute	Description
result	Populated by the toolbar after the command process has completed successfully. If there was a failure, the reason will be displayed.
resultDisplayString	Error displayed to the user, and populated by the toolbar.
outdata	Populated by the toolbar if the command required output data.
sendResponse	Callback function used upon completion of the command processing. The sendResponse method must be passed to the command object with the result populated. Also the outData and resultDisplayString attributes must be populated if required.

Here's sample code to call the method:

```

<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">
function agentCommandExecutor(command) {
var cmd = command.command;
switch(cmd) {
case "getCurrentAgentState":
command.outData = {
'channel':command.channel,
'channelType':command.channelType,
'isAvailable':true,
'isLoggedIn':true,
'state':"AVAILABLE",
'stateDisplayString':"Available",
'reason':null,
'reasonDisplayString':null};
break;
case "getActiveEngagements":
command.outData = {'activeCount':1,'engagements' : [ {eventId:"1234"} ] };
break;
case "makeAvailable":
alert("makeAvailable command invoked");
break;
case "makeUnavailable":
alert("makeUnavailable command invoked");
}
command.result = 'success';
command.sendResponse(command);
}

function registerAgentCommandListener() {
svcMcaTlb.api.onToolbarAgentCommand("PHONE", "ORA_SVC_PHONE", agentCommandExecutor);
}
</script>
<body>
<input type="button" value="Register interaction command listener"
onclick="registerAgentCommandListener()"/>
</body>
</html>
    
```

## onToolbarInteractionCommand Method

Registers a listener with Fusion Service to provide interaction control functionality. This must be called once during initialization. The executor function is used with an `interactionCommandPrototype` object.

The `interactionCommandPrototype` object has the following attributes:

Attribute	Description
eventId	Unique media item identifier supplied by the toolbar during the <code>newCommEvent</code> .
command	Name of the command to execute. The following commands are available: <ul style="list-style-type: none"> <li>• <code>accept</code>: Accepts the incoming engagement.</li> <li>• <code>reject</code>: Rejects the incoming engagement.</li> <li>• <code>setActive</code>: Discloses the specified engagement slot to the toolbar.</li> </ul>
slot	An optional toolbar identifier supplied by the toolbar during the <code>newCommEvent</code> .
inData	The object containing the name value pairs for the command parameters.
result	Populated by the toolbar after the command process has completed successfully. If there was a failure, the reason will be displayed.
resultDisplayString	Error displayed to the user, and populated by the toolbar if the command
outdata	Populated by the toolbar if the command required output data.
sendResponse	Callback function used upon completion of the command processing. The <code>sendResponse</code> method must be passed to the command object with the result populated. Also the <code>outData</code> and <code>resultDisplayString</code> attributes must be populated if required.

The following is sample code to call the method:

```
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
<script type="text/javascript">

function interactionCommandExecutor(command) {
switch(command.command)
case "accept":
alert("Received accept command");
break;
case "reject":
alert("Received reject command");
break;
case "setActive":
```

```

alert("Received setActive command");
break;
}
command.result = 'success';
command.sendResponse(command);
}

function registerInteractionCommandListener() {
svcMcaTlb.api.onToolbarInteractionCommand(interactionCommandExecutor);
}
</script>
<body>


```

## API Features

Features are functionality or sets of functionality that are supported by Fusion Service, and can be implemented by a toolbar. Features are supported by the API and underlying Fusion Service implementation. The following table lists the features of the API:

Feature Code	What you can do with the Feature
INBOUND_CALL	Handle messages related to inbound calls.
OUTBOUND_CALL	Handle messages related to outbound calls. The API notifies the toolbar to initiate the call using the supplied information.
TRANSFER_CALL	Handle messages related to a call transfer.
CONFERENCE_CALL	Handle messages related to a call conference.
OUTBOUND_CALL_EXTENSIONS	Handle messages related to outbound calls. The API notifies the toolbar to initiate the call with the specified phone number and extension.

## Error Messages

The following table lists the codes for error messages that are returned in case of an exception while running Oracle Fusion Service functionality in response to toolbar requests.

Error Message Code	When is the error message returned?
SVCMCA_ERR_NOTIMPLEMENTED	Specified functionality isn't implemented.

Error Message Code	When is the error message returned?
SVCMCA_ERR_MISSING_CONFIGURATION	Specified functionality is based on a configuration information that's missing. For example, call for <code>invokeScreenPop ()</code> method with a <code>pageCode</code> attribute that's not present in screen pop pages configuration in <b>Setup and Maintenance</b> .
SVCMCA_ERR_INVALID_DIMENSIONS	Specified dimension of the toolbars is invalid.
SVCMCA_ERR_INVALID_CONFIGTYPE	Specified configuration is of an invalid type.
SVCMCA_ERR_UNKNOWN_METHOD	Unknown method invoked on the API.

## Configure Screen Pop Pages

### Configure Business Objects

You can specify the business objects for reverse lookup and screen pop using business object configuration. This includes configuring a standard business object or a user business object.

A standard object is based on an out-of-the-box business object. A user business object is based on a user-defined business object that's created using the Application Composer. For more information about creating user business objects using Application Composer, see the Oracle Applications Cloud Configuring Applications Using Application Composer guide.

To configure a business object:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Screen Pop Configuration

The Screen Pop Configuration page is displayed.

2. Select the tab, Business Objects. The Manage Business Objects Configuration page is displayed.
3. View the business objects that are read only, and user objects that can be created, modified, and deleted.

### Create a Standard User Business Object

A standard business object is based on a previously configured business object, such as Service or Queue. To create a standard business object:

1. Click the add icon.
2. Select object type as **Standard**.
3. Type a previously configured object name. For example, type **ServiceRequest**.

4. Specify the full object path.

**Note:** The object path is the **Page Path** for the task flow. In commonly used pages, these are pre-seeded. However, if you create a new object, you must contact support to obtain your object path.

5. Click **Add**.

6. Click **Save** or **Save and Close**.

## Create a User Business Object

To create a user business object, you must first create a user object in the application by using the Application Composer. Create the fields, pages, and security settings for the new object. For example, create an object called SRTickets in the Service application. For more information about creating a user business object, see Oracle Applications Cloud Configuring Applications Using Application Composer guide. To create a user business object:

1. Click the add icon.

2. Select object type as **User-Defined**.

3. Select the application in which you created an object. For example, select **Service** application.

4. Type the name of the user-defined object that you created and click **Validate**. For example, type **SRTickets**.

If the object name is valid, the object full path is displayed.

5. Click **Add**.

6. Click **Save** or **Save and Close**.

### Related Topics

- [How You Configure the Media Toolbar](#)
- [What is Computer Telephony Integration \(CTI\)?](#)
- [How do I configure screen pop pages?](#)
- [Configure Screen Pop Pages](#)
- [How do I update existing setup data?](#)

## How do I configure screen pop pages?

You can configure screen pop pages to display pages of information that can aid an agent to start a customer interaction efficiently. For example, you can configure a screen pop page to display information about an open ticket logged by the call-in customer.

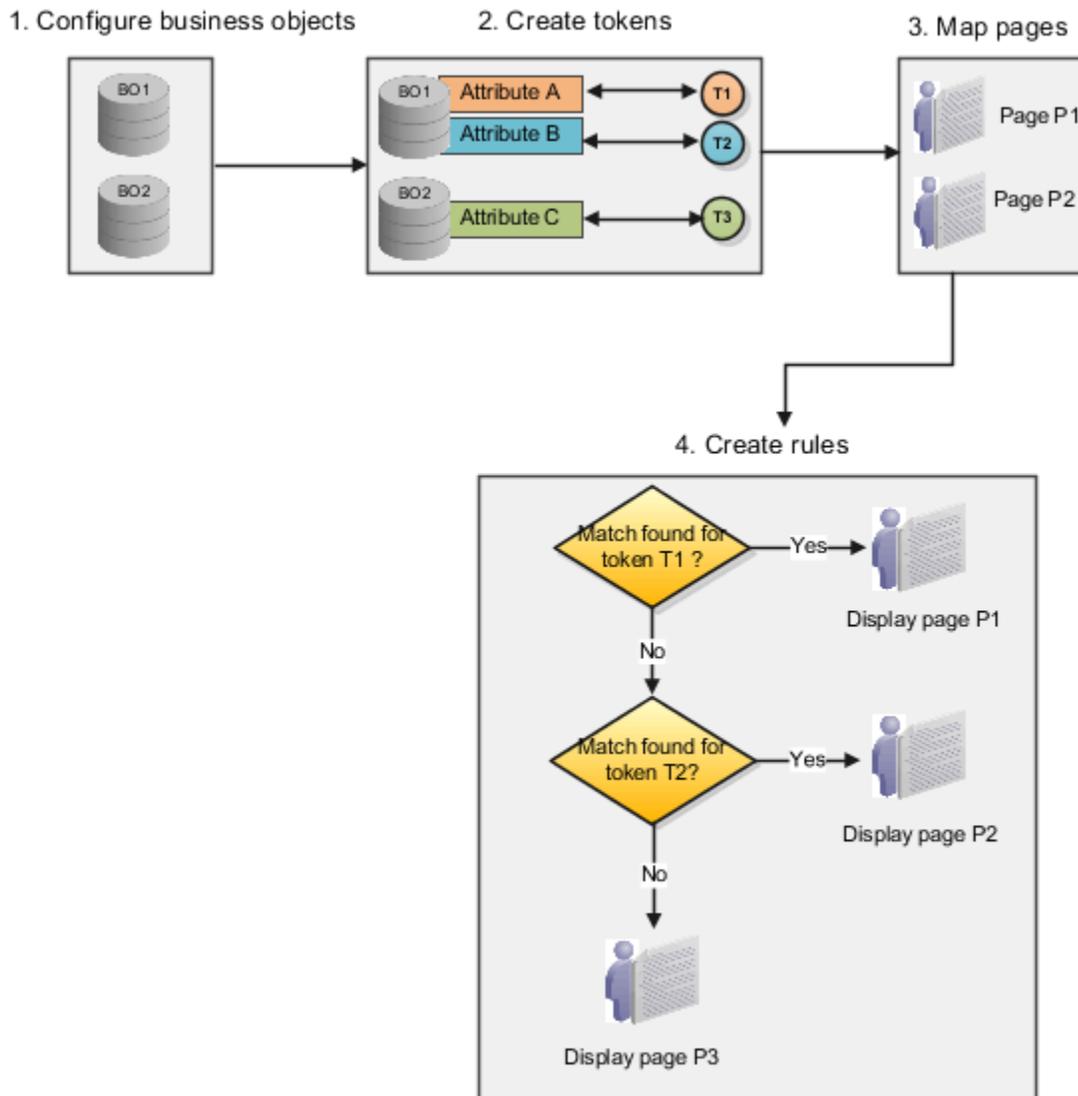
You can create screen pop pages for ready-to-use standard business objects or for user-defined objects. To create screen pop for user-defined objects, you must first create the objects, define the fields, pages, and other elements using Application Composer.

You configure screen pop pages in Setup and Maintenance using the following steps:

1. *Configure business objects.* These business objects are associated with standard or user-defined objects. Standard objects include ready-to-use objects, such as Service Requests or Queues, and the user-defined objects are created by the user.
2. *Create tokens.* Tokens are associated with the attributes of a business object. For example, you can create a token called `SVC_INVOICE_DATE` and associate it with the `Invoice_Date` field of the `Invoices` business object.
3. *Map pages.* Mapping associates a screen pop page with the pages of the underlying standard or user-defined object.

4. Create rules. Rules determine the page that's displayed when passing a token. Rules are defined in order of priority. For example, create rules that, if a service request number is available, display the service request page. If no service request number is available, but there is a contact identified, display the **Edit Contact** page. If no service request or contact information is available, display the **Create Contact** page.

The following figure illustrates the process of configuring screen pop pages:



## Configure Screen Pop Pages

This topic describes how to configure screen pop pages.

Configuring a screen pop page includes the following steps:

1. Configuring a business object
2. Creating a token
3. Mapping a page
4. Defining rules

To configure a screen pop page:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Screen Pop Configuration

**Note:** You may have to select All Tasks from the Show drop down list to view this task.

The Screen Pop Configuration page is displayed.

## Create a Business Object

Business object configuration enables you to specify the business objects that can be used for reverse lookup and for screen pop. You can configure a standard business object or a user business object. A standard object is based on a ready-to-use business object and a user business object is based on a user-defined business object that's created using the Application Composer. For more information about creating user business objects using Application Composer, see *Configuring Applications Using Application Composer* guide.

A standard business object is based on a preconfigured business object, such as Service or Queue.

To view a standard business object:

1. Click the **Business Objects** tab.  
Business Objects tab lists standard and user-defined business objects. The standard or the predefined objects cannot be modified or deleted.
2. Click the **Systems Objects** tab.
3. View the mapped system objects.
4. Click **Save** or **Save and Close**.

To create a user business object, you must first create a user object in the application by using the Application Composer. Create the fields, pages, and security settings for the new object. For example, create an object called SRTickets in the Service application. For more information about creating a user business object, see *Configuring Applications Using Application Composer* guide.

To create a user business object:

1. Click the **Business Objects** tab.  
Business Objects tab lists standard and user-defined business objects. The standard or the predefined objects cannot be modified or deleted.
2. Click the **User Business Objects** tab.
3. Click the add icon.
4. Select object type as **User-Defined**.
5. Select the application in which you created an object. For example, select **Service** application.
6. Type the name of the user-defined object that you created and click **Validate**. For example, type **SRTickets**.

If the object name is valid, the object full path is displayed.

7. Click **Add**.
8. Click **Save** or **Save and Close**.

## Create a Token

To create a token:

1. Click the **Tokens** tab.  
Tokens tab lists standard and user-defined tokens. The standard or the predefined tokens cannot be modified or deleted.
2. Click the **User-Defined Tokens** tab.
3. To add a token, click the add icon.  
A token consists of the following details:
  - o **Name**: Any alphanumeric value that represents the token
  - o **Token Code**: Unique code that's used to represent a token
  - o **Description**: String to provide extra information about the token
  - o **Object Name**: Business object to which the token is associated. Object Name is an optional value.
  - o **Object Attribute**: Attribute of a business object that's associated with the token. Attribute is an optional value.
4. Specify the values for the token and click **Save**.

## Map Screen Pop Page

After creating the token, map a screen pop page to an existing page of the associated business object.

1. On the **Screen Pop Page Configuration** page, click the **Pages** tab.
2. To create a page mapping, click the add icon.
3. Click the **User Interface Type** drop down list and select **Application Development Framework**.
4. Select a **Standard** or a **User-Defined** type.
5. Select an **Object Name**.
6. Enter a **Page Name**.
7. Enter a **Page Title** for the screen pop page. A title can contain a title prefix, the name of the token, and a title suffix. One of these values is mandatory.
8. If you have selected a User-Defined type of mapping, the Page Path is displayed automatically when you select the page. However, for a standard mapping, you must specify the page path. After specifying a page path, click **Inspect** to validate the page path and to list the page parameters.
9. In the Page Parameters Mapping section, associate required parameter with a token or a user-defined value.  
Based on the input that's passed to one or more page parameters, the information is displayed in the page. For example, based on the invoice number parameter, the invoice details screen is displayed.
10. Click **Save**.

The Show Only Used check box lists only those pages that are specified in a rule.

## Define Screen Pop Rules

Screen pop configuration rules determine which set of rules must be applied when a screen pop logic is invoked. Different screen pop rules can be invoked based on a number of different variables, such as application classification and channel. Based on the input parameters, you can choose from a number of different pages to screen pop to the agent. For example, pages such as the Contact Edit, Account Edit, and Service Request edit pages can be displayed to

the customer. Additionally, you can choose to create an object, such as a service request. This framework also allows for user-defined objects to be presented to the agent as part of the screen pop process.

Define rules in order of priority to display a screen pop page, when an associated token value is available. If a rule in a higher priority isn't satisfied, the next in the order is checked. To define rules:

1. On the **Screen Pop Page Configuration** page, click the **Rules** tab.
2. First, create a rule set. A rule set consists of one or more rules that are defined in an order of priority. To create a rule set:
  - a. Click the add icon. You can also select **Duplicate** from the **Actions** menu to duplicate an existing rule set.
  - b. Enter a **Rule Set Name**.
  - c. Select an **Application Classification** to which the rule set belongs.
  - d. Click the **User Interface Type** drop down list, and select either **Application Development Framework** or **Redwood** depending on your implementation.
  - e. A rule set is **Active** by default. To deactivate a rule set, clear the **Active** option.
  - f. Enter a description for the rule set.
3. Next, add rules to the rule set. To add rules:
  - a. Click the add icon.
  - b. The priority column displays the order of priority in which the rules are checked. You can change the priority by clicking up arrow and down arrow icons.
  - c. A rule is enabled by default. Clear the **Enable** option to disable a rule.
  - d. Select the communication channel to which the rule is applied. For example, a rule is applied only when an agent receives a service phone call or when there is a chat alert from a customer. You can add or modify the channels list by modifying the associated lookup values.
4. Select a **Token** name.
5. Select a page to display, when a token value is available.
6. Click **Save**.
7. When you're finished creating the rule sets, click **Done**.

#### Related Topics

- [How do I configure screen pop pages?](#)
- [How You Configure the Media Toolbar](#)
- [What is Computer Telephony Integration \(CTI\)?](#)
- [How do I update existing setup data?](#)

## Create Lookup Filters

Lookup sets are grouped by application classification. They contain one or more lookup filters defined in an order of priority, and each lookup filter is associated with a token.

When customers make service calls, they provide information such as Customer ID, Date of Birth, and First Name through an Interactive Voice Response (IVR) tool. Customer details are extracted from the database based on the availability of the token value, starting from the token of highest priority.

Use this page to configure reverse lookups and lookup filters for channel driven interactions with customers. Order the filters by the priority in which the tokens are evaluated. To create a new lookup filter, you can duplicate an existing one and make modifications. To create a new lookup filter from scratch, perform the following steps:

1. On the **Screen Pop Page Configuration** page, click the **Lookup Filters** tab.
2. Click the Add icon to create a lookup set.
  - a. Enter a **name**.
  - b. Select an **Application Classification** from the drop-down list.
  - c. Select the **Active** option to activate a lookup set.
  - d. Enter a **Description**.
3. Add filters within the newly created lookup set. To add filters, click the add icon.
  - a. Enter a **name**.
  - b. Select the interaction channel from the **Channels** drop-down list. The filter is applied to the selected interaction channel.
  - c. Select a **Token** from the drop-down list. When you select a token, the associated object name is displayed in the **Object Name** column.
  - d. Add more filters if required.

You can reorder the filters by clicking the up and down arrow icons. Alternatively, click the **Actions** drop-down list or select **Move Up** or **Move Down** option.
4. Click **Save** or **Save and Close**.

#### Related Topics

- [How do I configure screen pop pages?](#)
- [How You Configure the Media Toolbar](#)
- [What is Computer Telephony Integration \(CTI\)?](#)
- [How do I update existing setup data?](#)

## System Tokens

System tokens include the following tokens types.

- Data tokens: Represent data values in the Multichannel Application
- Control tokens: Control the flow of an interaction

The following table lists the data tokens.

Data Token Name	Token Code	Description
Asset Id	SVCMCA_ASSET_ID	Asset Identifier.
Asset Name	SVCMCA_ASSET_NAME	Asset Name.
Asset Number	SVCMCA_ASSET_NUM	Asset Number.

Data Token Name	Token Code	Description
Channel Id	SVCMCA_CHANNEL_ID	Channel Identifier which is populated from Channel Name to be passed for page parameters.
Communication direction	SVCMCA_COMMUNICATION_DIRECTION	Communication direction, which can either be inbound or outbound. Set the value to ORA_SVC_INBOUND for inbound and ORA_SVC_OUTBOUND for outbound direction. These values are defined in the ORA_SVC_IM_DIRECTION_CD Lookup Type.
Communication Reason	SVCMCA_WRAPUP_COMM_REASON	Communication Reason of the Interaction
Contact First Name	SVCMCA_CONTACT_FIRST_NAME	Contact's first name.
Contact ID	SVCMCA_CONTACT_ID	Contact person identifier. This ID value may be available on the customer documentation or it can be retrieved from the application for use.
Contact Job Title	SVCMCA_CONTACT_JOB_TITLE	Contact's job title.
Contact Last Name	SVCMCA_CONTACT_LAST_NAME	Contact's last name.
Contact Name	SVCMCA_CONTACT_NAME	Contact name. Obtained from Oracle Fusion Service for use.
Contact Organization ID	SVCMCA_CONTACT_ORG_ID	Contact's primary organization ID.
Contact Organization Name	SVCMCA_CONTACT_PRIM_ORG_NAME	Contact's primary organization name.
Contact Phone Number	SVCMCA_CONTACT_PRIMARY_PHONE	Contact's primary phone number.
Display Name	SVCMCA_DISPLAY_NAME	Contact name or other identifying contact information to be displayed in supplier toolbars.
Email	SVCMCA_EMAIL	Contact email. Can be obtained from IVR or from Oracle Fusion Service for use.
Interaction identifier	SVCMCA_INTERACTION_ID	Interaction identifier. Obtained from the application for use. Can be sent from the application using the APIs to prevent creating duplicate interactions.
Interaction Notes	SVCMCA_WRAPUP_INTERACTION_NOTES	Notes of the Interaction
Lead ID	SVCMCA_LEAD_ID	Lead Id. Can be obtained from IVR system or from FA module and reused subsequently.

Data Token Name	Token Code	Description
Lead Name	SVCMCA_LEAD_NAME	Lead name. Usually, will be obtained from FA module and reused subsequently.
Loyalty Member ID	SVCMCA_LOYALTY_MEMBER_ID	Loyalty Member Identifier
Loyalty Member Name	SVCMCA_LOYALTY_MEMBER_NAME	Loyalty Member Name
Loyalty Member Number	SVCMCA_LOYALTY_MEMBER_NUMBER	Loyalty Member Number
Mobile Phone Area Code	SVCMCA_MOBILE_AREA	Mobile Phone Area Code. Token value from the call data that can be passed to the contact picker when creating a contact.
Mobile Phone Country Code	SVCMCA_MOBILE_CC	Mobile Phone Country Code. Token value from the call data that can be passed to the contact picker when creating a contact.
Mobile Phone Local Number	SVCMCA_MOBILE_LOCAL	Mobile Phone Local Number. Token value from the call data that can be passed to the contact picker when creating a contact.
Object ID List	SVCMCA_OBJ_ID_LIST	Object Id List for filtered display of specific objects.
Opportunity ID	SVCMCA_OPPORTUNITY_ID	Opportunity Id. Can be obtained from IVR system or from FA module and reused subsequently.
Opportunity Name	SVCMCA_OPPORTUNITY_NAME	Opportunity name. Usually, will be obtained from FA module and reused subsequently.
Organization ID	SVCMCA_ORG_ID	Account or organization ID. The ID may be available on the customer documentation. The ID can be identified by Interactive Voice Response (IVR) or can be retrieved from Oracle Fusion Service for use.
Organization Name	SVCMCA_ORG_NAME	Account name. Obtained from Oracle Fusion Service for use.
Phone Area Code	SVCMCA_PHONE_AREA	Work Phone Area Code. Token value from the call data that can be passed to the contact picker when creating a contact.
Phone Country Code	SVCMCA_PHONE_CC	Work Phone Country Code. Token value from the call data that can be passed to the contact picker when creating a contact.

Data Token Name	Token Code	Description
Phone Extension	SVCMCA_PHONE_EXT	Work Phone Extension. Token value from the call data that can be passed to the contact picker when creating a contact.
Phone Local Number	SVCMCA_PHONE_LOCAL	Work Phone Local Number. Token value from the call data that can be passed to the contact picker when creating a contact.
Phone Number	SVCMCA_ANI	Automatic Number Identification value sent from telephony provider.
Resolution Code	SVCMCA_WRAPUP_RESOLUTION_CODE	Resolution Code of the Interaction
Service Request Identifier	SVCMCA_SR_ID	Service request identifier. Obtained from Oracle Fusion Service for use.
Service request Number	SVCMCA_SR_NUM	Service request number to be passed whenever the number is available.
Service Request Title	SVCMCA_SR_TITLE	Service request title. Obtained from the application for use.
Task ID	SVCMCA_TASK_ID	Task ID.
Transfer Reason	SVCMCA_WRAPUP_TRANSFER_REASON	Transfer Reason of the Interaction
Universal Work Object Identifier	SVCMCA_UWO_ID	Specifies the universal work object identifier.
Work Order Id	SVCMCA_WORK_ORDER_ID	Work Order Identifier.
Work Order Number	SVCMCA_WORK_ORDER_NUM	Work Order Number.

The following table lists the data tokens for HR HelpDesk use.

Data Token Name	Token Code	Description
Person Email	SVCMCA_PER_EMAIL	Person Email address
Person Id	SVCMCA_PER_PERSON_ID	Person Unique Identifier
Person List Name	SVCMCA_PER_LIST_NAME	Person last name, first name
Person Name	SVCMCA_PER_NAME	Person display name

Data Token Name	Token Code	Description
Person National Id Number	SVCMCA_PER_NAT_ID_NUM	Person's National Id Number
Person Number	SVCMCA_PER_NUMBER	Person Number
Person Phone	SVCMCA_PER_PHONE	Person Phone number

The following table lists the control tokens.

Control Token Name	Token Code	Description
Parent interaction identifier	SVCMCA_PARENT_INTERACTION_ID	Parent interaction identifier in the case of a transfer. Expected to be sent along a new communication event data of the second call.
Secondary Call Type	SVCMCA_2NDARY_CALL_TYPE	A type of secondary party call, which can be one of Transfer, Conference, and Consult. This value must be sent by the toolbar on a new communication event when transferring to the second agent.
Skip customer identification step	SVCMCA_BYPASS_IDENTIFY_CONTACT	Skips automatic customer identification upon receiving an inbound interaction. This token can be used with the <code>startCommEvent ()</code> call.
Skip customer verification step	SVCMCA_BYPASS_CUSTOMER_VERIFICATION	Skips automatic customer verification screen to be made available to the agent. This token can be used with the <code>startCommEvent ()</code> call.
Skip Reverse Lookup	SVCMCA_BYPASS_REVERSE_LOOKUP	Skip automatic reverse lookup of contact.
Skip the auto screen pop engine	SVCMCA_BYPASS_AUTO_SCREEN_POP	Skips the automatic run of screen pop engine upon accepting the interaction by the agent. This token can be used with the <code>startCommEvent ()</code> call.
Timeout	SVCMCA_WRAPUP_TIMEOUT	Specify the time, in seconds, before the Wrap Up window is automatically closed, by adding the following pair to this parameter: <code>SVCMCA_WRAPUP_TIMEOUT, #OFSECONDS</code> .  Replace the <code>#OFSECONDS</code> value with the actual number of seconds before the wrap up is automatically closed.  This token can be used with the <code>newCommEvent ()</code> call.

## System Pages

The following table lists the pages that are available for screen pop. Use the page codes with the `invokeScreenPop()` method to open a screen pop page. For more information about the method, see "Interaction API."

Page Name	Page Code	What does it do
Create Account	Create_Account	Accepts details of an account.
Create Contact	Create_Contact	Accepts details of a contact.
Create Lead	Create_Lead	Accepts details for a lead.
Create Opportunity	Create_Opportunity	Accepts details for an opportunity.
Create Service Request	Create_Service_Request	Accepts details of a service request.
Create Work Order	Create_Work_Order	Accepts details of a work order.
Edit Account	Edit_Account	Displays the details of an account or organization information. The displayed page information can be changed based on the rights associated with agent role.
Edit Asset	Edit_Asset	Displays details of an asset.
Edit Contact	Edit_Contact	Displays details of a contact or customer information. The displayed information can be changed based on the rights associated with agent role.
Edit Contact - Leads	Edit_Contact_Leads_Tab	Displays details of a lead for a given contact or customer.
Edit Contact - Opportunities	Edit_Contact_Opportunities	Displays details of an opportunity for a given contact or customer.
Edit Contact - Service Requests	Edit_Contact_Service_Requests	Displays details of a service request for a given contact or customer.
Edit Lead	Edit_Lead	Displays details of a lead.
Edit Loyalty Member	Edit_Loyalty_Member	Displays details of a Loyalty member.

Page Name	Page Code	What does it do
Edit Opportunity	Edit_Opportunity	Displays details of an opportunity.
Edit Service Request	Edit_Service_Request	Shows details of a service request. Page information can be edited according with the rights associated with agent role.
Edit Service Request - Work Order	Edit_Work_Order_From_SR	Shows details of a work order for a given service request.
Edit Work Order	Edit_Work_Order	Shows details of a work order.
Opportunity List	Opportunity_List	Shows details of an opportunity.
Service Request List	Service_Request_List	Shows details of a service request.
Work Order List	Work_Order_List	Shows details of a work order.

*Related Topics*

- [Overview of Interaction APIs](#)

## System Business Objects

The following table lists the business objects.

What would you like to do?	How to do it
Describe account or organization information.	Select Account
Describe activity information	Select Activity
Describe asset information.	Select Asset
Describe the contact or customer information.	Select Contact
Describe lead information.	Select Lead
Describe loyalty member information.	Select Member

What would you like to do?	How to do it
Describe opportunity information.	Select Opportunity
Describe person information.	Select Person Picker
Describe resource information.	Select Resource
Describe service request information.	Select ServiceRequest
Describe work order information.	Select WorkOrder
Describe wrap up information.	Select Wrap Up

## Channels Code

Channels are configured using the Functional Setup Manager within Oracle Fusion Service. The following table lists the channel codes:

Channel Code	Description
PHONE	Phone channel.
CHAT	Chat channel.
EMAIL	Email channel.

## Application Classification Code

The following table lists the ready-to-use application classification codes that the application recognizes. The list of application classifications can be modified using Functional Setup Manager.

Application Classification Code	Description
ORA_HRHD	Default classification for Human Resources Help Desk related setup for Lookup rules and Screen Pop rules.
ORA_SALES	Default classification for sales-related setup for Lookup rules and Screen Pop rules.

Application Classification Code	Description
ORA_SERVICE	Default classification for service-related setup for Lookup rules and Screen Pop rules.

## Channel Type Data

The following table lists the channel types, which are predefined lookups identified by the ORA\_SVC\_CHANNEL\_TYPE\_CD lookup type.

Channel Code	What is it used for
ORA_SVC_CHAT	Chat channel
ORA_SVC_EMAIL	E-mail channel
ORA_SVC_PHONE	Phone channel
ORA_SVC_SOCIAL	Social channel
ORA_SVC_WEB	Web channel
ORA_SVC_NONE	None

## Call Flow Parameter Settings

### Call Flow Parameter Settings

The call flow parameters determine the default and administrator-defined actions to be performed for a customer interaction. Customer interactions are calls with the customer in Digital Sales and calls or chats in Service Center. Administrator-defined settings override the default settings.

You can specify the settings listed in the following table:

Setting	Options	Description
Contact Required	Yes/No	Specifies whether the contact details of a customer must be displayed.

Setting	Options	Description
		<p><b>Note:</b> For Digital Sales implementations, you must select <b>No</b>.</p> <p>Select <b>No</b> if you're using Digital Sales.</p>
<b>Contact Verification</b>	<b>Yes/No</b>	<p>Specifies whether the customer details must be verified at the beginning of the call.</p> <p><b>Note:</b> For Digital Sales implementations, you must select <b>No</b>.</p>
<b>Screen Pop</b>	<b>Yes/No</b>	<p>Specifies whether a screen pop page must be displayed. Select <b>Yes</b>.</p>
<b>Wrap Up</b>	<b>Yes/No/Server Driven</b>	<p>Specifies whether a customer interaction requires wrap up. Select the <b>Server Driven</b> option to get notified by the toolbar if an interaction must be wrapped up.</p> <p><b>Note:</b> For Digital Sales implementations, this setting must always be enabled.</p>

## Configure Call Flow Parameters

Here's how you configure call flow parameters:

- In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Communication Channels
  - Task: Configure Call Flow Parameters
- Specify default settings for all interaction channels in the **Default Settings** section.
- In the **Administrator-Defined Settings** section, specify the settings for the individual interaction channels.

These settings override the default settings. For example, the default setting is to verify the contact.

**Note:** If you specify Yes in the Wrap Up setting, the Wrap Up UI will be displayed, and wrap up details and a transcript for every chat will be saved.

- Click **Save and Close**.

### Related Topics

- [How do I configure screen pop pages?](#)
- [How do I update existing setup data?](#)

## Default Contact Search

### Modify the Default Contact Search

You add or remove fields to modify the default contact search page. To modify the default contact search page, perform the following procedure:

1. Click **Navigator > Configuration > Sandboxes**, then activate a sandbox.
2. In the **Setting and Actions** menu, select **Edit Pages**.
3. In the **Edit Pages** window, select **Site**, and click **OK**. The Page Composer is displayed.
4. Select the Add Content tab.
5. Select the **Contact Search** option from the **Tools** group in the Navigator.
6. In the Contact Search page, click **Advanced**.
7. Add custom fields and click **Save**.
8. Specify a search name and select **Set as Default** option to set the search as default.
9. Click **OK**, and select the **Contact Search** window.
10. Close the **Contact Search** window.
11. In the **Editing User Interface** screen, open the **Select** tab.
12. Click **Service**, and then click **Edit Component**.
13. In the **Edit Components** window, click **OK**.
14. Verify the changes and publish the sandbox.

### Related Topics

- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Configure Wrap Up

### Populate Wrap Up Parameters Automatically

You can now receive wrap up data including standard attributes as well as user-defined attributes from the toolbar. You must expose these in the Create Wrap Up page to pre-populate these fields for the agent. This topic describes how to configure a wrap up screen pop pages. Configuring a wrap up screen pop page includes the following steps:

1. Creating a token

2. Mapping a page
3. Defining rules

To configure a wrap up screen pop page:

1. Sign in to Oracle Cloud applications as a Service Administrator.
2. Navigate to **Setup and Maintenance**.
3. Click the **Setup** drop-down list and select **Service**.
4. Select the **Communication Channels** functional area, and then select **Manage Screen Pop Configuration** task.

The Screen Pop Configuration page is displayed.

## Create a Wrap Up Token

To create a wrap up token:

1. Click the **Tokens** tab.

Tokens tab lists standard and user-defined tokens. The standard or the predefined tokens cannot be modified or deleted.

2. Click the **User-Defined Tokens** tab.
3. To add a token, click the add icon.

A token consists of the following details:

- o **Name:** Any alphanumeric value that represents the token
  - o **Token Code:** Unique code that's used to represent a token
  - o **Description:** String to provide extra information about the token
  - o **Object Name:** Business object to which the token is associated. Select Wrap Up from the drop-down list.
  - o **Object Attribute:** Attribute of the wrap up business object that's associated with the token. Object Attribute is an optional value.
4. Specify the values for the token and click **Save**.

### Related Topics

- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Configure the Create Wrap Up Page using Application Composer

You can configure the Create Page Layout page to automatically populate the fields that are of interest to the agent. The following procedure describes how to configure the Create Wrap Up page using Application Composer.

1. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.
2. After you activate the sandbox, from the Navigation panel, go to **Application Composer**.
3. In the Application Composer, select the **Service** check box from the **Object Tags** options.
4. In the **Standard Objects** list, select **and expand Service Request > Pages**.

5. The **Service Request: Pages** page contains sections for configuring the different layouts. The **Creation Page Layouts** section enables users to define new fields. The fields that you define in this layout determine the information that the users are asked to enter when creating the SR. Click the Edit icon to add, remove, and reorder the fields and the buttons available on this form.
6. After you make the required updates, save the layout.
7. To use this layout to view the SRs, select **Active** to make the layout active for users.

#### Related Topics

- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Test the Wrap Up Attribute Tokens and Values

You can use any testing tool of your choice to test the wrap up tokens and values that will be automatically populated for the agent as part of the screen pop process.

To do this, create a new call, and pass the tokens and values for the wrap up attributes you want to automatically populate for the agent. You can use the Interaction API methods to do this:

- `newCommEvent()`
- `startCommEvent()`
- `closeCommEvent()`

For more information about Interaction API methods, see [Interaction API](#).

# 8 Interactions

## Interactions

### Overview of Interactions

An interaction is recorded when a communication occurs with customer contacts by means of any communication channel such as email, or phone, or chat.

Web isn't a ready-to-use supported channel for Interactions. Currently, there is limited support for custom objects and channels.

Interactions help you track inbound and outbound communications with your users across any channel. An interaction is typically created for each outbound and inbound communication. An outbound communication is initiated by a company employee such as a salesperson by a phone call, or marketing manager by means of an email. An inbound communication is initiated by a prospect or contact by means of inbound phone call or email.

An interaction tracks whether a communication happened, the channel used for communicating, and any associated business objects that were created or edited during that communication. You can use the Interaction History view to access past wrap up records.

Interactions help track the following ready to use attributes:

- Contact
- Account
- Channel
- Start Time
- End Time
- Resource
- Duration
- Direction
- Associated Business Objects
- Parent Interactions

An interaction can be associated to the following objects:

- Account
- Contact
- Service Request
- Activity
- Work Order
- Lead
- Opportunity

In the Fusion Service Classic UI, the interaction history view subtab The Interaction History view subtab displays for the following objects by default: Service Request, Account, and Contact objects.

The View Interactions privilege (SVC\_VIEW\_INTERACTIONS\_PRIV) is required for users to view interactions. This privilege is available by default to the Sales and Service Representative, Manager and Administrator roles.

To display the **Service Request** subtab under the Account and Contact details pages, the implementation status of the Service offering must be **Implemented**.

If you need to check your implementation status, here's how you do it:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: **Service**
2. Click **Actions > Edit Implementation Status**.
3. In the **Edit Implementation Status: Service** dialog box, select the **Implemented** option.
4. Click **Done**.

#### Related Topics

- [Configure Chat Wrap Up](#)
- [Configure Cross-Channel Interactions](#)
- [Overview of a Service Request Lifecycle](#)
- [How you View Interaction History for the Service Request](#)

## Configure Cross-Channel Interactions

### Overview of Cross-Channel Interactions

Cross-channel interactions enable the administrators to track and manage inbound and outbound interactions that cross from one channel to another.

For example, when a customer begins an inbound-chat communication with an agent, and then the agent promotes that communication to a phone call, the communication throughout its life cycle and across both channels can be tracked and managed.

The administrator can also identify and associate the business objects that have been edited or created during this communication, and configure the business objects that are available for association with the interaction model. The administrator can also turn on cross channel interaction tracking for service requests.

**Note:** For cross channel connections to function properly, the account, contact, and resource must be a match with the associated record. For example, if you have a service request where the primary contact isn't the same as the person on the phone, the record won't connect through interactions.

## Configure Cross-Channel Interactions

This topic describes how to set up and configure cross-channel interactions.

The **Manage Setup and Configuration for Cross-Channel Interactions** page provides the administrator with a single page to associate business objects, setup all the associated profile options pertaining to cross-channel interactions, and set the date and time periods that qualify objects for automatic association to an interaction.

To set up and configure for cross-channel interactions, do the following:

1. In the Setup and Maintenance work area, select the **Tasks** icon.
2. Search for the following string:  
**Manage Setup and Configuration for Cross-Channel Interactions**
3. Click the **Manage Setup and Configuration for Cross-Channel Interactions** link.
4. The **Enable Automatic Association of Objects with Interactions** field is selected as **Yes** by default. This enables automatic association of the objects with interactions. When you select **No**, business objects aren't associated with interactions automatically.
5. Select the period, in minutes, to go back from the current time while finding a potential interaction based on the creation date in the **Search Retrieval Range Prior to the Creation Time** field.

The default time is set to 5 minutes. You can set the time between 1 minute and 120 minutes. If the Enable automatic association option is set to No, setting the time here's irrelevant.

6. Select the period, in minutes, to go back from the current time while finding a potential interaction based on last updated date in the **Search Retrieval Range Prior to the Last Update Time** field.

The default time is set to 5 minutes. You can set the time between 1 minute and 120 minutes. As with the previous setting, if the Enable automatic association option is set to **No**, setting the time here is irrelevant.

If the Enable automatic association option is set to **No**, setting the time here is irrelevant.

**Note:** When you set both the periods **Search Retrieval Range Prior to the Creation Time** and **Search Retrieval Range Prior to the Last Update Time**, then a query is run and an association is made for one or both the periods based on the match.

**CAUTION:** Once you start an interaction, it's bound by the time settings you have configured. In other words, if you've set the interaction time period to be five minutes and the call lasts ten minutes, the last five minutes of the interaction will not be recorded.

7. In the **Automatically Associated Objects** section, you can configure whether to automatically associate service requests with interactions. These are set to **Yes** by default.

Out of the box, you can select the objects shown in the table in the Cross-Channel Options topic which follows this topic.

8. Click **Save** or **Save and Close**.

## Cross-Channel Options

The following table describes the types of cross-channel options that you can configure.

Cross-channel Option	Description
SVC_INTERACTION_AUTO_ASSOCIATION_ENABLE	Enables automatic association of objects to an interaction. It is set to Off by default.

Cross-channel Option	Description
	<p><b>Note:</b> During bulk importing of data, enabling this option to Yes may result in associating multiple objects to the open interactions. This results in a large number of imported CRM objects getting associated with a single interaction, and leads to distorted data. To avoid this situation, the option may be set to N.</p>
SVC_INTERACTION_CREATION_DATE_INTERVAL_FOR_AUTO_ASSOCIATION	Sets the period, in minutes, to go back from the current time while finding a potential interaction based on creation date
SVC_INTERACTION_LAST_UPD_DATE_INTERVAL_FOR_AUTO_ASSOCIATION	Sets the period, in minutes, to go back from the current time while finding a potential interaction based on last updated date.
SVC_INTERACTION_ENABLED_OBJECTS - (for service request)	<ul style="list-style-type: none"> <li>For Service Requests, set this to the value <b>SVC_SERVICE_REQUESTS</b>.</li> <li>For Activities, set this to the value: <b>ZMM_ACTIVITIES</b>.</li> <li>For Opportunities, set this to the value: <b>MOO_OPTY</b>.</li> <li>For Work Orders, set this to the value: <b>SVC_WORK_ORDERS</b>.</li> <li>For Leads, set this to the value: <b>MKL_LM_LEADS</b>.</li> </ul>

## Data Security Policies for Interactions

### How do I define data security policies for custom roles?

There are data security policies available for interactions which enable you to do the following:

- Provide self-service users a view of interactions where they're the primary contact.
- Provide service users a view of all service interactions.
- Provide help desk users a view of all help desk interactions.

These policies are available with the predefined duty roles as listed in the following table. You can also add these policies to custom roles.

The following table lists the data security policy Service Interaction Header and its enforcement across predefined duty roles.

Duty Role		Business Object	Condition
Customer Self-Service Usage	Can Manage	Service Interaction Header	For all my interactions
Service Request Administrator	Can Manage	Service Interaction Header	For all CRM interactions
Service Request Channel User	Can Manage	Service Interaction Header	For all CRM interactions

Duty Role		Business Object	Condition
Service Request Contributor	Can Manage	Service Interaction Header	For all CRM interactions
Service Request Power User	Can Manage	Service Interaction Header	For all CRM interactions
Service Request Troubleshooter	Can Manage	Service Interaction Header	For all CRM interactions
Conversation Message Management	Can Manage	Service Interaction Header	For all CRM interactions
Conversation Message Administration	Can Manage	Service Interaction Header	For all CRM interactions
HR Help Desk Administration	Can Manage	Service Interaction Header	For all human resource interactions
HR Help Desk Service Request Management	Can Manage	Service Interaction Header	For all human resource interactions
HR Help Desk Analysis	Can Manage	Service Interaction Header	For all human resource interactions
Internal Service Request Administration	Can Manage	Service Interaction Header	For all human resource interactions
Internal Service Request Analysis	Can Manage	Service Interaction Header	For all human resource interactions
Internal Service Request Management	Can Manage	Service Interaction Header	For all human resource interactions
HR Service Request Analysis	Can Manage	Service Interaction Header	For all Help Desk interactions
HR Service Request Administration	Can Manage	Service Interaction Header	For all Help Desk interactions
HR Service Request Management	Can Manage	Service Interaction Header	For all Help Desk interactions

If you've created a custom job role, you must add one of the Data Security Policies mentioned in the previous table.

Here's how you do it:

1. On the **Roles** tab of the Security Console, search for and select your custom role.
2. In the search results, click the down arrow for the selected role and select **Edit Role**.

The Edit Role: Basic Information page is displayed.

3. Click the **Data Security Policies** train stop.
4. Click **Create Data Security Policy**.

The Create Data Security Policy dialog box is displayed. A Start Date value is automatically assigned to the policy but can be changed.

5. In the **Policy Name** field, enter a policy name.

The names of predefined data security policies begin with the words Grant on.

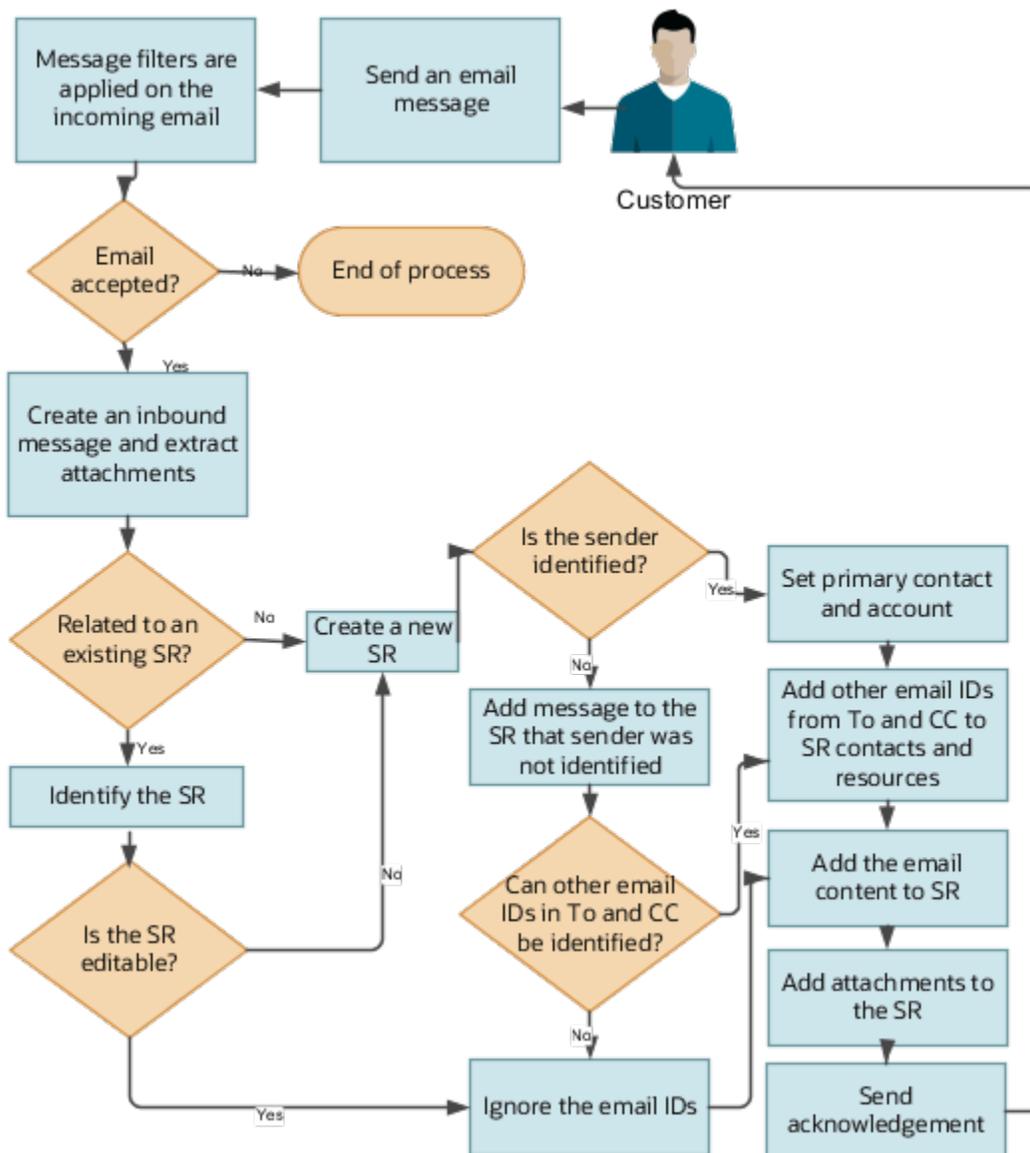
6. Search for and select the database resource **Service Interaction Header**.
7. In the Data Set field, select **Select by instance set**.
8. Select a Condition Name.

- 
9. In the **Actions** field, select the actions to which this data security policy applies.
    - 11. **Note:** The Manage, Update and Read Actions are required for Chat or Call Center Agents.
  10. Click **OK** to save the data security policy.
  11. Click the **Summary** train stop.
  12. Click **Save and Close** to save the role.
  13. Click **OK** to close the confirmation message.

# 9 Email Channels

## How are inbound messages processed?

An inbound message is created when you receive an incoming service email from a customer or a partner. This flowchart describes the process flow for an incoming customer email:



1. A customer or a partner sends an email requesting support.
2. If an inbound message filter exists, then the filter is applied to the incoming message.
3. If the message is accepted, then an inbound message is created, and any associated attachments are extracted.

4. The message is verified to see if it's related to an existing Service Request (SR).
  - o If the inbound message is related to an existing SR:
 

The related SR is identified. If the related SR can be edited, then the email content and attachments are added to the SR. If the original SR can't be edited, then a new SR is created.
  - o If the inbound message isn't related to an existing SR, then a new SR is created.
5. The email ID of the sender is validated against the customer or partner records in the database.
  - o If the email ID of the sender exists in the records, then the primary contact and the account are updated on the SR.
  - o If the From email ID doesn't exist in the database, then a message is added to the SR that the sender can't be identified.
  - o If more than one contact with the same email ID exists in the database, then the following scenarios are possible:

Scenario	Primary Contact in the SR	Acknowledgment Sent
Sender's email address matches the email address of 1 contact, 1 partner, and 1 resource.	The matching contact is set as the primary contact in the SR.	An acknowledgment email is sent to the sender.
Sender's email address matches the email address of 2 contacts.	No primary contact is set in the SR.	An acknowledgment email is sent to the sender. The email states that the sender couldn't be identified because multiple contacts were found with the email address of the sender.  Additional information is requested from the sender.
Sender's email address matches the email address of 2 contacts and 1 partner.	No primary contact is set in the SR.	An acknowledgment email is sent to the sender. The email states that the sender couldn't be identified because multiple contacts were found with the email address of the sender.  Additional information is requested from the sender.
Sender's email address matches the email address of 1 partner and 1 resource.	The matching partner is set as the primary contact in the SR.	An acknowledgment email is sent to the sender.
Sender's email address matches the email address of 2 partners and 1 resource.	No primary contact is set in the SR.	An acknowledgment email is sent to the sender. The email states that the sender couldn't be identified because multiple contacts were found with the email address of the sender.

Scenario	Primary Contact in the SR	Acknowledgment Sent
		Additional information is requested from the sender.
Sender's email address matches the email address of 1 resource.	The matching resource is set as the primary contact in the SR.	An acknowledgment email is sent to the sender.

6. All other email IDs in the **To** and **CC** fields in the message are checked to see whether they exist as resources or contacts in the application.
  - o If they exist as contacts, they're added to the SR contacts.
  - o If they exist as resources, they're added to the SR team.

**Note:** If the other email IDs don't match any resource or contact in the application, then they aren't added to the SR. But they're displayed in the SR message.

7. If the primary contact set in the SR is associated with only one account, then that account is associated with the SR. If the primary contact is associated with more than one account, then the primary account of the primary contact is set as the account on the SR.
8. The incoming message content and the attachments are added to the new SR.

## How do I set up inbound and outbound email?

You can configure email to use a single email channel to handle both inbound and outbound email messages. Inbound messages are the messages that you receive from your customers. Outbound messages are the messages that you send to your customers.

**Note:** When your customers receive an email from your company, they can reply directly to the email. They don't have to change the **To** address in the reply. The **To** address already displays the account name field of the channel that the agent uses in the outbound message.

Use the following tasks in Setup and Maintenance to set up inbound and outbound email.

No.	Task	Describes how to
1.	Enable Configuration of Email Communications	Enable the tasks required to configure inbound and outbound email communications for service requests.
2.	Configure an Email Channel	Configure an email channel for your organization.
3.	(Optional) Create and Update Inbound Message Filters	Set up email filters. Filters enable you to set one or more criteria based on which an incoming

No.	Task	Describes how to
		message from a customer or a partner can be accepted or rejected.
4.	Configure Profile Options for Inbound and Outbound Email	Configure inbound and outbound email profile options.
5.	(Optional) Define Email Templates	Define email templates.
6.	(Optional) Modify Acknowledgment Messages for Inbound Email	Modify the predefined acknowledgment messages provided by the application according to your company's requirement.
7.	Access Point Setup for Inbound Emails: This section consists of multiple topics.	The procedures in this section describe how to verify your email channel configurations and how to register the correct access points with the UMS.
8.	Configure a Job to Process Inbound Emails	Configure a job to process inbound emails to retrieve emails from the customer at regular intervals.

## Enable Configuration of Email Communications

Before you start your configuration, you must enable the tasks required to configure inbound and outbound email communications for service requests.

1. Sign in as an administrator or a setup user.
2. Navigate to the **Setup and Maintenance** work area and select the **Service** offering.
3. Click the **Change Feature Opt In** link.  
The Opt In: Service page is displayed.
4. In the **Communication Channels** row, click **Edit** in the **Features** column.  
The Edit Features: Communication Channels page is displayed.
5. For the **E-mail Communications** feature, select the **Enable** check box.
6. Click **Done**.

## How do I configure an email channel?

To send emails to your customers and to receive emails from them, you must first set up an email channel.

You can create separate email channels for different application stripe codes. For example, one for CRM and one for HCM. However, you can use the same email channel for both inbound and outbound emails:

**Note:** You can add attachments totaling 10MB to an email.

- **Inbound email:** Indicates the service emails received from your customers. As part of your implementation, you must set up a forwarding rule on your company email server to redirect these emails to Oracle's inbound email ID. This is the same email account that Oracle provided at the time of provisioning. For example, all the support emails that are sent to `TechSupport@mycompanydomain.com` are forwarded to `pod_name.fa.extservice.incoming@pod_name-opcwf.mail.dcsn.oraclecloud.com` for processing. The `SVC_INBOUND_EMAIL_ADDRESSES` profile option indicates the Oracle email ID to which the support mails must be forwarded.

If it's required for your company, you can also create different support email channels for different business units or divisions. For example, `TechSupportDiv1@mycompanydomain.com`, `TechSupportDiv2@mycompanydomain.com`, and so on. All the support emails sent to these different support email channels are forwarded to `pod_name.fa.extservice.incoming@pod_name-opcwf.mail.dcsn.oraclecloud.com` for processing.

**Note:** If you're implementing HR Help Desk or Internal Help Desk, then you must define a channel with the appropriate application stripe. The account name of the channel must match the email address of your mailbox from which you're redirecting or forwarding emails to the Oracle mailbox mentioned above. If you don't define the appropriate channel, the requests created for the emails are set with the CRM application stripe. In such cases, you must run an ODI import process to update the application stripes of the SRs.

The `SVC_INBOUND_EMAIL_ADDRESSES` profile option contains two email IDs:

- For CRM, use the email ID that contains the text 'extservice' as a part of the ID, as the forwarding email ID.

**Note:** You must avoid updating these inbound email addresses. If you have to update these inbound email addresses for some reason, you must complete the following steps:

- Update the corresponding forwarding rule.
- Ensure that you register the updated inbound email addresses as access points for inbound email. Refer to [How do I register or unregister access points for inbound email?](#)

- **Outbound email:** Indicates the emails that are sent by the Service application from the service request. For example, when an agent responds to the primary customer contact.

To ensure that your outbound email is delivered successfully to your external recipients, you must set up a Sender Policy Framework (SPF) policy on your domain.

To enable Oracle to send out an email on your behalf, you must do the following:

- Set up an SPF policy on your domain as an authentication mechanism. The exact method of setting up an SPF policy varies from one domain provider to another. For example, `v=spf1 include:spf_c.oraclecloud.com ~all`.
- If you want to set the support agent's name as the **From Name** in outbound emails, set the value for the `SVC_USE_RESOURCE_NAME_IN_OUTBOUND` profile option to **Yes**. For more information, refer to [How do I set the From Name in outbound emails?](#)

To configure an email channel for the customer:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Communication Channels
2. In the **Service Channels** page, click **Create Channel**.
3. In the **Create Channel** window:
  - a. Select a **Stripe Code**.  
Select **CRM** to process emails from and to external customers. Select **HCM** to process emails from and to internal employees, through the HCM Help desk support.
  - b. The **Purpose** field is set to **Support** by default.
  - c. Select the **Channel Type** as **Email**.
  - d. Specify the support email ID of your company as the **Account Name**. For example:  
`support@mycompanydomain.com`  
If a forwarding rule is configured, all the mails that are sent to the specified support email ID are forwarded to Oracle's inbound email ID. If an outbound email is configured, Oracle can send mails to the customer as the specified support email ID, on your behalf.
  - e. Verify whether the generated **Channel Code** is unique.  
The channel code is autogenerated and it uniquely identifies a communication channel when exporting or importing channels from one environment to another.
    - If the autogenerated channel code is unique, you can leave it unchanged.
    - If the autogenerated channel code isn't unique, add a set of characters to the code to make it unique.
  - f. (Optional) Specify a **Display Name** to indicate any information about the channel, such as the name of the deploying company for which the channel is being configured.
  - g. When a new channel is being created, it's active by default. To deactivate it, clear the **Active** option.
  - h. (Optional) From the **Business Unit** drop-down list, select a Business Unit (BU).  
The BU set in the scope is selected by default, but you can select a different BU. This column appears only if the multiple business units feature is turned on.
  - i. Click **Save**.

## Inbound Message Filters

### Use Inbound Message Filters

Based on the inbound message filter criteria you set, incoming messages from customers or partners can be accepted or rejected.

Message filter patterns are specified using regular expressions. For example, to specify a filter pattern to accept all emails from Oracle employees, the regular expression is given as: **`^[A-Za-z0-9._%+]*@oracle\.com`**

You can set more than one filter. Filters are arranged in the descending order of priority on the Manage Email Filters page. The topmost filter has the highest priority. When a message comes in, the filter criteria are checked in the order of priority. If the first filter criterion doesn't apply to a message, the subsequent ones are checked. If any of the filter criteria match the incoming message, the message is accepted or rejected based on the filter specifications.

**Note:** It's important that you pay special attention while setting up email filters. If the User Messaging Service (UMS) setup rejects any email due to the filter setup, the rejected email can't be processed again by the application and it's lost.

To view the existing inbound message filters or to reorder their priorities:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Email Filters

The Inbound Message Filters page displays a list of the existing inbound message filters.

2. If you want to change the priority of a filter:
  - a. Select the filter whose priority you want to change.
  - b. Click anywhere on the empty spaces in the selected row, and then drag the row to the required position.

## How do I create an inbound message filter?

To create an inbound message filter:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Email Filters
2. On the **Inbound Message Filters** page, click **Create**.
3. On the **Create Message Filter** page, select a filter type. Filter type indicates the message part on which the filter is applied. A filter type can be one of the following:
  - o File attachment: A filter is applied to the file type of an attachment.
  - o Header: A filter is applied to a message header.
  - o Mime attachment: A filter is applied to the mime type of an attachment.
  - o Reply to: A filter is applied to the Reply To address.
  - o Sender: A filter is applied to the sender of the message.
  - o Subject: A filter is applied to the subject of the message.

**Note:** File attachment and Mime attachment filters prevent attachments from getting added to a Service Request (SR) or SR message. But they don't prevent the creation of the SR or SR message.

4. Specify a **Field Name**. The field name is mandatory only for Header filters.
5. Specify an alphanumeric **Filter Pattern**. For examples, see "Examples of Inbound Message Filters".

6. Select an **Action on Pattern Match** to Accept or Reject.
7. Specify an optional **Description**.
8. Click **Create**.

**Note:** All filters are enabled by default. To disable a filter, update the properties as described in "Update an Inbound Message Filter."

## Update an Inbound Message Filter

To update an inbound message filter:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Email Filters
2. On the **Inbound Message Filters** page, click the filter type that you want to update.
3. On the **Update Message Filter** page, update the filter properties. You can update all the properties except the filter type.
  - Note:** If you want to disable a filter, select **Yes** in the **Disabled** field. The default value is **No**.
4. After you modify the filter properties, click **Save and Close**.

### Related Topics

- [How are inbound messages processed?](#)
- [Use Inbound Message Filters](#)
- [How do I create an inbound message filter?](#)
- [What are some examples of inbound message filters?](#)
- [How do I update existing setup data?](#)

## What are some examples of inbound message filters?

Here are some examples of regular expressions for filter patterns of inbound message filters.

**Note:** Use the "."\* wildcard characters to match 0 or more occurrences of any character.

Filter Type	Regular Expression Example
File attachment	Attachments that are files with either .pdf, .txt, or .html file extensions: .pdf .txt .html

Filter Type	Regular Expression Example
Header	<p>Emails with headers that contain the string Gentle Reminder:</p> <ul style="list-style-type: none"> <li>• ^Gentle Reminder[A-Za-z0-9._%+~]*</li> <li>• ^Gentle Reminder.*</li> </ul>
Mime attachment	<p>Content Type header with values such as text/plain, text/html, image/jpeg, or application/octet-stream:</p> <p>text/plain text/html image/jpeg application/octet-stream</p>
Reply to	<p>Emails that are sent by the support team:</p> <ul style="list-style-type: none"> <li>• support_[A-Za-z0-9._%+~]*@company\.com</li> <li>• support_.*@company\.com</li> </ul>
Sender	<p>Emails that are sent by an Oracle employee:</p> <ul style="list-style-type: none"> <li>• [A-Za-z0-9._%+~]*@oracle\.com</li> <li>• .*@oracle\.com</li> </ul>
Subject	<p>Email subjects with string AutoReply:</p> <ul style="list-style-type: none"> <li>• ^Auto Reply: [A-Za-z0-9._%+~]*</li> <li>• ^Auto Reply.*</li> </ul>

## How do I configure profile options for inbound and outbound email?

You can set options for incoming and outgoing emails by configuring email profile options. For example: In the SVC\_OUTBOUND\_EMAIL\_FROM profile option, you can set the From email ID that you use to respond to a customer's email.

Configure the inbound email profile options as specified in the following table.

Inbound Profile Options	Description
SVC_ENABLE_INBOUND_EMAIL_DEFAULT_PROCESSING	Indicates whether inbound emails from customers must be processed automatically by creating or updating an SR. If this option is disabled, only the inbound message object is created, without creating an SR.
SVC_INBOUND_EMAIL_ADDRESSES	Indicates the inbound email IDs that are monitored by the Service application. The email IDs are separated by a comma and are automatically populated during provisioning. You must use the address to set a forwarding rule.

Inbound Profile Options	Description
	<p>Try to avoid updating these inbound email addresses. If you update these inbound email addresses for some reason, you must complete the following steps:</p> <ul style="list-style-type: none"> <li>Update the corresponding forwarding rule.</li> <li>Ensure that you register the updated inbound email addresses as access points for inbound email.</li> </ul>
SVC_INBOUND_ENABLE_INLINE_ATTACHMENTS	<p>Enables the display of images inline within the SR messages in the UI.</p> <p>The default value is Yes.</p>
SVC_INBOUND_EMAIL_MAX_ATTACH_SIZE	<p>Indicates the maximum size in MB of attachments that are permitted in an inbound email.</p> <p>The default value is 10 MB.</p> <p>Here are some key points to note:</p> <ul style="list-style-type: none"> <li>The recommended maximum limit for the email size is 15 MB. Email size includes email headers, attachments, and the email content.</li> </ul> <p><b>Note:</b> You can increase the size of the attachments past 15 MB, but this isn't recommended as it may cause server issues</p> <ul style="list-style-type: none"> <li>If an email contains non-text content or attachments, that gets base64 encoded, and this can increase the overall size of the email. So when your users send emails that exceed a total size of 15 MB, such emails aren't processed by the server.</li> </ul>
SVC_INBOUND_MESSAGE_BATCH_SIZE	<p>Indicates the number of emails that can be processed at a given time. This is the maximum number of emails retrieved by every run of the Retrieve Inbound Email Messages scheduled process.</p> <p>The default value is 10.</p>
SVC_EMAIL_PROCESS_UNKNOWN_CUST	<p>Indicates whether an SR must be created for emails sent by unknown customers.</p>
SVC_ENABLE_INBOUND_EMAIL_ACKNOWLEDGEMENT	<p>Indicates whether an acknowledgment must be sent for an incoming email.</p> <p>If you prefer not to have emails sent when SRs are created, disable this profile option.</p> <p>To disable it, use the Manage Administrator Profile Values task in Setup and Maintenance. Search for the SVC_ENABLE_INBOUND_EMAIL_ACKNOWLEDGEMENT profile option, and then set the profile value to <b>No</b>.</p>
SVC_INBOUND_ACK_EMAIL_LIMIT_PER_USER	<p>Specifies the maximum number of emails to be sent to one user within a specific time interval. This time interval is specified in the SVC_INBOUND_ACK_EMAIL_TIME_INTERVAL profile option.</p> <p>The default value is 3.</p> <p><b>Note:</b> Let's say you don't want to use this feature, and you want to send an acknowledgment email for every email received from a user. In that case, you can set this profile option to a high value such as 100. It's a good idea to simultaneously set the SVC_INBOUND_ACK_EMAIL_TIME_INTERVAL profile option to a low value such as 5 minutes.</p> <p>This profile option also helps to prevent the creation of infinite email loops.</p>

Inbound Profile Options	Description
SVC_INBOUND_ACK_EMAIL_TIME_INTERVAL	<p>Specifies the time interval for which the limit check is applied for the maximum number of emails to be sent to a user.</p> <p>This means that only the maximum number of emails specified in the SVC_INBOUND_ACK_EMAIL_LIMIT_PER_USER profile option can be sent to one user in this time interval.</p> <p>The default value is 60 minutes.</p> <p><b>Note:</b> Let's say you don't want to use this feature, and you want to send an acknowledgment email for every email received from a user. In that case, you can set this profile option to a low value such as 5 minutes. It's a good idea to simultaneously set the SVC_INBOUND_ACK_EMAIL_LIMIT_PER_USER profile option to a high value such as 100.</p> <p>This profile option also helps to prevent the creation of infinite email loops.</p>
SVC_INBOUND_EMAIL_PATTERN_TO_STOP_ACK	<p>Specifies the email patterns that must be blocked, so that the application stops sending acknowledgment emails to email addresses having those patterns. The default email pattern is <code>postmaster@.*.oraclecloud.com</code>.</p>
ORA_SVC_ENABLE_FAILED_INBOUND_MESSAGE_PROCESSING	<p>Enables the automatic processing of inbound messages that weren't processed earlier because of internal issues.</p> <p>The default value is Yes.</p> <p>To stop the retrieval of unprocessed messages at any time, you can set the value to No.</p>
ORA_SVC_ADD_FIRST_ATTACHMENT_TO_SR_MESSAGE	<p>Enables the agents to see the images or attachments from the first email received on an SR in both the SR header and the SR message.</p> <p>The default value is No.</p>
ORA_SVC_ENABLE_INBOUND_INLINE_ATTACHMENT_CATEGORY	<p>Enables viewing of images and logos inline within the body of the SR message, but the inline images aren't captured as regular SR attachments. The default value is No.</p> <p>When it's set to Yes:</p> <ul style="list-style-type: none"> <li>Documents received as attachments to inbound emails are included in the SR attachments.</li> <li>Images such as logos in the sender's signature and inline images aren't included in the SR attachments.</li> </ul> <p><b>Note:</b> When you set this value to Yes, the ORA_SVC_ADD_FIRST_ATTACHMENT_TO_SR_MESSAGE profile option is automatically set to Yes.</p>
ORA_SVC_INBOUND_MSG_LAST_REPROCESSING_DAYS	<p>Specifies the number of days previous to the current date since when the failed inbound messages are to be reprocessed.</p> <p>The default value is 1.</p>
ORA_SVC_ENABLE_INBOUND_PARTIAL_STATUSES_FOR_REPROCESSING	<p>Enables the reprocessing of unprocessed inbound emails from the past.</p>

Inbound Profile Options	Description
	<p>The default value is No.</p> <p>When it's enabled, reprocessing starts from the last point where the processing stopped earlier.</p>
ORA_SVC_ADD_EMAIL_RECIPIENTS_TO_SR	<p>Enables you to choose whether to add the sender and recipients of inbound emails as an SR contact or SR team member. For a new SR, the recipients in the To or Cc lists are added as SR contacts or SR team members, if their email IDs exist as valid party records in the application. For a reply email to an existing SR, the sender and the contacts or team members in the To or Cc lists are added as SR contacts or SR team members if they don't already exist in the SR.</p> <p>The default value is Yes.</p> <p>When you set the value to No, the sender and recipients of inbound emails aren't added to the SR.</p> <p><b>Note:</b> The sender of the first email is always added as the primary contact on the SR, irrespective of the value of this profile option.</p>
ORA_SVC_UNREGISTER_INBOUND_ACCESS_POINT	<p>Specifies whether to make the <b>Unregister</b> button available. The default value is No. When it's set to the default value, the <b>Unregister</b> button isn't available. This setting helps to prevent unregistering of access points accidentally.</p> <p>Only when you specifically need to unregister an access point, you can change the value to Yes so that the <b>Unregister</b> button is available. After unregistering the access point, you can set the value of this profile option back to No.</p>
ORA_SVC_INBOUND_REPROCESSING_OFFSET_IN_MINUTES	<p>Used to reprocess inbound emails when it fails to create customer message on the SR. The default value of this profile option is set to 120 (2 hours). After this duration, the reprocessing logic will attempt to create customer message again on the SR.</p>
SVC_INBOUND_EMAIL_REGEX_TO_EXTRACT_SR_NUMBER	<p>Used to create and send a new message for an existing SR.</p> <p><b>Note:</b> If the default value is not able to extract the SR number from the inbound email body, then try adding an additional # to the default value.</p>
ORA_SVC_INBOUND_MSG_EXCHANGE_ONLINE_BATCH_SIZE	<p>Specify the maximum number of inbound messages to read from Microsoft Exchange online in one ESS Job iteration.</p> <p>The default value is 10</p> <p>The maximum value is: 200</p>
ORA_SVC_INBOUND_MSG_EXCHANGE_ONLINE_FETCH_SIZE_PER_BATCH	<p>Specify the maximum number of inbound messages to be processed from Microsoft Exchange online in one subset of a batch.</p> <p>The default value is 10</p> <p>The maximum value is: 20</p>
ORA_SVC_INBOUND_MSG_EXCHANGE_ONLINE_DELETE_SIZE	<p>Specify the maximum number of inbound messages to be deleted from Microsoft Exchange online in one subset of a batch.</p> <p>The default value is 10</p> <p>The maximum value is: 20</p>

Configure the outbound profile options for Service as specified in the following table.

Outbound Profile Options	Description
SVC_OUTBOUND_EMAIL_FROM	<p>Indicates the From email that's used for sending outbound emails to customers. The default value is <code>noreply@oracle.com</code>. You must set the value to the no reply address for your company to prevent auto-replies from creating unintended SRs.</p> <p>This profile option can have the no reply email address with or without the display name. Example without display name: <code>noreply@mycompanydomain.com</code>. Example with display name: Acme Support <code>&lt;noreply@mycompanydomain.com&gt;</code>. If the profile option value doesn't contain a display name, the display name of the email channel is used in the From address.</p> <p>Let's say you set the value of this profile option as your support email ID such as <code>support@mycompanydomain.com</code>. If your From email address isn't displayed in your email received by your customer, then you would receive a verification email at <code>support@mycompanydomain.com</code>. You must follow the instructions in that email to verify the account. If you don't have access to the inbox for <code>support@mycompanydomain.com</code>, then you must do one of the following:</p> <ul style="list-style-type: none"> <li>• Contact Oracle support to get your email account verified.</li> <li>• Set the value of this profile option to another valid email address that you can access. Now when you send your first email to a customer, you receive a verification email. You must click the confirmation link in the email to complete the verification.</li> </ul>
SVC_SR_FORWARD_TEMPLATE_NAME	Indicates the email template name for SR messages of type Forward.
SVC_SR_RESPONSE_TEMPLATE_NAME	Indicates the email template name for SR messages of type Response.
SVC_SR_SYSTEM_RESPONSE_TEMPLATE_NAME	Indicates the template name for SR messages of type System Response.
ORA_SVC_SR_EMAIL_ATT_SIZE	<p>Indicates the maximum permitted total size in MB of all the attachments in an outbound email that's sent from the Service application. Oracle recommends keeping this value less than or equal to 10 MB.</p> <p>The default value is 10 MB.</p> <p>Here are some key points to note:</p> <ul style="list-style-type: none"> <li>• The maximum limit for the email size is 15 MB. Emails greater than 15 MB in size aren't processed by the email server. Email size includes email headers, attachments, and the email content. If an email contains non-text content or attachments, that gets base64 encoded, and this can increase the overall size of the email.</li> <li>• Use this profile option to restrict the email attachment size such that the total email size doesn't exceed 15 MB.</li> </ul>
SVC_ENABLE_ACKNOWLEDGMENT_TO_ALL	Indicates whether an acknowledgment must be sent to users both in the To and Cc lists for every inbound email that's received.
SVC_ENABLE_DEEPLINKS_IN_OUTBOUND_EMAIL	Indicates whether the deep links to KM articles are enabled in outbound emails and email previews. When the deep links are enabled, this helps to translate and populate the complete URL to view the articles.
ORA_SVC_ENABLE_RESOURCE_NAME_USAGE_IN_OUTBOUND	Enables the use of the resource name as the sender name in outbound emails. The default value is No.
ORA_SVC_ENABLE_RESOURCE_EMAIL_USAGE_IN_OUTBOUND	Enables the use of the resource email as the sender email in outbound emails. The default value is No.

Outbound Profile Options	Description
ORA_SVC_ENABLE_INLINE_ATTACHMENTS_IN_OUTBOUND_EMAIL	This profile option only impacts inline attachments, not regular attachments.

To configure email profile options:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Inbound Email Profile Options, or Manage Outbound Email Profile Options
2. Click the name of the profile option to be set.
3. In the **Manage Email Profile Options** page, in the **Profile Values** section, click the plus icon to add a value.
4. Click **Save**.

**Note:** Alternatively, you can click the **Manage Email Profile Options** task to display the Email Profile Options page. On this page, you can view the list of all inbound and outbound email profile options and set their values. You can also search for a specific profile option code using the search bar.

## Enable the Ability to Add All Contacts and Team Members or Additional Email Recipients

Sometimes while composing an email, an agent may want to add additional email recipients who aren't contacts or resources (team members), or an agent may want to add all the contacts and team members of the service request.

For these options to be available to them, you must enable the SVC\_ENABLE\_ADDITIONAL\_EMAIL\_RECIPIENTS profile option. The default value of this profile option is No.

To enable the SVC\_ENABLE\_ADDITIONAL\_EMAIL\_RECIPIENTS profile option:

1. Sign in as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area.
3. Open the Tasks panel tab and click **Search**.
4. Search for and select the **Manage Administrator Profile Values** task.
5. On the Manage Administrator Profile Values page, navigate to the Search region.
6. In the **Profile Option Code** field, type `SVC_ENABLE_ADDITIONAL_EMAIL_RECIPIENTS`.
7. Click **Search**.

The SVC\_ENABLE\_ADDITIONAL\_EMAIL\_RECIPIENTS profile option is displayed in the Search Results: Profile Options region.

8. In the Profile Option Levels region, set the **Profile Value** for the Site **Profile Level** as **Yes**.
9. Click **Save**.

## How do I set the From Name in outbound emails?

When you send emails to your customers, the **From Name** in the outbound email is typically the channel name. But you have the option to set the resource name as the **From Name** in outbound emails.

You can do this by configuring the **ORA\_SVC\_ENABLE\_RESOURCE\_NAME\_USAGE\_IN\_OUTBOUND** profile option.

To set the service agent's name as the From name in emails sent to your customers:

1. Ensure that you have configured the SPF policy to enable outbound email so that your emails aren't rejected by your customer's mail server.
2. Sign in as a setup user or administrator.
3. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
4. Click **Search** from the list of displayed tasks.
5. Search for and click **Manage Administrator Profile Values**.
6. On the Manage Administrator Profile Values page, navigate to the Search region.
7. In the **Profile Option Code** field, type `ORA_SVC_ENABLE_RESOURCE_NAME_USAGE_IN_OUTBOUND`.
8. Click **Search**.  
  
The `ORA_SVC_ENABLE_RESOURCE_NAME_USAGE_IN_OUTBOUND` profile option is displayed in the Search Results: Profile Options region.
9. In the Profile Option Levels region, set the **Profile Value** for the Site **Profile Level** as **Yes**.
10. Click **Save and Close**.

## How do I define email templates?

You can create email templates for the Forward, Response, and System Response messages of a service request (SR).

You can create templates using HTML to send email notifications for an SR using Application Composer.

To define an email template:

1. Sign in to the application as an administrator.
2. Navigate to Application Composer.
3. In the **Application** field, select **CRM Cloud** from the drop-down list.
4. In the **Common Setup** region, click **Email Templates**.
5. On the Email Templates page, click the plus icon to create a new template.
6. In the **Object** field, select **Service Request** from the drop-down list.
7. Specify a name for the template.
8. (Optional) Specify a description.
9. To add any attachments, click the plus icon, browse to the file location, and select the file.
10. A template is active by default. To disable the template, clear the **Active** option.
11. Specify the email subject.

You can use SR field names in the subject. For example, the subject can be `Resolved issue [{Title$}]`.

12. Edit the message HTML as required. Add the `#MessageContent#` tag anywhere in the HTML code. This tag is replaced by the SR message content.

13. (Optional) To enable the display of the email thread, insert the `#PastConversation#` tag in the template.

Add this tag within the email body at the place where you want to insert the previous messages from the email thread. When an agent replies to a customer from the Messages tab in an SR, the email thread is displayed.

14. In email templates that are meant for forwarding to internal users, you can include a link to the SR within the template. Include the link in the following format:

```
<Link to company's Fusion Service site>/service/faces/FuseOverview?  
fndGlobalItemId=itemNode_service_service_requests&pSrNumber=<SR Number>.
```

For example, `https://company123.mycompanydomain.com:10616/service/faces/FuseOverview?  
fndGlobalItemId=itemNode_service_service_requests&pSrNumber=SR0000029093.`

15. Click **Save and Close**.

**Note:** When an SR is created, it may be with or without a queue. So it's possible that an email notification is sent before the SR is assigned to a queue. If you want to avoid a blank field value in the email notification, you must not use the **Queue Name** field in your email template.

## Modify Acknowledgment Messages for Inbound Email

When you receive an email from your customer or employee to open a service request, an acknowledgment message is sent to them automatically. Based on your company's requirement, you can modify the predefined acknowledgment messages provided by the application.

**Note:** You can't add new tokens to these messages. Only the predefined tokens are used in these messages.

For CRM, the following predefined messages are provided:

- SVC\_EMAIL\_ACK\_FOR\_KNOWN\_CUST
- SVC\_EMAIL\_ACK\_FOR\_MULTI\_CUST
- SVC\_EMAIL\_ACK\_FOR\_UNKOWN\_CUST

To modify the acknowledgment messages that you send out to your customers or employees when you receive an inbound email:

1. In the Setup and Maintenance work area, go to the **Tasks** panel tab.
2. Click **Search** from the list of displayed tasks.
3. In the **Search** window, enter Manage Messages.
4. Click the **Manage Messages** task that's displayed.
5. In the **Manage Messages** window, in the **Message Name** field, enter `%SVC%ACK%`.
6. From the list of acknowledgment messages displayed, select the message that you want to edit and click **Edit**.
7. In the **Edit Message** window, navigate to the **Message Text** region.
8. Edit the **Short Text** and **User Details** the way you want.
9. Click **Save**.
10. To translate the modified messages, click **Translation Editor**.

The **Edit Translations** window displays the list of available languages for translating the messages.

**Note:** Inbound email can't detect the language. So it always uses the default language for your deployment.

11. Select a row and click in the **Short Text** field.
12. In the **Short Text** window, edit the message and click **OK**.
13. Click in the **User Details** field, edit the text, and click **OK**.
14. Select another row and repeat the same steps to edit the messages for all the available languages.
15. Click **OK** in the **Edit Translations** window to save the changes.
16. Click **Save and Close** in the **Manage Messages** window.

## Decide Whether to Add Email Recipients as Service Request Contacts or Team Members

You can decide whether the recipients of an inbound email must be added as service request (SR) contacts or SR team members.

The sender of the first email is always added as the primary contact on the SR. For the follow-up emails, you can choose not to add the sender of the email as an SR contact or SR team member. You can do this by configuring the `ORA_SVC_ADD_EMAIL_RECIPIENTS_TO_SR` profile option.

When you set this profile option to No, the sender of the follow-up emails isn't added to the SR.

**Note:** The sender of the first email is always added to the SR, irrespective of the value of this profile option.

1. Sign in as an administrator.
2. Navigate to the **Setup and Maintenance** work area.
3. Open the **Tasks** panel tab and click **Search**.
4. Search for and select the **Manage Administrator Profile Values** task.
5. On the Manage Administrator Profile Values page, navigate to the Search region.
6. In the **Profile Option Code** field, type `ORA_SVC_ADD_EMAIL_RECIPIENTS_TO_SR`.
7. Click **Search**.

The `ORA_SVC_ADD_EMAIL_RECIPIENTS_TO_SR` profile option is displayed in the Search Results: Profile Options region.

8. In the Profile Option Levels region, set the **Profile Value** for the Site **Profile Level** as **No**.
9. Click **Save**.

## How do I enable deep links to KM articles in outbound emails?

When your service agents reply to customers by email, they may sometimes need to add links to Knowledge Management (KM) articles or other related service requests (SRs). These articles can help resolve the issue faced by the customers in that SR, or they can provide additional information.

These internal links to KM articles work in the SR Messages tab. But for these internal links to work in emails sent to customers, they must be translated to external links that open on the customer service application.

Your customers typically have access to one or more customer service applications. These customer service applications provide them access to their SRs and relevant knowledge articles through a web interface. They may use multiple customer service applications for various reasons. For example, customers often use different customer service applications for different business units (BUs).

Here's what you need to do to convert the internal links to external links that open in the customer service application:

- Enable the SVC\_ENABLE\_DEEPLINKS\_IN\_OUTBOUND\_EMAIL profile option.
- Use the Manage Service Request Dynamic Links task to configure the **External URL** field, as described in the following table.

This table shows how the links work, depending on how the agent links to the article.

Type of link created to the KM article	What to append to the external URL to make the link work	How the link works
<p>Article link format:</p> <p>When the agent uses either the "Insert as link" in RHP or the "Insert Knowledge" button KM application.</p>	<p>?</p> <p><code>kmContentId={0}&amp;page=shell&amp;shell=knowl article</code></p>	<p>The parameter {0} is replaced by the internal document ID of the selected KM article, and a clickable link to the article is inserted in the email message. The title of the KM article is used as the label for the link.</p> <p>The article opens in the customer service application in a separate nested tab.</p>
<p>Knowledge article format:</p> <p>When the agent composes a message and provides a reference to a KM article. For example, if the agent types in the text FAQ1234, this text is linked in the email message.</p>	<p>?</p> <p><code>kmExternalId={0}&amp;page=shell&amp;shell=kn article</code></p>	<p>The parameter {0} is replaced by the internal document ID of the selected KM article. The article is linked by using the typed text as the label for the link. Example of typed text: FAQ1234.</p> <p>The article opens in the customer service application in a separate nested tab.</p>

**Note:** The deep links don't work if they contain the # character. Also, special characters such as @, ^, and \* can be used only if preceded with the backslash character \. For example, you must use \\* instead of \* in your regular expression. For more information about using special characters in regular expressions, see the open source documentation for regular expressions. After you modify the regular expression, remember to use a validator to ensure that it's still working.

To enable deep links to KM articles in outbound emails and email previews to open in the customer service application:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Productivity Tools
  - Task: Manage Service Request Dynamic Links

**Note:** Optionally, you can search for the Manage Service Request Dynamic Links task from the Tasks panel tab in the Setup and Maintenance work area.

2. On the Manage Dynamic Links page, repeat steps 3 to 12 for each of the business units (BUs) for your deployment.  
That's because you may have different customer service applications for different BUs. If you have only a single BU, you need to do the steps only once.
3. Select the row that has **ARTICLE\_LINK** in the **Object Type** field.
4. Click **Add** to add a row.
5. From the **Business Unit Name** drop-down list, select a BU.
6. In the **External URL** field, do the following:
  - a. Enter the external URL provided to you.
  - b. Append the following string at the end, after the slash: `?kmContentId={0}&page=shell&shell=knowledge-article`  
This string is explained in the first row of the table.  
Example of how the final URL looks: `https://myvbinstance.builder.ocp.oc.com/ic/builder/rt/KMEXTID297/1.0/webApps/dcs/?kmContentId={0}&page=shell&shell=knowledge-article`
7. Click **Save**.
8. Select the row that has **KNOWLEDGE\_ARTICLE** in the **Object Type** field.
9. Click **Add** to add a row.
10. From the **Business Unit Name** drop-down list, select the same BU as in step 5.
11. In the **External URL** field, do the following:
  - a. Enter the external URL provided to you.
  - b. Append the following string at the end, after the slash: `?kmExternalId={0}&page=shell&shell=knowledge-article`  
This string is explained in the second row of the table.  
Example of how the final URL looks: `https://myvbinstance.builder.ocp.oc.com/ic/builder/rt/KMEXTID297/1.0/webApps/dcs/?kmExternalId={0}&page=shell&shell=knowledge-article`
12. Click **Save**.

## Add Deep Links to Third Party Applications from Service Request Messages

You can add custom object types and provide dynamic links to third party applications within the service request message content. The user can drill down directly from dynamic links in a service request message into specific records in non-Fusion applications.

You can define regular expression patterns that convert to a URL link, when the user types text matching that pattern. For example, when a user types text matching the pattern for a service request reference, the text in the SR message is automatically converted into a link to that SR. This means that a user can, for example, type in **FAQ123**, **SR123**, or **Bug123**, and if the pattern matches, it creates a link in the SR message, to the corresponding FAQ knowledge article, SR, or bug tracking application.

Here's how you configure the third party link for custom objects:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Productivity Tools

- o Task: Manage Service Request Dynamic Links

2. On the Manage Dynamic Links page, click **Add**.

The **Add** dialog box is displayed.

3. In the **Object Type** field, enter a name for the custom object (for the third party application) you want to create.
4. To automatically generate dynamic link patterns for links that point to the third party application, select the **Generate pattern** check box.

Use this option in case you aren't sure how to reference an object. You can't edit this pattern.

5. Click **OK**.
6. Select the custom object row you added, and click **Add**.
7. From the **Business Unit Name** drop-down list, select a BU.
8. In the **External URL** field, enter the URL that's needed to deep link on the selected custom object.

The external URL should also contain {1}, which is the parameter that's replaced with the text or number adhering to the pattern.

For example, if you add a pattern such as (?i) \b(txt) ([0-9]{3}) \b that opens in a URL such as <a target="\_blank" href="https://abc.com/edit\_info?rpt=txt123">https://abc.com/edit\_info?rpt=txt123</a>, then the external URL should be <a target="\_blank" href="https://abc.com/edit\_info?rpt=">https://abc.com/edit\_info?rpt=</a>{1}

9. In the **Internal URL** field, enter the internal URL for the third party application (for the selected custom object).
10. Click **Save**.

**Note:** To delete a custom object type, click **Delete** (the X icon) for the corresponding row. You can't delete the ready to use object types such as service request, article link, and knowledge article.

Here's some more examples that show how to configure other deep links:

- SRs:
  - o Pattern: (?i) \b(SR) ([0-9]{10}) \b
  - o External URL: https://<fusion application URL>/deeplink?objType=SVC\_SERVICE\_REQUEST&objKey=srNumber%3D{0}&action=EDIT\_IN\_TAB
  - o Internal URL: Not applicable
- HR Help Desk articles:
  - o Knowledge\_Article (for example, HFAQ123): https://<fusion application URL>/deeplink?objType=CSO\_ARTICLE\_CONTENT\_HCM&objKey=docId%3D{0}%3Blocale%3D{1}&action=EDIT\_IN\_TAB
  - o Article\_Link (for example, HFAQ123): https://<fusion application URL>/deeplink?objType=CSO\_ARTICLE\_CONTENT\_HCM&objKey=articleId%3D{0}%3Blocale%3D{1}&action=EDIT\_IN\_TAB

## Access Point Setup for Inbound Emails

### Overview of Access Point Setup for Inbound Emails

When your customers send emails to your support channel, the User Messaging Service (UMS) reads those emails from your inbox and delivers them to registered access points.

Access points are registered clients that are authorized to read emails from your inbox. The application then reads those emails from the access points.

For inbound email to be processed successfully, it's important to register the correct access points with the UMS. You can use the Access Point Setup region of the Inbound Email Configuration and Validation page to register access points. When you register an access point, emails are permitted to be processed further. For example, to create a service request. When you unregister an access point, further processing of emails is stopped, and the emails in your inbox are also lost without being processed.

#### Related Topics

- [How do I validate my inbound and outbound email setup?](#)
- [How do I configure an email channel?](#)

## How do I validate my inbound and outbound email setup?

You can verify your inbound and outbound email configurations by using the Inbound Email Configuration and Validation page.

On this page, you can proactively take corrective actions to fix any wrong or missing configuration. The validations on this page save you the trouble of raising a support ticket or checking the logs.

Use the Inbound Email Configuration and Validation page to do the following validations:

- Inbound email channel profile options
- Channel setup
- Access points for inbound email
- Outbound email flow
- Inbound email flow

To verify your email channel configurations:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Communication Channels
  - Task: Manage Email Configuration, Registration, and Validation

The Inbound Email Configuration and Validation page is displayed.

2. In the Email Configuration region, click **Validate**.

The following validations happen in this region:

- **Channel Setup:** Checks whether you have done the following:
  - Configured at least one non-seeded channel.
  - Specified a Business Unit for every channel.
- **Profile Option:** Reads the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option for email addresses and displays an error message if email addresses aren't defined.
- **Access Point Setup:** Checks whether the access points are registered appropriately. It's important to register the correct access points.

For each setup or configuration that's valid, a tick mark is displayed.

If the configuration is invalid or the setup isn't done correctly, a cross mark is displayed. A suitable message is displayed, describing the corrective action that you must take.

3. In the Email Flow region, in the **Recipient** field, enter your company's test mail ID.

The email flow for the outbound and inbound emails is validated here.

4. Click **Validate**.

The following validations happen in this region:

- o Outbound Email Validation:

An outbound email is sent to the specified email address and it's verified whether the message is delivered successfully.

- If the host, port, or password are incorrect, a suitable error message is displayed and the status is displayed as DELIVERY\_TO\_GATEWAY\_FAILURE.
- If the email is delivered successfully, the status code is displayed as DELIVERY\_TO\_GATEWAY\_SUCCESS.

- o Inbound Email Validation:

The following validations happen:

- i. Test emails are sent to all the email addresses specified in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option and the delivery status is verified for each message.
- ii. If an email address isn't registered as an access point, then you can't receive emails from that email address. The status appears as DELIVERY\_TO\_CLIENT\_FAILURE. An error message is displayed, explaining the suitable action to be taken.
- iii. For each email address specified in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option, a success or failure message is displayed along with the status.

The status is displayed as:

- o DELIVERY\_TO\_CLIENT\_SUCCESS: When the inbound email is received successfully by the access point.
- o DELIVERY\_TO\_CLIENT\_PENDING: When the message is received but not yet processed. You must verify whether the inbound poll job is scheduled.
- o DELIVERY\_TO\_CLIENT\_FAILURE: When the access point isn't registered.

5. Click **Reset** to clear the **Recipient** field and all the messages related to the recipient.

## How do I register or unregister access points for inbound email?

For your inbound emails to be processed successfully, you must register the email addresses in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option as access points. If your inbound email address changes for some reason, then you must register the new inbound email address as an access point.

Sometimes, you may have to unregister a wrong email address that was registered by mistake. The **ORA\_SVC\_UNREGISTER\_INBOUND\_ACCESS\_POINT** profile option controls the ability to unregister access points. Its default value is No. When it's set to the default value, the Unregister button for an access point isn't available. This setting helps to prevent unregistering of access points accidentally. Only when you specifically need to unregister an

access point, you can change the value to Yes so that the **Unregister** button is available. After unregistering the access point, you can set the value of this profile option back to No.

**CAUTION:** When you register or unregister access points, they don't reflect in all the server instances, and some inbound emails may not be received. To prevent this from happening, you can do one of the following:

- Restart the servers to reflect the registering or unregistering of access points. You must contact Oracle Support for restarting the servers.
- Configure the **Retrieve Inbound E-mail Messages** job to run at a suitable frequency. Refer to *How do I configure a job to process inbound emails?*

To register the access points for inbound email:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Communication Channels
  - Task: Manage Email Configuration, Registration, and Validation
2. On the Inbound Email Configuration and Validation page, in the Email Configuration region, click **Validate**.

The access point setup is validated in this region.

The following email addresses are displayed in the **Access Point Value** column of the Access Point Setup region:

- Email addresses specified in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option.  
Suppose one or more of these email addresses aren't registered as an access point with the UMS. In such cases, a **Register** button appears in the **Action** column for these email addresses.
- Email addresses that are registered as access points in the UMS.

All email addresses that are registered as access points with the UMS are displayed in this section. An **Unregister** button appears in the **Action** column for each email address.

**Note:** Don't click **Register** and **Unregister** at this stage. You must complete the remaining steps.

3. Verify whether the email addresses specified in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option are correct.
4. If the email addresses in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option aren't correct, update them to show the correct values.
5. Refresh the Inbound Email Validation and Configuration page.
6. If you still see a **Register** button, click the button to register the email address with the UMS.
7. If you still see an **Unregister** button, click the button, because the email address is wrong.

The wrong email address is unregistered, and is no longer an access point with the UMS.

**Note:**

- When you unregister an email address, all inbound emails to that email address are lost.
- If the **Unregister** button appears grayed out and you can't click it, set the `ORA_SVC_UNREGISTER_INBOUND_ACCESS_POINT` profile option to Yes as explained earlier in this topic. Now you can click the **Unregister** button.

## Overview of Times Displayed for the Access Points

This table describes the meaning of the different times displayed for each email address.

Column Name	Description
Last Read Time	<p>When a time is displayed in this column, and the other two columns are blank, this indicates the following:</p> <p>An email address is configured with the UMS server, but the access point isn't registered. So, the UMS reads the email from the inbox but isn't able to deliver it to the access point, because an access point doesn't exist.</p> <p>Maps to the <code>DELIVERY_TO_CLIENT_FAILURE</code> status of the UMS server.</p>
Last Successful Read Time	<p>When the Last Successful Process Time is blank, this indicates that the access point is registered, but the scheduled inbound poll job hasn't run.</p> <p>The UMS reads the email from the inbox and delivers it to the access point, but the scheduled job hasn't run.</p> <p>Maps to the <code>DELIVERY_TO_CLIENT_PENDING</code> status of the UMS server.</p>
Last Successful Process Time	<p>Indicates the last time when the email was read by the scheduled inbound poll job.</p> <p>Maps to the <code>DELIVERY_TO_CLIENT_SUCCESS</code> status of the UMS server.</p>

## How You Interpret the Times Displayed for the Access Points

This table shows some examples of times displayed for each sample email address in the Access Point Setup region.

No.	Access Point	Last Read Time	Last Successful Read Time	Last Successful Process Time
1.	<code>inbound_email11@oracle.com</code>	7/17/2018 3:00 a.m.	7/17/2018 3:06 a.m.	7/17/2018 3:06 a.m.

No.	Access Point	Last Read Time	Last Successful Read Time	Last Successful Process Time
2.	<code>inbound_email12@oracle.com</code>	7/19/2018 7:30 a.m.		
3.	<code>inbound_email13@oracle.com</code>	7/19/2018 7:36 a.m.	7/18/2018 7:36 a.m.	7/18/2018 7:36 a.m.
4.	<code>inbound_email14@oracle.com</code>	7/19/2018 7:36 a.m.	7/19/2018 7:36 a.m.	
5.	<code>inbound_email15@oracle.com</code>			

Here's how you interpret the above examples of times displayed for the access points in the Access Point Setup region:

Possible scenarios	What this means	What you need to do
<p><code>inbound_email11@oracle.com</code> in the previous table:</p> <ul style="list-style-type: none"> <li>Last Read Time has a value.</li> <li>Last Successful Read Time has a value.</li> <li>Last Successful Process Time has a value.</li> <li>One of the following conditions is satisfied:                             <ul style="list-style-type: none"> <li>All the values are synchronized.</li> <li>The Last Successful Read Time and Last Successful process time values aren't earlier than the Last Read Time.</li> </ul> </li> </ul>	<p>The process works correctly without any issues.</p>	<p>You don't need to do anything.</p>
<p><code>inbound_email12@oracle.com</code> and <code>inbound_email13@oracle.com</code> in the previous table:</p> <p>One of the following conditions is satisfied:</p> <ul style="list-style-type: none"> <li>Last Read Time is later than the Last Successful Read Time.</li> <li>Last Read Time has a value, but Last Successful Read Time and Last Successful Process Time are blank.</li> </ul>	<p>An email is read by the UMS server, but the email isn't delivered to the access point.</p> <p><b>Note:</b> After you register the access point, emails are successfully delivered to the access point.</p>	<p>Do the following:</p> <ol style="list-style-type: none"> <li>Starting from the Last Successful Process Time, verify till the current time and see if any Last Successful Read Time exists.                             <ul style="list-style-type: none"> <li>For <code>inbound_email12@oracle.com</code>, starting from about 30 to 40 hours earlier than the Last Read Time, verify whether anything is wrong with respect to the access point. For example, the initial setup may be wrong.</li> <li>For <code>inbound_email13@oracle.com</code>, a Last Successful Read Time is displayed, and it's later than the Last Successful Process Time. This implies that a mail has been read recently, but hasn't been processed successfully.</li> </ul> </li> </ol>

Possible scenarios	What this means	What you need to do
		<ol style="list-style-type: none"> <li>See if any records have the DELIVERY_TO_CLIENT_FAILURE or DELIVERY_TO_CLIENT_PENDING status. For more information about searching for records, see "Troubleshoot Access Point Issues".</li> <li>Register the access point.</li> </ol>
<p><code>inbound_email4@oracle.com</code> in the previous table:</p> <p>Last Successful Process Time is blank.</p>	The scheduled inbound poll job has never received an email.	<p>Do the following:</p> <ol style="list-style-type: none"> <li>Check whether the inbound poll job called Retrieve Inbound Email Messages is scheduled or if an error is occurring.</li> <li>If the job isn't scheduled, then schedule a new job by going to Scheduled Processes from the menu in the application.</li> </ol>
<p><code>inbound_email5@oracle.com</code> in the previous table:</p> <p>All the columns are blank.</p>	The UMS is unable to read emails from your inbox either because the UMS setup isn't done or the UMS configuration is wrong.	<p>Do the following:</p> <ol style="list-style-type: none"> <li>Verify whether the UMS setup is completed. Complete the setup if required.</li> <li>Verify whether the UMS configuration is correct. Correct the configuration if required.</li> </ol>

## Summary of Tips to Interpret the Times Displayed for Access Points

Here's a brief summary of tips to interpret the different times displayed for each access point and the status of the records in the UMS:

How the Times Are Displayed for an Access Point	What this indicates
<p>One of the following conditions is true:</p> <ul style="list-style-type: none"> <li>Only the Last Read Time has a value and the other columns are blank.</li> <li>The values in other columns are earlier than the value in Last Read Time.</li> </ul>	The access point is probably not registered and you may be losing emails.
The Last Successful Process Time is blank or earlier than the Last Successful Read time.	The emails aren't being processed by the inbound scheduled job.
The difference between the times listed in all the three columns is less.	The access point is working fine.

## Troubleshoot Access Point Issues

If some emails aren't processed for a particular access point, a particular sender, or within a time range, you can search for those specific records. The records retrieved from the UMS are sorted by date and they show the status in the UMS.

Use the search icon in the Access Point Setup region to search for specific records in the UMS based on the following: From Time, To Time, Sender, or Receiver. You can filter the retrieved records by the access points that are registered, by sender, or by receiver.

To troubleshoot access point issues:

1. On the Inbound Email Configuration and Validation page, navigate to the Access Point Setup region.
2. Click the **Search** icon.
3. Depending on your requirement, enter the details in one or more of the following fields in the **Search Message** window: **From Time**, **To Time**, **Sender**, and **Receiver**.
4. Click **Search**.

The Search Results are displayed. The records are sorted in the descending order of time, with the latest ones on top. The following details are displayed for each record that is retrieved:

- o Message ID
  - o Recipient
  - o Date
  - o Status
5. View the details and take suitable action.

## Example of a Scenario Where Inbound Email Fails

This is an example of a case where inbound email may fail.

Let's say that your support mailbox is support@mycompanydomain.com and you have set up a forwarding rule. When your customer sends an email to support@mycompanydomain.com, the mail is forwarded to mycompanydomain.extservice@oraclecloud.com. The email address mycompanydomain.extservice@oraclecloud.com is registered as an access point. So, the inbound emails work fine.

However, suppose you upgrade your installation and a password error occurs after the upgrade. If someone changes the email address in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option to mycompanydomain2.extservice@oraclecloud.com, then your inbound emails stop working for the following reasons:

- The updated email address in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option isn't registered as an access point with the UMS.
- The email address in the forwarding rule doesn't match the updated email address in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option.

When the email address in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option is changed, the following changes are reflected in the Access Point Setup section of the Inbound Email Configuration and Validation page:

- For the new email address that's added to the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option, a **Register** button appears.

- For the old email address in the SVC\_INBOUND\_EMAIL\_ADDRESSES profile option, an **Unregister** button appears.

**Note:** It's important that you first correct the email addresses and refresh the Inbound Email Configuration and Validation page. And only after that, you must click **Register** and **Unregister** as required.

## Job to Process Inbound Emails

### How do I configure a job to process inbound emails?

You can configure a new job to retrieve emails at regular intervals, based on the specified frequency.

**Note:** Inbound email is an asynchronous channel. When you have a high volume of emails, the emails are queued up and processed. Inbound email processing can take anywhere from 10 minutes up to 1 hour from the time the user sends an email depending on your inbound email volume and the frequency at which you have scheduled ESS job to process inbound emails.

To configure a job to process inbound emails:

1. From the Navigator menu, select the **Scheduled Processes** option.
2. In the **Scheduled Processes** screen, click **Schedule New Process**.
3. In the **Schedule New Process** dialog box, select **Job** as the **Type**.
4. Search for and select the **Retrieve Inbound E-mail Messages** option from the **Name** drop-down list.
5. Click **OK**.
6. In the **Process Details** dialog box, click **Advanced**.
7. In the **Schedule** tab, in the **Run** options, select the **Using a schedule** option.
8. Select **Frequency** and specify a **Start Date**.

**Note:** You must ensure that you always select a frequency, whether you're using your test or your production environment. You can select a higher frequency if required. If you run a job manually without setting a frequency, the process may not retrieve all the emails. When you schedule the job to run periodically, it pulls all the emails from all the servers. After scheduling the ESS job your application may take few iterations of the job to refresh the caches that are required for the successful execution of inbound email processing. As a result, email processing may be delayed until the required caches are fully refreshed.

9. Click **Submit**.

A job is scheduled to process inbound emails.

**Note:** Inbound emails work properly only for SRs whose reference numbers have the following characters: [A-Z], [a-z], [0-9], and the special characters hyphen (-), colon (:), period (.), comma (,), or underscore (\_). So you can use only one of these characters as the prefix for an SR reference number. You can't use any other special character in the prefix apart from the ones mentioned.

# Display Email Thread in Preview and Outbound Email

## Display Email Thread of Past Conversations

When an agent responds to a customer's email from the Messages tab in a service request (SR), it's a good idea to display the email thread containing the past conversations. This way, the customer easily understands the context.

This is also useful for agents as the email thread is included when the email is previewed. Past conversations can be viewed in the thread latest replies can be written as required.

To enable the display of the email thread, you need to complete a few simple processes:

- Configure a few profile options
- Modify email templates to display the email thread

### Related Topics

- [How do I configure profile options to display email thread?](#)
- [Modify Email Templates to Display the Email Thread](#)
- [How do I define email templates?](#)

## How do I configure profile options to display email thread?

When an agent responds to a customer's email from the Messages tab in a service request, it's good to display the email thread. To enable the display of the email thread, you must configure the following profile options.

Profile Option	Description
SVC_EMAIL_ENABLE_PAST_CONVERSATIONS	Indicates whether to display past conversations. To enable past conversations, set the value to Yes.  The default value is No, so it's disabled by default.
SVC_EMAIL_NO_OF_PAST_CONVERSATIONS	Indicates the number of past conversations to be included in the email thread.  The default value is 1.  You can specify a value from 1 to 10. If you set the value to 0, no past conversations are included. And even if you set a value greater than 10, only a maximum of 10 conversations are displayed.
SVC_EMAIL_PAST_CONVERSATION_START_MARKER	Indicates the start marker for each conversation in the email thread.  This value is fixed and is displayed in English by default. To translate and display this value in the language of your choice, you must set the required locale in the ORA_SVC_EMAIL_DEFAULT_LANGUAGE profile option.

Profile Option	Description
SVC_EMAIL_PAST_CONVERSATION_END_MARKER	<p>Indicates the end marker for each conversation in the email thread.</p> <p>This value is fixed and is displayed in English by default. To translate and display this value in the language of your choice, you must set the required locale in the ORA_SVC_EMAIL_DEFAULT_LANGUAGE profile option.</p>
ORA_SVC_EMAIL_DEFAULT_LANGUAGE	<p>Indicates the default language to format outbound emails and parse inbound emails.</p> <p>The default value is blank. When it's blank, the existing values for the start and end markers are displayed for the past conversations. For details about these markers, see the preceding two rows in this table.</p> <p>You can specify the locale as a value for this profile option. For example: en for English, fr for French, and pt for Portuguese. When you specify the locale, the translated values for the following start and end conversation markers are displayed in the specified language:</p> <ul style="list-style-type: none"> <li>• SVC_EMAIL_PAST_CONVERSATION_START_MARKER: [##Send your response as a reply to the above mail##]</li> <li>• SVC_EMAIL_PAST_CONVERSATION_END_MARKER: [##End of conversation##]</li> </ul>
SVC_EMAIL_PAST_CONVERSATION_MSGTYPES	<p>Indicates the types of messages to include in the email thread. You must specify the codes for the message types, separated by commas.</p> <p>For example: ORA_SVC_INTERNAL_NOTE, ORA_SVC_RESPONSE, ORA_SVC_SYSTEM_NOTE, ORA_SVC_CUSTOMER_ENTRY, ORA_SVC_FORWARD, ORA_SVC_SYSTEM_RESPONSE. You can't specify the meaning or the display name of the message type.</p> <p>The default value is ORA_SVC_CUSTOMER_ENTRY.</p> <p><b>Note:</b> To add codes for other message types, see the "Search for Lookup Codes of Message Types" section at the end of this topic.</p>
ORA_SVC_EMAIL_PAST_CONVERSATION_SHOW_MSG_TYPES	<p>Indicates whether to include the message type in past conversations.</p> <p>The default value is Y.</p> <p>The message type is translated based on the signed-in user's locale. But the default language may be different. Let's say the signed-in agent's locale is Japanese and the default language is Chinese. So while everything gets translated to Chinese, only the message types appear in Japanese.</p> <p>If your customers reach out to you about this issue, you can set the value to No. The message type is no longer included in past conversations.</p>
ORA_SVC_EMAIL_DEFAULT_PAST_CONVERSATIONS_IN_OUTBOUND_MSGS	<p>Indicates whether to enable past conversations by default in outbound messages.</p>
ORA_SVC_EMAIL_PAST_CONVERSATION_CHAN_TYPES	<p>Includes messages from only one or more specific channels in past conversations.</p> <p>Set the value to a comma-separated list of those specific channel types that you want.</p>

To configure the profile options for displaying the email thread:

1. Navigate to the Setup and Maintenance work area and open the Tasks panel tab.

2. Click **Search** from the list of displayed tasks.
3. In the **Search** field, type `Manage Admin.`
4. From the displayed list of tasks, click **Manage Administrator Profile Values**.
5. In the Manage Administrator Profile Values page, navigate to the **Search: Profile Option** region.
6. In the Profile Option Code field, type `%`.
7. Select **%PAST\_CONVERSATION%** from the options displayed.
8. Click **Search**.

The Search Results: Profile Options region displays the list of profile options related to past conversations.

9. Select the profile options one by one.
10. In the Profile Values region, specify the values in the **Profile Value** column for the **Site** Profile Level as described in the table.
11. Repeat the previous step for each profile option in the search results.
12. Click **Save**.

## Search for Lookup Codes of Message Types

Follow these steps to search for the lookup codes of message types that you want to add in the `SVC_EMAIL_PAST_CONVERSATION_MSG_TYPES` profile option. You can use the same steps to search for the lookup codes of message types available in the Compose menu in the Messages subtab of an SR.

1. Sign in as an administrator.
2. Navigate to the Setup and Maintenance work area and open the Tasks panel tab.
3. Click **Search** from the list of displayed tasks.
4. Search for and select **Manage Standard Lookups**.
5. In the Manage Standard Lookups page, in the **Lookup Type** field, type `ORA_SVC_MESSAGE_TYPE_CD`.
6. Click **Search**.
7. From the **Lookup Code** column in the `ORA_SVC_MESSAGE_TYPE_CD: Lookup Codes` region of the page, copy the lookup codes that you want to specify in the `SVC_EMAIL_PAST_CONVERSATION_MSG_TYPES` profile option.

### Note:

- The lookup codes `ORA_SVC_CHAT_TRANSCRIPT` and `ORA_SVC_WRAP_UP` aren't applicable to emails.
- If you disable any of the following lookup codes, the corresponding message types disappear from the Compose menu on the Messages subtab of an SR: `ORA_SVC_INTERNAL_NOTE`, `ORA_SVC_RESPONSE`, `ORA_SVC_CUSTOMER_ENTRY`, and `ORA_SVC_FORWARD`.

## Modify Email Templates to Display the Email Thread

When an agent replies to a customer from the Messages tab in an SR, it's good to display the email thread. This way, the customer clearly understands the context.

For this to happen, you must insert the `#PastConversation#` tag into the email templates for SRs. This tag indicates the place within the email layout where you want to insert the previous messages from the email thread.

When the `#PastConversation#` tag is detected, the email-sending process automatically inserts the following details of previous messages from the SR:

- Type of message
- Sender
- To/Cc
- Received date and time of the message for customer entries
- Sent date and time of the message for agent responses
- Creation date and time for other messages
- Message content

When agents view an email, the email thread is included in the preview. This helps them to verify the flow and make changes as required, so the message is clearly understood.

To modify an email template to display the email thread:

1. Sign in to the application as an administrator.
2. Navigate to Application Composer.
3. In the **Application** field, select **CRM Cloud** from the drop-down list.
4. Click **Email Templates** from the Common Setup region or the Overview page.
5. From the **Object** drop-down list in the Email Templates page, select **Service Request**.
6. From the **Active** drop-down list, select **Yes**.
7. Click **Search**.
8. From the list of templates displayed, select the template that you want to modify.
9. Click **Edit**.
10. Navigate to the Email Body region of the email template.
11. Insert the `#PastConversation#` tag at the place within the email body where you want the email thread to be displayed.
12. Click **Save and Close**.

#### Related Topics

- [Display Email Thread of Past Conversations](#)
- [How do I configure profile options to display email thread?](#)
- [How do I define email templates?](#)

## Configure Email Templates to Control When to Include Past Conversations

When past conversations are enabled by setting the `SVC_EMAIL_ENABLE_PAST_CONVERSATIONS` profile option to Y, they're included in the SR message. But sometimes, you may not want to include past conversations in the SR message.

If the past conversations are enabled and you have used an email template, you can still control whether to include past conversations in an outbound email message. The `ORA_SVC_EMAIL_DEFAULT_PAST_CONVERSATIONS_IN_OUTBOUND_MSGS` profile option lets you decide whether you want to enable past conversations by default in outbound messages. This gives you more flexibility.

Let's consider some examples.

- **Past conversations aren't required:** When an agent is helping your customer to fix an issue, the customer may not require the thread of past conversations in every email related to this issue. So you can set the

ORA\_SVC\_EMAIL\_DEFAULT\_PAST\_CONVERSATIONS\_IN\_OUTBOUND\_MSGS profile to No and remove the `#PastConversation#` tag from the Customer Response email template. The past conversation isn't included in the email sent to the customer.

- **Past conversations are required:** Let's suppose the agent needs to take the help of another agent to resolve the customer issue. So he must share the whole past conversation thread with the agent who's helping him resolve the issue. In this case, you can set the ORA\_SVC\_EMAIL\_DEFAULT\_PAST\_CONVERSATIONS\_IN\_OUTBOUND\_MSGS profile to No and add the `#PastConversation#` tag to the Forward email template.

**Note:** You can configure this profile option by using the Manage Administrator Profile Values task. For more detailed steps, see Configure Profile Options to Display Email Thread.

To include past conversations only in selected emails of your choice, perform the following steps:

- Set the SVC\_EMAIL\_ENABLE\_PAST\_CONVERSATIONS profile option to Yes.
- Set the ORA\_SVC\_EMAIL\_DEFAULT\_PAST\_CONVERSATIONS\_IN\_OUTBOUND\_MSGS profile option to No.
- Add the `#PastConversation#` tag in your email templates for messages where you want to include past conversations.

This table explains how the ORA\_SVC\_EMAIL\_DEFAULT\_PAST\_CONVERSATIONS\_IN\_OUTBOUND\_MSGS profile option and the `#PastConversation#` tag help you to include or exclude past conversations.

Value of ORA_SVC_EMAIL_DEFAULT_PAST_CONVERSATIONS_IN_OUTBOUND_MSGS Profile Option	#PastConversation# tag present?	Past Conversations included in outbound message?
Yes	Yes	Included
Yes	No	Included
No	Yes	Included
No	No	<b>Not Included</b>

## Include Messages of Only Some Channel Types in Past Conversations

On the SRs, there may be various messages from different channels: your customer may have called, visited a retail store, or sent an email. These all become SR messages, but you may want the past conversations to include messages of only some channel types.

You can select those specific channel types by configuring this profile option.

**ORA\_SVC\_EMAIL\_PAST\_CONVERSATION\_CHAN\_TYPES:** Includes messages from only one or more specific channels in past conversations. Set the value to a comma-separated list of those specific channel types that you want.

**Note:** You can configure this profile option by using the Manage Administrator Profile Values task. For more detailed steps, see Configure Profile Options to Display Email Thread.

This table shows a sample range of values for this profile option, along with the result.

Profile option value	Messages from the following channel types are included in the past conversations:
blank	All channel types such as Email, Web, and Chat
ORA_SVC_EMAIL	Email only
ORA_SVC_EMAIL, ORA_SVC_CHAT	Email and Chat only
ORA_SVC_EMAIL, ORA_SVC_WEB	Email and Web only

## Purge Inbound Email Messages

### Purge Inbound Email Messages

As an administrator, you must periodically purge the older inbound email messages after the SRs are created successfully.

Again, you may sometimes have unprocessed emails for which the corresponding SRs couldn't be created. They're typically retained so that the source of messages isn't lost. You must also review them periodically and take suitable corrective action. Once that's done, you can purge those emails.

**Note:** You can use Oracle BI Publisher to create periodic reports for unprocessed emails.

To purge the unprocessed inbound messages periodically, you have to complete a few simple processes:

- Configure profile options to purge inbound email messages
- Schedule a job to purge inbound email messages

### Configure Profile Options to Purge Inbound Email Messages

You must configure the following profile options for purging inbound email messages.

Profile Option	Description
SVC_INBOUND_MSG_RETENTION_DAYS	<p>Indicates the number of retention days for inbound email messages. After the specified number of retention days, the successfully processed email messages are deleted from the inbound message table, inbound message parts table, and inbound message batch table.</p> <p>The default value is 30.</p>
SVC_INBOUND_ENABLE_FAILED_MESSAGE_PURGE	<p>Indicates whether to enable purging of inbound email messages that fail or aren't processed successfully.</p> <p>The default value is No. When the value is No, inbound email messages that fail or aren't processed successfully, are retained.</p> <p>After you review such email messages and take corrective action, you can set the value to Yes. When the value is set to Yes, the purge job deletes the corresponding records from the following tables:</p> <ul style="list-style-type: none"> <li>• Inbound message table</li> <li>• Inbound message parts table</li> <li>• Inbound message batch table</li> </ul>

1. Navigate to the Setup and Maintenance work area and open the **Tasks** panel tab.
2. Click **Search** from the list of displayed tasks.
3. In the **Search** field, type **Manage Administrator**.
4. From the displayed list of tasks, click **Manage Administrator Profile Values**.
5. In the Manage Administrator Profile Values page, navigate to the Search: Profile Option region.
6. In the **Profile Option Code** field, type `svc_inbound_ %`.
7. Click **Search**.

The Search Results: Profile Options region displays a list of profile options.

8. Select **SVC\_INBOUND\_MSG\_RETENTION\_DAYS**.
9. In the Profile Values region, specify the values in the **Profile Value** column for the Site **Profile Level** as described in the table.
10. Select **SVC\_INBOUND\_ENABLE\_FAILED\_MESSAGE\_PURGE** and repeat the previous step.
11. Click **Save**.

## Schedule a Job to Purge Inbound Email Messages

You can schedule a job that purges the successfully processed email messages from the inbound message database tables, based on the retention policy.

The retention days are set in the SVC\_INBOUND\_MSG\_RETENTION\_DAYS profile option. If you also want this job to purge inbound email messages that fail or aren't processed successfully, you must set the value of the SVC\_INBOUND\_ENABLE\_FAILED\_MESSAGE\_PURGE profile option to Yes. For more information, see "Configure Profile Options to Purge Inbound Messages".

This job runs periodically to purge inbound email and related records from the following database tables, based on the above two profile options:

- Inbound message
- Inbound message parts

- Inbound message batch

You can schedule the job to run once daily. Or, depending on your company's requirements, you can decide another frequency for the job.

To set up a scheduled process to purge data from the three inbound message tables:

1. In the Navigator for your service application, click **Scheduled Processes**.
2. In the Overview page, click **Schedule New Process**.
3. Select **Job** as the **Type** option.
4. In the **Name** drop-down list, click **Search**.
5. Search for and select **Purge Inbound Messages**.
6. Click **OK**.
7. In the **Process Details** dialog box, click **Advanced**.
8. On the Schedule tab, select **Using a schedule** as the **Run** option.
9. Schedule the job to execute on a recurring basis by specifying the frequency and other details as required.
10. Click **Submit**.

## Send Bulk Emails

### Optimize Sending Emails in Bulk

You may sometimes have situations where a major incident occurs, such as the network going down in the West Coast of the US. So a huge number of your customers would report issues triggered by this incident.

The root cause for all these issues would be the same incident. In such cases, you can compose multiple outbound messages or SR messages in bulk mode. You can then send out these bulk messages in batches without affecting the normal email communication with customers. Using groovy scripts or REST APIs, application developers can send outbound emails in bulk.

To optimize sending emails in bulk using groovy scripts:

In Application Composer, create an After Create trigger on the service request Message object and add the following groovy script in the **Edit Script** field:

**Trigger:** Create

```
if (ChannelTypeCd == "ORA_SVC_EMAIL") {  
    setAttribute('ProcessingStatusCd', "ORA_SVC_BATCH_READY");  
}
```

To optimize sending emails in bulk using REST APIs:

1. Go to Oracle Help Center.
2. Drill down to your apps service area of interest.
3. Go to the APIs and Schema section.
4. Review the REST service definition in the REST API guides available here.

**Note:** If you're new to Oracle's REST services, you may want to begin with the Quick Start section.

Here are some key pointers:

- If you're using REST APIs to create outbound messages and want to send them out in batch: You must set the value of the `DeliveryTypeCd` attribute to `ORA_SVC_BATCH`.
- If you're using REST APIs to create outbound SR messages and want to send them out in batch: You must set the value of the `ProcessingStatusCd` attribute to `ORA_SVC_BATCH_READY`.
- After you create all the outbound messages or SR messages, you can run the Send Outbound Messages scheduled process to send these messages in batch.

## Detect Unprocessed Emails

### Detect Your Unprocessed Inbound Emails

The records that are read from the email server are stored as records in the database table of your service application. The Detect Unprocessed Emails scheduled process checks the status of the records in the email server from the time that it starts.

It compares the data between the email server and the database tables of your service application. It then identifies the unprocessed records. Every time it runs, it starts checking from the first remaining unprocessed record.

Some emails may be present in the email server, but they may not have reached your service application because the application is down or because of some other issue. Every time the scheduled process runs, it checks the status of these pending emails, starting from the first remaining pending email. After a certain specified time limit, if a pending email has still not reached your service application, it will remain unprocessed.

**Note:** You can also use BIP reports to check whether you have any unprocessed emails.

### Configure Profile Options to Detect Unprocessed Emails

You must configure the following profile option for detecting unprocessed emails.

Profile Option	Description
ORA_SVC_MAX_DURATION_FOR_PENDING_EMAIL	<p>Indicates the maximum duration in hours for which an inbound email can remain in the pending status. The default value is 6 hours.</p> <p>The Detect Unprocessed Emails scheduled process keeps on checking the pending inbound email records for this duration. After this duration, the records that still remain pending are classified as a failure.</p>

To configure the profile option for detecting the unprocessed inbound emails:

1. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
2. Search for and click the **Manage Administrator Profile Values** task.
3. On the Manage Administrator Profile Values page, navigate to the Search: Profile Option region.

4. Search for and select the profile option in the table.
5. In the Profile Values region, specify the values in the **Profile Value** column for the Site **Profile Level** as described in the table.
6. Click **Save**.

## FAQs for Service Email

### Frequently Asked Questions (FAQs) for Service Email

This section contains some frequently asked questions (FAQs) when setting up and maintaining service email. Scroll or search to find answers to common questions.

### What happens when a customer sends a service email?

If a customer sends an email, then the email ID in the From field is validated against the customer record in the database. If a match is found, and the email is for a new service, then a new service request (SR) is created.

If a match to the email ID isn't found in the database, then the following applies:

- The value for the SVC\_EMAIL\_PROCESS\_UNKNOWN\_CUST profile option is selected. This option specifies how to process an incoming email from unknown customers.
- If the SVC\_EMAIL\_PROCESS\_UNKNOWN\_CUST profile option is set to **Y**, a new SR is created. However, a message is sent to customers indicating that they can't be identified and must provide valid information for further processing of the SR.
- If the SVC\_EMAIL\_PROCESS\_UNKNOWN\_CUST profile option is set to **N**, no SR is created.

**Note:** All the recipients of the incoming email, including the unknown contacts are listed in the SR Messages tab.

### How can I detect and prevent email loops?

You can prevent your service application from creating additional service requests (SRs) when there's an out-of-office reply from one of the recipients of the email.

For outbound SR emails, the recommended best practice is to have your administrator set the From address to a no-reply option, such as noreply@mycompanydomain.com. This way, even if one or more recipients have their out-of-office notification turned on, the out-of-office reply isn't received by your service application. So a new SR isn't created.

But let's say your administrator sets the From address to your Support email account. This could cause an infinite loop of emails and new SRs. That's because a new SR sends an automatic acknowledgment email, which would trigger an out-of-office reply. This reply would in turn trigger the creation of another new SR, and so on.

Your business requirements may not permit the use of a no-reply email address, and you may use your Support email account instead. To accommodate this requirement, the following profile options are provided to detect and prevent the creation of infinite email loops:

- SVC\_INBOUND\_ACK\_EMAIL\_LIMIT\_PER\_USER
- SVC\_INBOUND\_ACK\_EMAIL\_TIME\_INTERVAL
- SVC\_INBOUND\_EMAIL\_PATTERN\_TO\_STOP\_ACK

You can configure these profile options and set the values based on your company's requirement. For more information, see [Configure Profile Options for Inbound and Outbound Email](#).

#### *Related Topics*

- [How do I configure profile options for inbound and outbound email?](#)

## Why do some emails show as delivered in the configuration menu, but the SRs aren't created?

Sometimes, you may see that some emails appear as delivered when you click the Manage Email Configuration, Registration, and Validation task, but you don't see the service requests (SRs).

These emails also don't appear on the inbound email reports. This is especially true if you implement HR Help Desk.

Let's see why this happens. Suppose you're implementing HCM or HR Help Desk for your deployment. Then you must create two email channels: one with the CRM application stripe and the other with the HCM or HR Help Desk application stripe. But let's say you forget to create the HCM or HR Help Desk email channel. Then the SRs created from the emails are set with the CRM application stripe. So the HCM or HR Help Desk SRs aren't visible, and only the CRM SRs are visible.

To make the HCM or HR Help Desk SRs visible:

1. Create the HCM or HR Help Desk channel.
2. Run an ODI import process to update the stripe code for such SRs from CRM to HCM or HR Help Desk.

After the ODI import, these HCM or HR Help Desk SRs are visible.

#### *Related Topics*

- [How do I configure an email channel?](#)

## Can I use the problem description of an SR as the subject in an outbound email?

You must not use the problem description of a service request (SR) as the subject in an outbound email.

Problem descriptions for SRs can be very long, sometimes up to 1000 characters. So they can span across multiple lines and also include the ENTER key. That's why it's not valid to use them as the subject in the email template.

## Why is the channel ID set to the default email channel for some of my inbound emails?

Let's say your customer sends an email to your support email ID such as `support@mycompanydomain.com`, and it's redirected to the Oracle mailbox. Here's what happens:

- If the **To** address specified by your customer matches the account name of any channel defined in the application, that channel ID is set on the service request (SR).
- If the **To** address specified by your customer doesn't match the account name of any channel defined in the application, then the channel ID on the SR is set to the default channel, which is E-mail.

## How can I prevent a new SR from being created when a customer replies to an email notification that's set up using groovy scripts or object workflow?

For all outbound emails generated by your service application, the message ID or SR number are automatically added at the end of the email in the format `{##Messageid##}` or `{##SrNumber##}` respectively. When someone replies to such an outbound email or forwards it, the application uses these values to identify the parent SR.

But let's suppose you have created a groovy script or an object workflow to send an email notification when an SR is resolved. And this notification doesn't have the `{##Messageid##}` or `{##SrNumber##}` tags at the end of the message. So when your customer's SR is resolved, they receive a notification without the identifying tags. Now let's say the issue recurs for the customer. Instead of replying to an earlier mail thread, they may reply to this notification. Then the application isn't able to identify the original SR because it doesn't contain the tags at the end of the notification. So the application considers it as a new SR. The same issue occurs if someone forwards that notification back to the application.

To prevent the application from creating new SRs in such situations, you must do the following. At the end of the message content of your outbound email notification, ensure that you add either the message ID in the format `{##Messageid##}` or the SR number in the format `{##SrNumber##}`.

**Note:** You can verify the exact format of these tags from any sample acknowledgment email that's sent after an SR is created from an inbound email.

## How can I facilitate customers to reply to email notifications created using object workflow?

When you're creating the Email Notification action on an object workflow in Application Composer, ensure that you set the **Reply To Address** to the email address of a channel that's defined in the application. You would specify this email address in the **Specific email addresses** field. For example: `support@mycompanydomain.com`. Customers can then reply to these email notifications created using object workflow.

## How can the errors be logged and tracked when a service request is not created through email?

If an email is received by Oracle Engagement Cloud but fails to create a service request due to validation issues on the SR, or for another reason, the failure is captured in the InboundMessage object.

Go to Service Infolets > Inbound Messages to see if a failure occurred. To see the reason for the failure, export the data from the Inbound Messages object, then check the StatusDetails attribute which shows the reason of the failure.

## Notes

### Enable Users to Edit Internal Notes and Customer Entry Messages that They've Authored

You may want to allow an agent to edit messages they've authored of Type Internal Notes or Customer Entry.

For this option to be available to your users, you must enable the SVC\_ENABLE\_MESSAGE\_CORRECTION profile option. The default value of this profile option is No.

To enable the SVC\_ENABLE\_MESSAGE\_CORRECTION profile option:

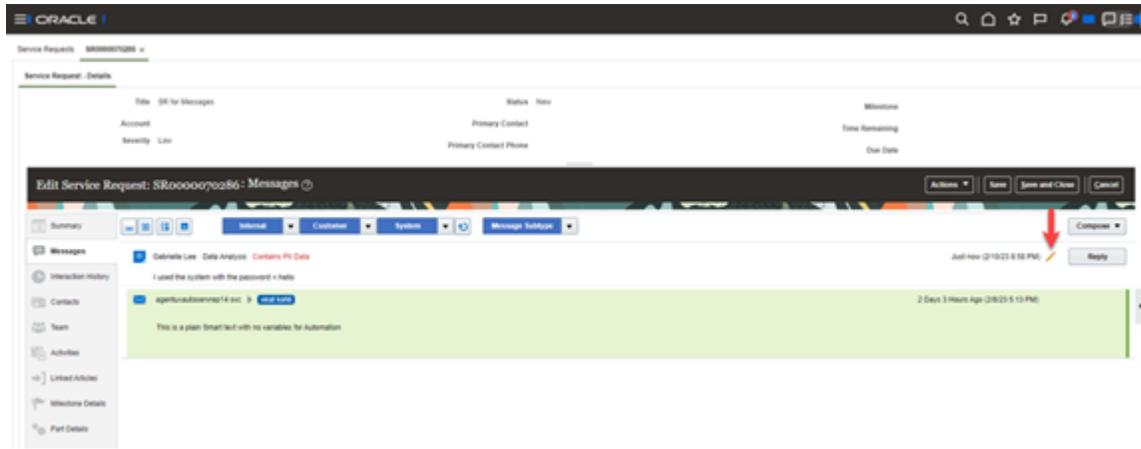
1. Sign in as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area.
3. Open the **Tasks** panel tab and click **Search**.
4. Search for and select the **Manage Administrator Profile Values** task.
5. On the Manage Administrator Profile Values page, navigate to the **Search** region.
6. In the Profile Option Code field, type **SVC\_ENABLE\_MESSAGE\_CORRECTION**, and then click **Search**.

The SVC\_ENABLE\_MESSAGE\_CORRECTION profile option is displayed in the **Search Results: Profile Options** region.

7. In the Profile Option Levels region, set the **Profile Value for the Site Profile Level** as **Yes**.

8. Click **Save**.

After setting this profile option to **Yes**, the user will see a pencil icon for any Internal Notes and Customer Entry Messages they have Authored as shown in the following graphic:



## Enable Users to Mark a Message as Containing Personal Information (PII) and Set the Message Subtype Value

You may want to allow an agent to mark a message as containing Personal information and provide additional classification by setting the subtype value on the message.

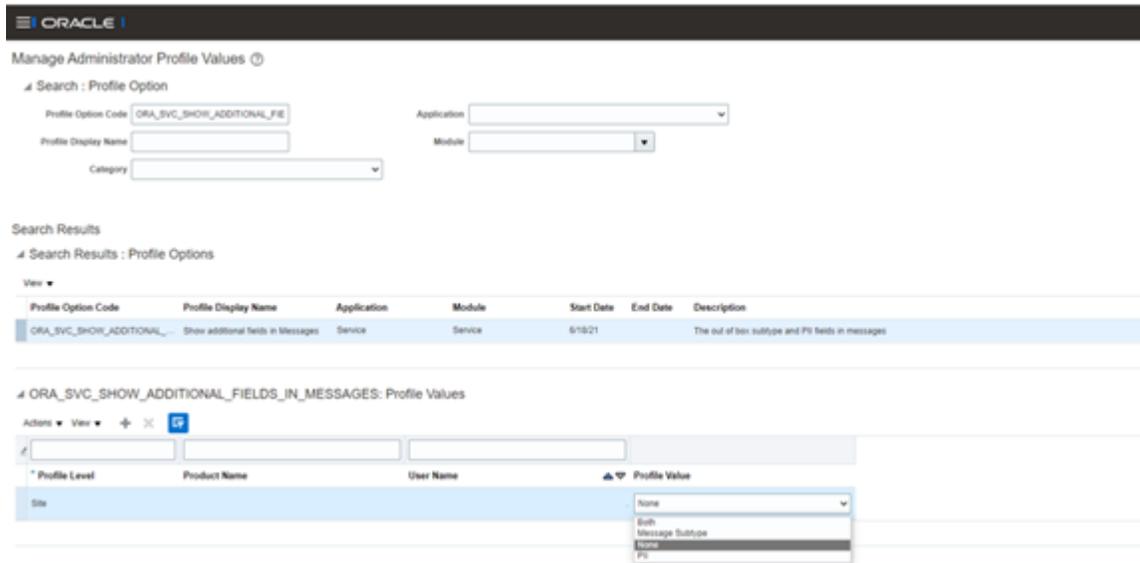
For these options to be available to users, you must enable the `ORA_SVC_SHOW_ADDITIONAL_FIELDS_IN_MESSAGES` profile option. The default value of this profile option is None.

To enable the `ORA_SVC_SHOW_ADDITIONAL_FIELDS_IN_MESSAGES` profile option:

1. Sign in as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area.
3. Open the **Tasks** panel tab and click **Search**.
4. Search for and select the **Manage Administrator Profile Values** task.
5. On the Manage Administrator Profile Values page, navigate to the **Search** region.
6. In the Profile Option Code field, type `ORA_SVC_SHOW_ADDITIONAL_FIELDS_IN_MESSAGES`, and then click **Search**.

The `ORA_SVC_SHOW_ADDITIONAL_FIELDS_IN_MESSAGES` profile option is displayed in the **Search Results: Profile Options** region.

7. In the Profile Option Levels region, set the **Profile Value for the Site Profile Level** to one of these values:
  - o **Both**: Show both PII and Subtype fields in the message header.
  - o **Message Subtype**: Show just the Subtype field in the message header.
  - o **None**: The default value. Do not show any additional fields in the message header.
  - o **PII**: Show only PII field in the message header.



8. Click **Save**.

## Configure Message Sub Type Values

You can create and select subtype values for the different message types that will be shown in the message subtype field when it is exposed in the message header.

To configure these message subtype values do the following:

1. Sign in as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area.
3. Open the **Tasks** panel tab and click **Search**.
4. Search for and select the **Manage Service Request Message Types and Subtypes** task.

5. Create new records for the message subtype and then map them to the appropriate message type by moving them into the **Selected Subtypes** panel as displayed in the following example:

**Manage Service Request Message Types and Subtypes** ?

Map Subtypes to Types

**Types**

- Chat Transcript
- Customer Entry
- Forward
- Internal Note
- Response
- System Note
- System Response
- Wrap Up

**Available Subtypes**

Used Elsewhere

**Selected Subtypes**

- Data Analysis
- Msg SubType\_CustomerEntry
- Msg SubType\_Response

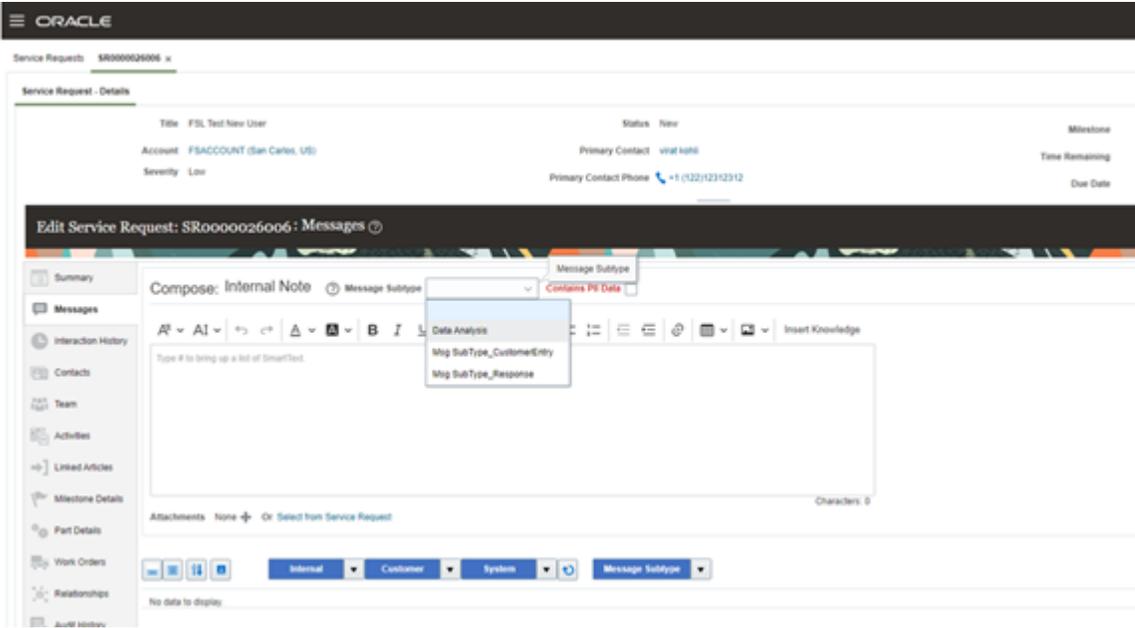
Edit Types and Subtypes

Message Type Code | Message Subtype

Actions View Format + X [Icons] Freeze Detach Wrap

Lookup Code	Display Sequence	Enabled	Start Date	End Date	Meaning	Description
SVC_RESPONSE_TEST	10	<input checked="" type="checkbox"/>	m/d/yy	m/d/yy	Msg SubType_Response	Msg SubType_Response
SVC_CUSTOMERENTER_TEST	20	<input checked="" type="checkbox"/>	m/d/yy	m/d/yy	Msg SubType_CustomerEntry	Msg SubType_CustomerEntry
DATA_ANALYSIS	30	<input checked="" type="checkbox"/>	m/d/yy	m/d/yy	Data Analysis	Data Analysis

And here's what the agent will see when these fields are exposed in the message header:





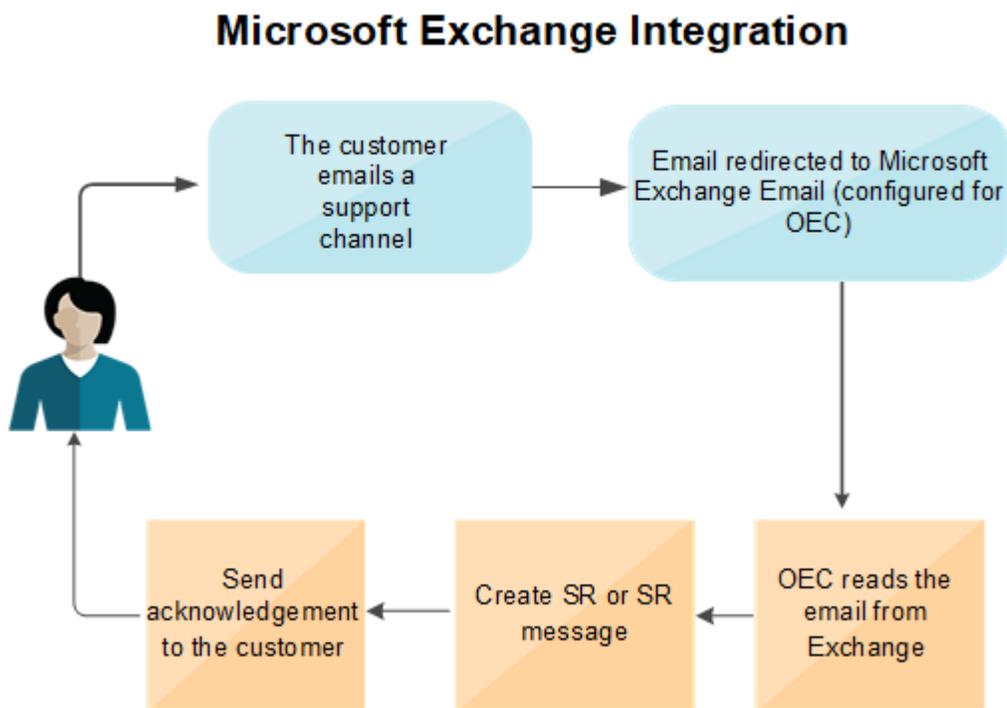
# 10 Integrate with Microsoft Exchange Server

## Overview of the Integration

Integrating with Microsoft Exchange Server allows you to streamline your service email delivery giving more options and fewer potential failure points.

Create one redirect rule to one of your support mailboxes which is then monitored by Oracle Engagement Cloud (OEC) and the Microsoft Exchange API.

The following graphic shows a high level overview of the integration:



**Note:** These procedures require certain set up tasks be done in Microsoft Exchange Server. For information on this, you must consult the Microsoft documentation.

## Register an App in Microsoft Azure

You begin the integration by creating and registering an app in Microsoft Azure.

When you set up this app you grant all the required permissions to read emails from support mailboxes. After the registration process, the client ID and secret that you created for the app are securely stored in Oracle Platform Security Services (OPSS).

You must have administrator access to Microsoft Azure and Exchange portals.

Here's how you register the app:

1. Sign in to Microsoft Azure as an administrator.
2. In the explorer list, navigate to **Azure Active Directory > App Registrations**.
3. Click **+ New registration**.
4. In the **Register an application** screen, enter a name for the app, and then select **Single tenant**.

**Note:** In future releases, multitenant support will be available, but not currently.

The screenshot shows the 'Register an application' page in the Microsoft Azure portal. The page has a blue header with the Microsoft Azure logo and a search bar. Below the header, there is a breadcrumb trail: 'Home > zpss | App registrations >'. The main heading is 'Register an application'. There is a required field for 'Name' with a description: 'The user-facing display name for this application (this can be changed later)'. Below this is an empty text input field. The 'Supported account types' section is titled 'Who can use this application or access this API?' and has three radio button options: 'Accounts in this organizational directory only (zpss only - Single tenant)' (selected), 'Accounts in any organizational directory (Any Azure AD directory - Multitenant)', and 'Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)'. There is a link 'Help me choose...'. The 'Redirect URI (optional)' section has a description: 'We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.' It has a dropdown menu set to 'Web' and a text input field containing 'e.g. https://myapp.com/auth'. At the bottom, there is a link 'By proceeding, you agree to the Microsoft Platform Policies' and a blue 'Register' button.

5. When you're finished, click **Register**.

- On the Stage screen, copy and retain the **Application (client) ID**, and **Tenant ID** for later use.

## Call APIs

- In the explorer, click **Certificates & secrets**.
- Create a new client secret and select **Never** as the expiration option, then copy the client secret for later use.
- In the explorer, click **API permissions**.
- Click **Add a permission**, then select **Microsoft Graph**.

- On the **Request API Permissions** screen, select **Application Permissions**.
- In the **Select Permissions** field enter **User** and then scroll down and select **User.Read.All**.

13. Grant the following API permissions:
  - o Mail.Read
  - o Mail.ReadBasic
  - o Mail.ReadBasic.All
  - o User.Read
  - o User.ReadAll
14. Now, click **Grant admin consent required** and select **Yes** for each of the permissions you just added. The app has now been given permission to read emails.

## Limit Access of Mailboxes Using REST API

To provide access to a selected list of outlook mailboxes using the MS Graph API, you now must configure a connection to connect to Microsoft Exchange online PowerShell.

Use the following steps to connect to the PowerShell using docker, then perform the steps to limit the mailbox access.

1. Execute the following commands to install the dependencies to connect to exchange online:
  - o `--Install-Module -Name PSWSMan` (If prompted, accept PSGallery as the source for the cmdlets.)
  - o `--Install-WSMan` (If prompted, accept PSGallery as the source for the cmdlets).
  - o `--Install-Module -Name ExchangeOnlineManagement`
  - o `--Import-Module ExchangeOnlineManagement`
  - o **Note:** If you don't have access to the PowerShell tool, run the following PowerShell docker image:

```
docker run -it mcr.microsoft.com/powershell
```
2. Execute the following command to connect to Exchange Online: `Connect-ExchangeOnline -Device`  
The output will have a URL with an authentication code, which must be opened in a browser.
3. From the browser, authenticate by logging in to the account.
4. Create a new mail-enabled security group consisting of the mailboxes that should be allowed to access: <https://docs.microsoft.com/en-us/exchange/recipients-in-exchange-online/manage-mail-enabled-security-groups>
5. Execute the following command with the required tenantId and the security group email address:

```
New-ApplicationAccessPolicy -AppId <client_id> -PolicyScopeGroupId <security_group_email_id> -AccessRight RestrictAccess -Description "<description>"
```

For example: `New-ApplicationAccessPolicy -AppId d2abe981-a2f3-44f7-af10-acd1c30e61d4 -PolicyScopeGroupId testdistributionlist@4development11395.onmicrosoft.com -AccessRight RestrictAccess -Description "Restrict this app to members of distribution group Test group."`
6. Use following command to verify that the app has permission to access the given mailbox: `Test-ApplicationAccessPolicy -Identity <email_address> -AppId <client_id>`  
For example: `Test-ApplicationAccessPolicy -Identity service_test11@4development11395.onmicrosoft.com -AppId d2abe981-a2f3-44f7-af10-acd1c30e61d4`  
The process can take up to an hour to reflect in the REST APIs. Once the change is reflected, an error message similar to the following will be shown, when trying to access a mailbox that is not permitted:

```
"body": {
```

```
"error": {  
  "code": "ErrorAccessDenied",  
  "message": "Access to OData is disabled."  
}
```

Now you add these configurations to your Fusion application.

## Configure Fusion Email

Now you can configure Fusion email.

1. Sign in to Fusion Service as an administrator.
2. From Setup and Maintenance, click the **Tasks** icon, and click the **Search** link.
3. In the search field, enter **Manage Administrator Profile Values**, and then select it.
4. In the Profile Option Code field, enter `ORA_SVC_ENABLE_INBOUND_EMAIL_EXTERNAL_APPS_CONFIGURATION` and click **Search**.

Manage Administrator Profile Values ?

Search : Profile Option

Profile Option Code  Profile Option Code

Profile Display Name

Category

Application

Module

5. In the **Profile Values** list, set the profile value to **Yes**.

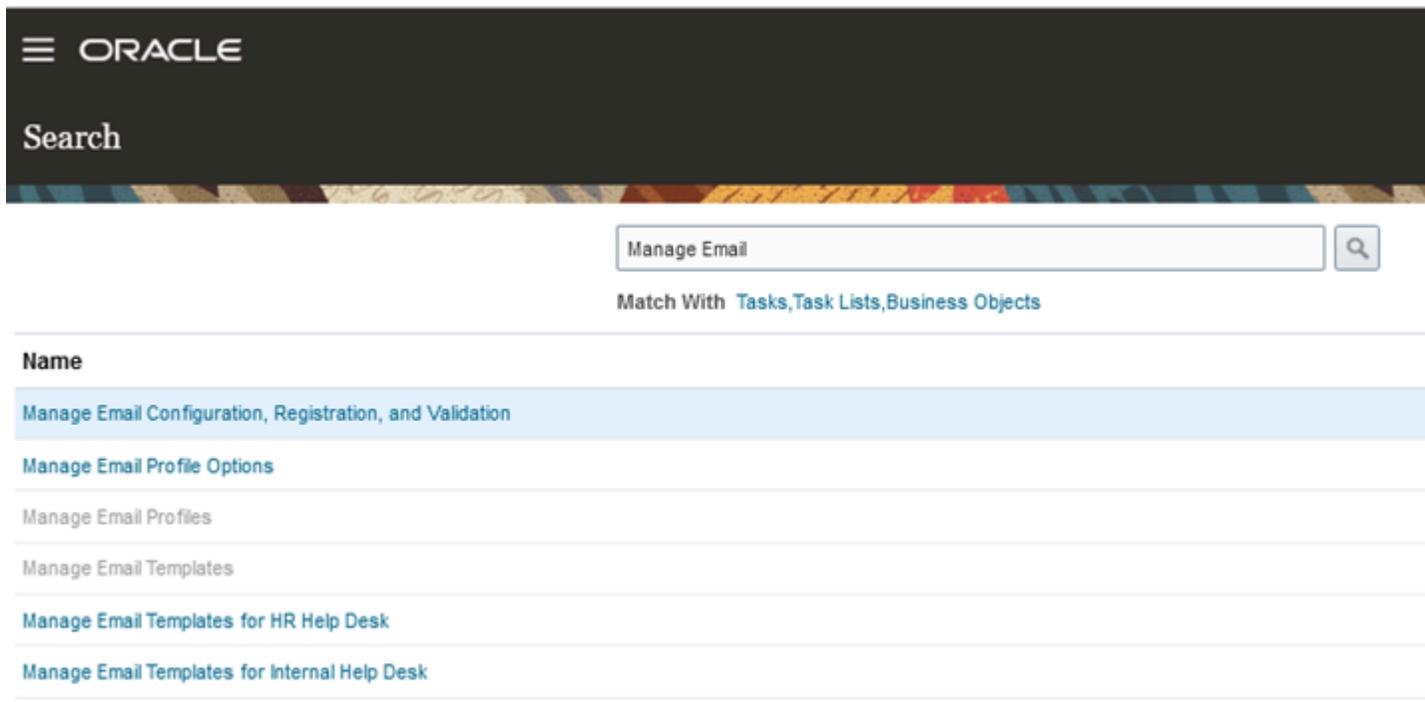
ORA\_SVC\_ENABLE\_INBOUND\_EMAIL\_EXTERNAL\_APPS\_CONFIGURATION: Profile Values

Actions View + X

Profile Level	Product Name	User Name	Profile Value
Site			Yes

6. Click **Save and Close**.

7. In the Search field, enter **Manage Email**.



8. Choose the task **Manage Email Configuration, Registration, and Validation**.
9. Scroll down to the **Configure External Applications** area and enter the values retained from the setup you did in Azure, including Tenant ID, Client ID, Client Secret and so on.

## Configure External Applications

* Tenant ID	<input type="text" value="d271d316-e042-422f-b36e-037266067193"/>
* Client ID	<input type="text" value="d2abe981-a2f3-44f7-af10-acd1c30e61d4"/>
* Client Secret	<input type="text" value="5xm8Q~Bc9CEwNA5UknxAlcUbj2of7PscC_Oy7agq"/>
* Email Address	<input type="text" value="service_test5@4development11395.onmicrosoft.com"/>
* Activation Date	<input type="text" value="11.22.2022 AM 01.04.09"/>

10. Enter the email address you want to use.  
**Note:** You can only set up one email address, such as support.examplecompany.com.
11. In the **Activation Date** field, enter the date you want the processes to start.
12. Click **Save**, and then scroll to the top of the page and click **Done**

## Set Inbound Email Attachment Size

The default attachment size for inbound email is 15MB. To increase this size you set configure the SVC\_INBOUND\_EMAIL\_MAX\_ATTACH\_SIZE profile option. Here's how you do it:

1. Sign in to Fusion Service as an administrator.
2. From Setup and Maintenance, click the **Tasks** icon, and click the **Search** link.
3. In the search field, enter **Manage Administrator Profile Values**, and then select it.
4. In the Profile Option Code field, enter SVC\_INBOUND\_EMAIL\_MAX\_ATTACH\_SIZE and click **Search**
5. In the Profile Values list, for the Site Profile Level increase the **Profile Value** to the MB value you require, then click **Save and Close**.

## How do I create a job to read messages?

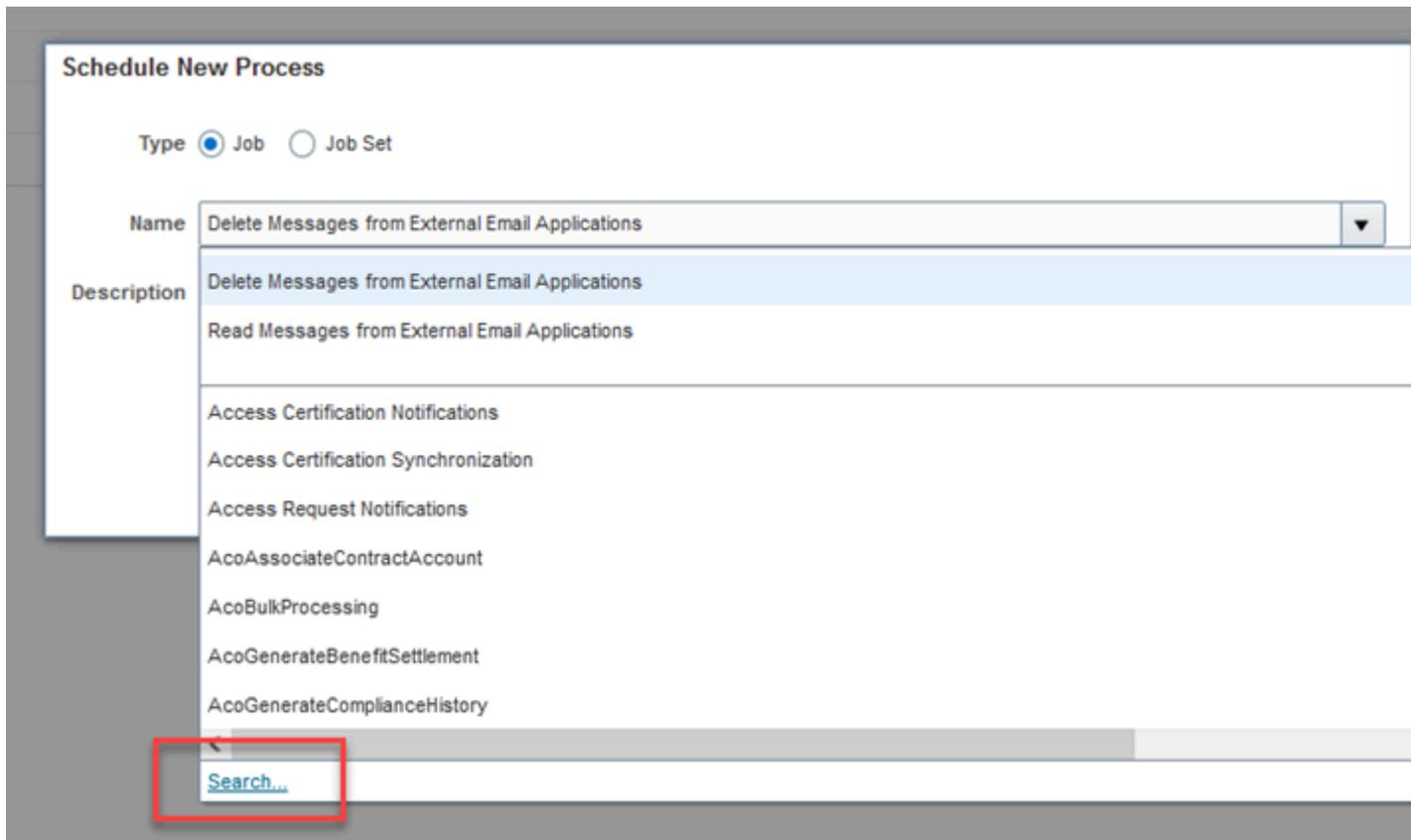
Now, you create an ESS job to periodically read the email messages from the configured outlook email address.

This process stores all the required details of an email in your database. After reading the required number of emails in a batch, a new event is generated to create an SR or an SR message using the existing SOA composite.

Here's how you create the new job:

1. From the Navigator, select Tools, then **Scheduled Processes**.
2. Click **Schedule New Process**.

3. From the Schedule New Process dialog box, click the drop-down list, and then click the **Search** link.



4. On the Search and Select: Name dialog box, enter any part of **Read Messages from External Email Applications** in the **Name** field, and then click **Search**.
5. From the results, select **Read Messages from External Email Applications** and click **OK**, and then click **OK** again.
6. On Process Details page, click **Advanced**, then in the **Advanced Options** area, select **Using a schedule**, then set a time, such as every 1 minute, every 2 minutes, or whatever time increment suits your needs.
7. When you're finished, click **Submit**.

## Create a Job to Delete Messages

Your mailbox serves as staging area, but messages don't need to be retained there. Use this topic to create a job to periodically delete messages.

1. From the Navigator, select Tools, then **Scheduled Processes**.
2. Click **Schedule New Process**.
3. From the Schedule New Process dialog box, click the drop-down list, and then click the **Search** link.
4. On the Search and Select: Name dialog box, enter any part of **Delete Messages from External Email Applications** in the **Name** field, and then click **Search**.
5. From the results, select **Delete Messages from External Email Applications** and click **OK**, and then click **OK** again.

6. On Process Details page, click **Advanced**, then in the **Advanced Options** area, select **Using a schedule**, then set a time, such as every 1 minute, every 2 minutes, or whatever time increment suits your needs.
7. When you're finished, click **Submit**.

## How do I schedule deletion of inbound emails previously retrieved from Exchange Server?

You can set up a scheduled process to automatically delete inbound emails from the inbox on your Microsoft Exchange server if those emails have already been retrieved and processed. This job increases performance if you're integrated with Microsoft Exchange Server, by removing unnecessary processing.

Here's how you do it:

1. In Setup and Maintenance, do the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Email Configuration, Registration and Validation
2. In the Configure External Applications section, select the **Delete Message** check box.

This ESS job, **Delete Messages from External Email Applications**, deletes inbound email from the inbox on Exchange Server, and it will now automatically run according to the schedule set by the administrator.



# 11 Slack Channels

## Overview

### Use the Slack Channel for Collaboration

Slack is a team communication tool that facilitates synchronous communication across different devices.

People across departments can use Slack to work together to make better and faster business decisions.

You can set up the integration of Slack with Oracle Fusion Service, and this helps your company in the following ways:

- Service agents can collaborate with subject matter experts to resolve customer questions and issues faster.
- Notifications are triggered to Slack users and channels when certain events occur on an object. For example, when a service request is set to critical or when an opportunity is closed.

#### *Related Topics*

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)

### Overview of Setting Up a Slack Channel for Your Fusion Application

You can integrate your sales and service application with Slack in two ways. Depending on your company's requirement, you must follow the steps listed in one of the following sections:

- Set Up a Slack Channel: Method 1: If you plan to use only the predefined slash commands and you don't plan to modify existing commands or create your own commands in Slack.
- Set Up a Slack Channel: Method 2: If you plan to create your own slash commands in Slack.

## Set Up a Slack Channel: Method 1

### How You Set Up a Slack Channel for your Fusion Application: Method 1

How you integrate your sales and service application with Slack depends upon your company's requirement. Let's say you plan to use only the predefined slash commands and you don't need to modify the existing commands or create commands in Slack. Then you must complete the steps listed in the following table.

**Note:** Each of these steps is described in a separate topic, and you must complete them in the given order.

Step no.	Name of topic
1	Install the Fusion Sales and Service App from the Slack Marketplace
2	Update Your Slack App Credentials in Functional Setup Manager
3	Create a Slack Channel in Your Fusion Application
4	Enable Notifications to Slack
5	Add a Slack Contact Point for Your Sales Representatives Who Use Slack <b>(Required for your Sales application, Not Required for your Service application)</b>
6	Set Up a Scheduled Process to Synchronize Slack Users <b>(Required for your Service application, Not Required for your Sales application)</b>

## Install the Fusion Sales and Service App from the Slack Marketplace

You can install a preconfigured Fusion Sales and Service Slack app to your workspace.

1. Navigate to: [slack.com/apps](https://slack.com/apps)
2. Ensure that you're signed in to your Slack workspace.
3. On the Slack App Directory page, navigate to the Essential Apps region.
4. Search for and click **Oracle Fusion Sales and Service**.
5. On the Fusion Sales and Service page in the Slack App Directory, click **Add to Slack**.
6. On the page that requests permission to access your Slack workspace, click **Allow**.
7. On the next page, do the following:
  - a. Provide a name for the app.
  - b. Provide a description for the app.
  - c. Change the application icon if required.
  - d. Set the Fusion Sales and Service web address to: `https://pod_name:443`

Here, pod\_name is the name of the Fusion Sales and Fusion Service instance provisioned for you.

8. Copy the contents of the text box located in the **Add your Slack credentials to your app** region.

**Note:** These details are used in updating Functional Setup Manager (FSM) with credentials of your Slack app.

## Update Your Slack App Credentials in Functional Setup Manager

To update the credentials of your Slack app in the Functional Setup Manager (FSM) in Fusion Sales and Service:

1. Sign in to your Fusion application as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area and open the Tasks panel tab.
3. Click **Search** from the list of displayed tasks.
4. Search for and select **Manage Collaboration Network Credentials**.
5. On the Manage Collaboration Network Credentials page, specify the **Client Identifier**, **Client Secret**, and **Signing Secret**.

**Note:** This is the same text that you copied in the last step of the "Install the Fusion Sales and Service App from the Slack Marketplace" topic.

6. Click **Save and Close**.

## Create a Slack Channel in Your Fusion Application

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

For each of your Slack workspaces, you must create a Slack channel in Fusion Sales and Service. So if you have multiple Slack workspaces, you have multiple Slack channels in Fusion Sales and Service.

To create a Slack channel in the Fusion application:

1. Sign in to the Fusion application as a setup user or administrator.
2. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
3. Click **Search** from the list of displayed tasks.
4. Search for and select **Manage Communication Channels**.
5. In the Service Channels page, click **Create Channel**.
6. In the Create Channel window:
  - o The **Stripe Code** is set as **CRM** by default.
  - o Select the **Purpose** as **Collaboration**.
  - o Select the **Channel Type** as **Slack**.
  - o Click **Authorize**.

A new browser tab opens and the following page is displayed in Slack: Sign in to your workspace.

7. In the space provided below the **Enter your workspace's Slack URL** prompt, enter the workspace for which you want to create the Slack channel.
8. Click **Continue**.
9. Sign in to your Slack workspace as an administrator.
10. Complete the next steps on Slack to provide permissions.
11. Click **Authorize**.

A message is displayed, stating that the authorization is complete.

12. Close this browser tab and return to the channel creation page in Fusion Sales and Fusion Service.

Notice that the **Account Name**, **Channel Code**, and **Display Name** are prepopulated.

13. Click **Save and Close** to save the Slack channel.

#### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Enable Notifications to Slack

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

All outbound messages from Fusion Sales and Fusion Service to Slack use the notifications framework. So, for outbound messages to be delivered to Slack, you must enable notifications.

For more information about how to enable notifications, see "Enable Notifications for Service Requests".

#### Related Topics

- [How do I enable notifications?](#)
- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Add a Slack Contact Point for Your Sales Representatives Who Use Slack

**This is a required step for Sales from "How You Set Up a Slack Channel for Your Fusion Application".**

**(Required for your sales application, Not Required for your service application)**

Every Slack user has a unique Slack user ID. When a sales representative executes a slash command in Slack, his information needs to be retrieved from Fusion Sales and displayed in Slack. For this to happen, you must add a Slack contact point in Fusion Sales for every sales representative who uses Slack. This way, you map the unique Slack user ID of each sales representative to his resource record in Fusion Sales.

1. In the Navigator for Fusion Sales, click **Resource Directory**.
2. Click the **Tasks** panel tab.
3. In the Resources region, click **View Resources**.
4. On the View Resources page, navigate to the **Resource Name** field.
5. Type the name of the resource to whom you want to give the capability to execute Slash commands.
6. Click **Search**.
7. In the Search Results area, click the record of the sales representative.
8. On the Resource page of the sales representative, click the **Additional Contact Information** tab.
9. Click the plus icon to create a new contact point.
10. In the **Create Contact Point** dialog box, in the **Contact Point Type** drop-down list, select **Social network**.
11. In the **Purpose** field, select **Work**.
12. In the **Social Network** drop-down list, select **Slack**.
13. In the **User ID** field, find and enter the Slack user ID of the service representative as follows:

- a. In the Slack workspace, in the Direct Messages area, select the name of the sales representative.
- b. In the adjacent pane, click the name of the sales representative.
- c. Click **View profile**.
- d. In the **Workspace Directory** panel that's displayed, click the ellipsis symbol.
- e. Select **Copy member ID** along with the ID.
- f. Paste this member ID in the **User ID** field in the **Create Contact Point** dialog box.
- g. Click **OK**.

When the sales representative now executes a slash command in Slack, his resource record in Fusion Sales is identified based on his Slack user ID. And the query is executed on his behalf. The information from his record in Fusion Sales is then displayed in Slack.

#### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Set Up a Scheduled Process to Synchronize Slack Users

**This is a required step for Service from "How You Set Up a Slack Channel for Your Fusion Application".**

**(Required for your service application, Not Required for your sales application)**

To set up a scheduled process to synchronize Slack users:

1. In the Navigator for your Fusion application, click **Scheduled Processes**.
2. In the Overview page, click **Schedule New Process**.
3. Specify the name as **Sync All Slack Resources**.
4. Click **Advanced**.
5. Schedule the job to execute on a recurring basis.

You have now completed the setup of the Slack channel for collaboration. While composing messages in the Messages tab of an SR, all the Slack channels and users for a corresponding workspace appear in the **To** drop-down list.

#### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Set Up a Slack Channel: Method 2

### How You Set Up a Slack Channel for Your Fusion Application: Method 2

How you integrate your sales and service application with Slack depends upon your company's requirement. If you want to create your own slash commands in Slack, you must follow the steps listed in the following table:

**Note:** Each of these steps is described in a separate topic, and you must complete them in the given order.

Step no.	Name of topic
1	Create a Slack App for Fusion Sales and Service
2	Update the Display Information for Your Slack App
3	Add a Redirect URL for Your Slack App
4	Add Scopes to Your Slack App
5	Set Up Interactive Components for Your Slack App
6	Set Up Slash Commands in Slack for Opportunities, Leads, and Accounts <b>(Required for your Sales application, Not Required for your Service application)</b>
7	Update Functional Setup Manager with Credentials of Your Slack App
8	Create a Slack Channel in Your Fusion Application
9	Enable Notifications to Slack
10	Add a Slack Contact Point for Your Sales Representatives Who Use Slack <b>(Required for your Sales application, Not Required for your Service application)</b>
11	Set Up a Scheduled Process to Synchronize Slack Users <b>(Required for your Service application, Not Required for your Sales application)</b>

## Create a Slack App for Fusion Sales and Service

To create a Slack app for Oracle Fusion Sales and Service:

1. Navigate to: <https://api.slack.com/apps>
2. Click **Create an App**.
3. In the **Create a Slack App** dialog box, in the **App Name** field, type a suitable app name.
4. From the **Development Slack Workspace** drop-down list, select the workspace where you want the Fusion Sales and Fusion Service integration to be deployed.
5. Click **Create App**.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Update the Display Information for Your Slack App

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

To update the display information for your Slack app:

1. Navigate to the Settings region of your Slack app.
2. Click **Basic Information**.
3. On the Basic Information page, scroll down to the Display Information region.

The name of your Slack app is prefilled in the **App Name** field.

4. Provide a short description, app icon, and background color for your Slack app.
5. Click **Save Changes**.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Add a Redirect URL for Your Slack App

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

After a Slack channel is authorized, the redirect URL is used by Slack to provide OAuth tokens to Fusion Sales and Fusion Service.

To add a redirect URL for your Slack App:

1. In the Features region of your Slack app, click **OAuth & Permissions**.
2. On the **OAuth & Permissions** page, in the Redirect URLs region, click **Add New Redirect URL**.
3. In the **Redirect URLs** field, set the redirect URL.

**Note:** The URL must be in the following format: `https://pod_name:443/crmUI/faces/AuthenticateSlack`, where `pod_name` is the name of the Fusion Sales and Fusion Service instance provisioned for you.

4. Click **Add**.
5. Click **Save URLs**.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Add Scopes to Your Slack App

The capabilities and permissions of a Slack app are governed by the scopes that it requests.

**Note:** For more information about Slack permission scopes refer to the Slack API documentation: [Slack Permission Scopes](#).

To add the scopes to your Slack app:

1. In the Features region of your Slack app, click **OAuth and Permissions**.
2. On the OAuth and Permissions page, navigate to the Scopes region.
3. In the Bot Token Scopes section, click **Add an OAuth Scope**.
4. Add the following scopes to your app:
  - o channels:manage
  - o channels:read
  - o chat:write
  - o chat:write.customize
  - o chat:write.public
  - o Commands
  - o groups:read
  - o groups:write
  - o im:write
  - o im:read
  - o mpim:read
  - o mpim:write
  - o users:read

**Note:** A bot user is created in your app.

5. (Optional) Rename the bot user by navigating to the App Home region of your Slack app.

## Set Up Interactive Components for Your Slack App

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

Interactive components are action buttons that are displayed on Slack messages. Users can take these actions on the messages in Slack, which are sent from Fusion Sales and Service.

For example: When an SR is forwarded to a Slack channel, users can click Reply to reply to an SR. They can then add their response in the resulting dialog.

To set up interactive components for your Slack app:

1. In the Features region of your Slack app, click **Interactivity and Shortcuts**.
2. In the Interactivity region, turn on the interactivity.
3. In the **Request URL** field, set the request URL to `https://pod_name:443/crmRestApi/collaborationResources/latest/actions`, where `pod_name` is the name of the Oracle Fusion Sales and Service instance provisioned for you.
4. Click **Save Changes**.

*Related Topics*

- [Use the Slack Channel for Collaboration](#)

## Set Up Slash Commands in Slack for Opportunities, Leads, and Accounts

**This is a required step for Sales from "How You Set Up a Slack Channel for Your Fusion Application".**

**(Required for your sales application, Not Required for your service application)**

Because sales representatives travel quite often, sometimes it's not easy for them to sign in to Fusion Sales on their different devices. With the integration of Fusion Sales with Slack, they can view their top five opportunities, leads, and accounts from Slack on any of their devices. They can also take actions on their opportunities.

They can navigate to a workspace in Slack and use the respective slash commands to get their top five opportunities, leads, and accounts. The slash commands use the Sales Cloud RESP API to retrieve the opportunities, leads, and accounts. The results are only visible to the Slack user who executes the command. You first need to set up the slash commands for opportunities, leads, and accounts in Slack.

Here's a list of slash commands in Slack and their corresponding results.

Slash Command in Slack	What this command retrieves from Fusion Sales
<code>/ec-my-opportunities</code>	Top five opportunities with the close date in the current quarter and owned by the sales representative who executes the command.
<code>/ec-my-leads</code>	First five leads owned by the sales representative who executes the command. They are selected from only the qualified and unqualified leads owned by the sales representative in the last three months.
<code>/ec-my-accounts</code>	First five accounts owned by the sales representative who executes the command.

To set up the slash commands in Slack for opportunities, leads, and accounts:

1. In the Features region of your Slack app, click **Slash Commands**.
2. In the Slash Commands region, click **Create New Command**.

3. In the **Command** field, enter the following commands:

- For opportunities: `/ec-my-opportunities`
- For leads: `/ec-my-leads`
- For leads: `/ec-my-accounts`

**Note:** Ensure that the commands exactly match the given commands. If you modify the commands, they don't work.

4. In the **Request URL** field, enter the following URL: `https://pod_name/crmRestApi/collaborationResources/latest/commands`

Here, `pod_name` is the name of the Fusion Sales and Service instance provisioned for you.

5. Provide an appropriate **Short Description**. For example: `Get my first 5 opportunities`
6. You can leave the **Usage Hint** field blank, as additional parameters aren't supported.
7. Click **Save** to save the command or click **Cancel** to discard it.

## Limitations for Activity Type When a Slash Command Is Used

For each opportunity returned by the `/ec-my-opportunities` slash command, the user can create a task, log a call, or schedule an appointment. These activities are created on the opportunities. In Fusion Sales and Service, you can add a custom lookup as the parent of the Activity Type lookup to further constrain the list of activity types.

But the Slack integration is unable to constrain the list of values for the activity type based on custom parent lookup type. So the users see an error if they select an activity type that isn't available for the activity they're creating.

## Update Functional Setup Manager with Credentials of Your Slack App

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

To update the Functional Setup Manager (FSM) in the Fusion application with the credentials of your Slack app:

1. In the Settings region of your Slack app, click **Basic Information**.
2. From the App Credentials section of the Basic Information page, copy the values of the **Client ID**, **Client Secret**, and **Signing Secret**.
3. Sign in to your Fusion application as a setup user or administrator.
4. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
5. Click **Search** from the list of displayed tasks.
6. Search for and select **Manage Collaboration Network Credentials**.
7. In the Manage Collaboration Network Credentials page, specify the **Client Identifier**, **Client Secret**, and **Signing Secret** that you copied from your Slack app.
8. Click **Save and Close**.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Create a Slack Channel in Your Fusion Application

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

For each of your Slack workspaces, you must create a Slack channel in Fusion Sales and Service. So if you have multiple Slack workspaces, you have multiple Slack channels in Fusion Sales and Service.

To create a Slack channel in the Fusion application:

1. Sign in to the Fusion application as a setup user or administrator.
2. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
3. Click **Search** from the list of displayed tasks.
4. Search for and select **Manage Communication Channels**.
5. In the Service Channels page, click **Create Channel**.
6. In the Create Channel window:
  - o The **Stripe Code** is set as **CRM** by default.
  - o Select the **Purpose** as **Collaboration**.
  - o Select the **Channel Type** as **Slack**.
  - o Click **Authorize**.

A new browser tab opens and the following page is displayed in Slack: Sign in to your workspace.

7. In the space provided below the **Enter your workspace's Slack URL** prompt, enter the workspace for which you want to create the Slack channel.
8. Click **Continue**.
9. Sign in to your Slack workspace as an administrator.
10. Complete the next steps on Slack to provide permissions.
11. Click **Authorize**.

A message is displayed, stating that the authorization is complete.

12. Close this browser tab and return to the channel creation page in Fusion Sales and Fusion Service.  
Notice that the **Account Name**, **Channel Code**, and **Display Name** are prepopulated.
13. Click **Save and Close** to save the Slack channel.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Enable Notifications to Slack

**This is a required step from "How You Set Up a Slack Channel for Your Fusion Application".**

All outbound messages from Fusion Sales and Fusion Service to Slack use the notifications framework. So, for outbound messages to be delivered to Slack, you must enable notifications.

For more information about how to enable notifications, see "Enable Notifications for Service Requests".

### Related Topics

- [How do I enable notifications?](#)
- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Add a Slack Contact Point for Your Sales Representatives Who Use Slack

**This is a required step for Sales from "How You Set Up a Slack Channel for Your Fusion Application".**

**(Required for your sales application, Not Required for your service application)**

Every Slack user has a unique Slack user ID. When a sales representative executes a slash command in Slack, his information needs to be retrieved from Fusion Sales and displayed in Slack. For this to happen, you must add a Slack contact point in Fusion Sales for every sales representative who uses Slack. This way, you map the unique Slack user ID of each sales representative to his resource record in Fusion Sales.

1. In the Navigator for Fusion Sales, click **Resource Directory**.
2. Click the Tasks panel tab.
3. In the Resources region, click **View Resources**.
4. On the View Resources page, navigate to the **Resource Name** field.
5. Type the name of the resource to whom you want to give the capability to execute Slash commands.
6. Click **Search**.
7. In the Search Results area, click the record of the sales representative.
8. On the Resource page of the sales representative, click the Additional Contact Information tab.
9. Click the plus icon to create a new contact point.
10. In the **Create Contact Point** dialog box, in the **Contact Point Type** drop-down list, select **Social network**.
11. In the **Purpose** field, select **Work**.
12. In the **Social Network** drop-down list, select **Slack**.
13. In the **User ID** field, find and enter the Slack user ID of the service representative as follows:
  - a. In the Slack workspace, in the Direct Messages area, select the name of the sales representative.
  - b. In the adjacent pane, click the name of the sales representative.
  - c. Click **View profile**.
  - d. In the **Workspace Directory** panel that's displayed, click the ellipsis symbol.
  - e. Select **Copy member ID** along with the ID.
  - f. Paste this member ID in the **User ID** field in the **Create Contact Point** dialog box.
  - g. Click **OK**.

When the sales representative now executes a slash command in Slack, his resource record in Fusion Sales is identified based on his Slack user ID. And the query is executed on his behalf. The information from his record in Fusion Sales is then displayed in Slack.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Set Up a Scheduled Process to Synchronize Slack Users

This is a required step for Service from "How You Set Up a Slack Channel for Your Fusion Application".

(Required for your service application, Not Required for your sales application)

To set up a scheduled process to synchronize Slack users:

1. In the Navigator for your Fusion application, click **Scheduled Processes**.
2. In the Overview page, click **Schedule New Process**.
3. Specify the name as **Sync All Slack Resources**.
4. Click **Advanced**.
5. Schedule the job to execute on a recurring basis.

You have now completed the setup of the Slack channel for collaboration. While composing messages in the Messages tab of an SR, all the Slack channels and users for a corresponding workspace appear in the **To** drop-down list.

### Related Topics

- [How You Set Up a Slack Channel for Your Fusion Application: Method 2](#)
- [Use the Slack Channel for Collaboration](#)

## Send Additional SR Fields to Slack

### Send Additional Fields When an SR Is Forwarded to Slack

When an agent forwards a service request (SR) to Slack, the following fields from the SR are automatically displayed in Slack. These fields are fixed and you can't change them.

- Title of the SR
- Name of the person or agent who creates the message
- SR number as a link
- Problem Description

As an administrator, you can also define additional fields that you want to send to Slack.

**Note:** Along with the SR fields, the message typed by the agent while forwarding the SR is also displayed in Slack. The message content is always displayed at the end, after all the fields.

To send additional fields when an SR is forwarded to Slack:

1. Sign in to the application as a setup user or administrator.
2. In the Setup and Maintenance Work area, go to the following:
  - Offering: Service
  - Functional Area: Communication Channels

- Task: Manage Communication Channels
- 3. In the Service Channels page, select the Slack channel that you created.
- 4. Click the link in the **Account Name** column.
- 5. In the Edit Channel window, navigate to the **Additional SR Attributes for Forward** field.
- 6. Click **Select Additional SR Fields**.
- 7. In the **Search** field of the **Search and Select** window, type the name of the field that you want to select from the **Available Attributes** pane.
- 8. Click the Search icon.
- 9. From the displayed list of attributes, click the one that you want to add.  
The attribute is added to the **Selected Attributes** pane.
- 10. Click **OK**.
- 11. Click **Preview Message** to view the preview.

The preview in Slack is displayed in a Message Formatting page, which opens in a new browser tab. You can view the preview and add or remove fields as required.

**Note:** Fields having a value up to 64 characters in length are displayed as two columns in Slack. If the value of a field is greater than 64 characters, it's displayed as one column.

## Slack Notifications

### Send Notifications to Slack Using Groovy Triggers or Object Workflow

Notifications can be sent from Fusion Sales and Service to Slack by using groovy triggers or object workflow.

To understand how you can use groovy triggers to send notifications to Slack, see the following topics:

- [Define a Groovy Trigger to Send Notifications to Slack](#)
- [Examples of Groovy Scripts for Sending Notifications to Slack](#)

To send notifications to Slack by using object workflow, you must create the object workflow and select the Groovy Script action. For more information and examples, see "Object Workflows and Groovy Scripts: How They Work Together".

#### *Related Topics*

- [Define a Groovy Trigger to Send Notifications to Slack](#)
- [Examples of Groovy Scripts for Sending Notifications to Slack](#)
- [How Object Workflows and Groovy Scripts Work Together](#)

### Define a Groovy Trigger to Send Notifications to Slack

Before writing the groovy scripts, ensure that you complete these steps:

- Create a Slack Channel. For more information, see "Create a Slack Channel in Your Fusion Application".
- Enable notifications for service requests. For more information, see "Enable Notifications for Service Requests".

To define a groovy trigger to send notifications to Slack:

1. Sign in to the application as an administrator.
2. Ensure that you're in a sandbox.
3. Navigate to Application Composer.
4. In the **Application** field, select **CRM Cloud** from the drop-down list.
5. In the Object Tags region, select the **Service** check box.  
**Note:** If you're writing a groovy trigger on a Sales object, select the **Sales** check box.
6. Expand the **Service Request** object.
7. Click **Server Scripts**.
8. Select the Triggers tab.
9. Create an object trigger for Service Request Server Scripts.
10. Define your groovy trigger as described in "Examples of Groovy Scripts for Sending Notifications to Slack".

#### Related Topics

- [Create a Slack Channel in Your Fusion Application](#)
- [How do I enable notifications?](#)
- [Examples of Groovy Scripts for Sending Notifications to Slack](#)

## Examples of Groovy Scripts for Sending Notifications to Slack

Here are some examples of groovy scripts for sending notifications from Fusion Service to Slack:

### Trigger Example: SR Critical Check Box Change

Use the following code to trigger a notification to be sent to Slack when the Critical check box on the service request (SR) is updated:

**Note:** All the steps to set the HashMap in these examples are required to send notifications to Slack. Currently, Slack notifications don't use the Notification Preferences Manager. So it's necessary to pass the HashMap to the sendNotification method.

```
// TRIGGER TYPE: AFTER CHANGES POSTED TO DATABASE
// Notify #support channel in OraSvc workspace when the Critical check box in an SR is selected or
// deselected
int indexOfCF = adf.oldValue.getAttributeIndex('CriticalFlag')
def oldValue = adf.oldValue.getAttribute(indexOfCF,oracle.jbo.server.EntityImpl.TRANS_ORIGINAL_VERSION)
def newValue = getAttribute('CriticalFlag')

if (oldValue != newValue) {
    println("Triggering notification...") // For debugging purpose only
    try {
        def map = new HashMap()
        map.put("Channels", ["ORA_SVC_SLACK"])
        map.put("MessageText", "Test Message for a change to the Critical check box on the SR")
        map.put("ChannelAccountName", "A1B2C3D4F5") // This is a very important step to send notifications to
        // Slack. Pass the Account Name field for the Slack channel that you created
    }
}
```

```
map.put("SlackChannels",["@kanyuev", "#general", ...]) // This is also an important step. You can provide
one or more Slack channels or users here

adf.util.sendNotification(adf, map)
println("Success.") // For debugging purpose only
} catch (e) {
throw new oracle.jbo.ValidationException('Failure: ' + e.getMessage())
}
}
```

## Trigger Example: SR Created

Use the following code to trigger a notification to be sent to Slack when an SR is created:

```
// TRIGGER TYPE: BEFORE INSERT TO DATABASE
// Notify #support channel in OraSvc workspace when an SR is created
try {
def map = new HashMap()
map.put("Channels",["ORA_SVC_SLACK"])
map.put("MessageText","An SR is created")
map.put("ChannelAccountName", "A1B2C3D4F5") // This is a very important step to send notifications to
Slack. Pass the Account Name field for the Slack channel that you created
map.put("SlackChannels",["@kanyuev", "#general", ...]) // This is also an important step. You can provide
one or more Slack channels or users here

adf.util.sendNotification(adf, map)
} catch (e) {
throw new oracle.jbo.ValidationException('Failure: ' + e.getMessage())
}
```

### Related Topics

- [Define a Groovy Trigger to Send Notifications to Slack](#)

## Validate Whether Notifications Are Sent to Slack

You can validate if the notifications are sent to Slack by updating a service request (SR) in Oracle Fusion Service.

**Note:** Notifications to Slack can be sent for other objects as well, such as opportunity and custom objects.

## Validation Example: When You Use the Critical SR Check Box Change Trigger

If you use the Critical SR Check Box Change trigger, here's how you validate if a notification is sent from Oracle Fusion Service to Slack:

1. Sign in to Fusion Service.
2. Create and save an SR.
3. In the SR Summary tab, select the **Critical** check box and save the SR.
4. Verify whether you have received a notification in Slack.

## User Credentials for Executing Commands

### Set Up User Credentials for Executing Commands from a Collaboration Network

To execute the Oracle Fusion Sales and Service REST API commands from a collaboration network such as Slack, you can use a predefined Application ID user. The predefined Application ID user has many privileges.

You also have the option to set up the user credentials instead of using a predefined user. The user that you set up can have only those privileges required to execute the commands from a collaboration network such as Slack.

To set up the user credentials to execute the commands from a collaboration network such as Slack:

1. Sign in as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area and open the Tasks panel tab.
3. Search for and select the Manage Collaboration Network Credentials task.
4. On the Manage Collaboration Network Credentials page, navigate to the Fusion Sales and Service Application Credentials region.
5. Enter the appropriate user ID and password.

## FAQs About Slack Integration

### Frequently Asked Questions (FAQs) for Slack Integration

This section contains some frequently asked questions (FAQs) when setting up and maintaining slack integration. Scroll or search to find answers to common questions.

#### Why is there a banner recommending I update the permission scopes for my Slack app?

When you're editing a Slack app, you may see a banner recommending you to update the permission scopes for your app. If you see this banner, then it means that you're using the classic version of the app, which uses a coarser permission scope.

The latest version uses fine-grained permission scopes, and you can request only the specific scopes required by your app. If you prefer to continue using the coarser scope, you don't have to do anything. But if you prefer to use the fine-grained permission scopes, then here's what you must do:

1. On the Slack website, navigate to the page where you manage your applications.

**Note:** You must be an administrator of your Slack application.

2. You should see a banner indicating that you can start using a finer-grained scope.
3. Click the link in the banner and follow the steps to upgrade your Slack app.
4. In your Fusion application, navigate to the **Setup and Maintenance** work area.
5. Open the **Tasks** panel tab.
6. Click Search from the list of displayed tasks.
7. Search for and select the **Manage Communication Channels** task.
8. Reauthorize your Slack channel.

After the channel is authorized, the integration starts using the finer scope.

#### *Related Topics*

- [Add Scopes to Your Slack App](#)

# 12 Social Channels

## Configure Social Channels

### How You Set Up Social Channels

Using the social channel you can serve customers faster by reaching them where and when they engage with you on social networks. With the social channel you can create service requests (SRs) from social network posts, provide customer service through the social network, and

To use the social channel, you have to integrate Fusion Service with a platform that manages your social network posts, such as Oracle Social Cloud, using Oracle Integration Cloud. Once that integration is set up, you can then set up the social channel for SRs.

As an administrator, you can configure the social channel in the service application to enable your users to create SRs based on social network posts. Social posts from the third-party social relationship management software are added as SRs in the service application and are assigned to agents.

Here's a brief overview of the steps required to set up social channels in the service application.

1. Create social channels for SRs in the service application.
2. Integrate Fusion Service with Social Cloud.

See "Integrate Social Channels" for information about creating an integration user, importing the integration package, creating connections, and activating the integrations for the social channel.

### Process Flow for Social Posts

Here's a sample process flow for social posts:

1. Community managers in Social Cloud send social posts to the service application and create SRs for a social post.
  2. Support agents review and respond to social posts (both public and private).
    - a. Service requests are created in the service application for social posts sent from Social Cloud.
    - b. Once an SR is created, the Social Cloud post is updated with the SR reference number.
    - c. Photos and videos added to social posts are displayed as attachments to service request messages.
    - d. Users can drill down on the attachments to view the photos and videos.
- Note:** To view attachments to private messages, users must sign in to Social Cloud.
3. Any new reply or comment by the customer to an existing conversation is automatically added to the existing SR. These messages are added as SR messages.
  4. Once an SR is resolved, the Social Cloud post is updated to indicate that the corresponding SR is resolved. If an SR is reopened after it's resolved, Social Cloud is also updated with the status change.

## Supported Social Networks

Fusion Service supports Facebook, Twitter, Instagram, Weibo, and WeChat social network channels. Here's a list of supported features for the various social network monitoring scenarios.

Here are the features supported for the social network monitoring scenarios.

Social Network Monitoring Scenarios	Facebook	Twitter	Instagram	Weibo	WeChat
Monitor public messages	Yes	Yes	Yes	Yes	No
Monitor comments and replies on public messages	Yes	Yes	Yes	Yes	No
Monitor private messages	Yes	Yes	Yes	Yes	Yes
Monitor replies to private messages	Yes	Yes	Yes	Yes	Yes

**Note:**

- If you're sending photos and videos with private messages on either Twitter or Facebook you must sign in to the Social Cloud application.
- Customers using Instagram can't post on the brand company page.
- Social Cloud doesn't retrieve attachments to a private message on Weibo.
- Social Cloud doesn't support monitoring of public messages on WeChat.

This table shows you the supported features for social response scenarios:

Social Response Scenarios	Facebook	Twitter	Instagram	Weibo	WeChat
Reply to public messages	Yes	Yes	No	Yes	No

Social Response Scenarios	Facebook	Twitter	Instagram	Weibo	WeChat
Reply to comments and public messages	Yes	Yes	Yes	Yes	No

And this table shows features supported for other scenarios:

Other Scenarios	Facebook	Twitter	Instagram	Weibo	WeChat
Update Social Cloud conversation with SR reference number for a social post	Yes	Yes	Yes	Yes	Yes
Update Social Cloud conversation when an SR is resolved	Yes	Yes	Yes	Yes	Yes
Update Social Cloud conversation when an SR status changes from Resolved to In Progress	Yes	Yes	Yes	Yes	Yes

## Fields Mapped between Social Cloud and Fusion Service

Social posts sent by community managers are created as social SRs (SRs with channel type as Social).

This table describes the field mapping between Social Cloud and Fusion Service.

Fusion Service Field	Value	Source
Channel Type	Social	All social posts
Channel	Name of the social network where the customer posted the message (for example, Facebook)	Social Cloud
SR Title	First 400 characters of the social post content	Social Cloud
Problem Description	First 1000 characters of the social post content	Social Cloud
Primary Contact	If a contact point is found for the social post author, the primary contact is set in the SR	Auto populated by Fusion Service

Fusion Service Field	Value	Source
SR Account	The primary account associated with the primary contact of the SR (if exists)	Auto populated by Fusion Service
SR Creation Date	<b>Current date</b>	Auto populated by Fusion Service
Service Request Message	Every message or post in the conversation with the customer is created as an SR message	Social Cloud post content

### Related Topics

- [How do I update existing setup data?](#)

## Create Social Channels for Service Requests

Before using the Social feature, you must first create the social channel in the service application. Here's how:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Communication Channels

The Service Channels page is displayed.

2. Click **Create Channel**.
3. In the **Create Channel** dialog box, do the following:
  - a. From the **Stripe Code** drop-down list, select **CRM**.
  - b. From the **Channel Type** drop-down list, select **Social**.
  - c. From the **Network** drop-down list, select a supported social network.
  - d. In the **Account Name** field, enter the social handle or fan page name of the selected social network. This must match the social resource name in the integrating Social Cloud application.
  - e. Verify whether the generated **Channel Code** is unique.
    - **Channel Code** is automatically generated by the application. You can use this autogenerated code as is, and you must modify it only when it's not unique. To make it unique, you can add any set of characters.
    - **Channel Code** is used by the application to uniquely identify a channel when exporting and importing channels from one environment to another.
  - f. Enter a **Display Name** to provide information about the channel, such as the name of the deploying company for which the channel is being configured.
  - g. From the **Business Unit** drop-down list, search for and select a business unit (BU), when multiple business units are configured.

The BU set in the scope is selected by default, but you can select a different BU. This field is visible only if the multiple business units feature is enabled.



Field	What you enter or choose
Hire Date	Choose today's date.
User Name	The user name of the user.
Person Type	Choose Employee from the drop-down list.
Legal Employer	Chose the legal employer from the drop-down list.
Business Unit	Choose a valid business unit.
Send user name and password	Choose this option.
User Log in	Enter the user name that you created.
Password	Enter the password for the user.

5. Save the user details.

An email is sent to the address after the user has been created.

6. Check the user credentials sent in the email, sign in as the new user, and reset the password.

After creating the user, sign in to the security console and add the following roles to the integration user

- o SOA Operator
  - This is a duty role. It can't be directly assigned to a login using security console. Create an enterprise role as a parent of SOA Operator and associate that enterprise role to the integration user.
- o Customer Service Representative
- o Resource

## Import the Integration Package for the Social Channel

After setting up Fusion Service and creating the integration user with the required privileges, you then set up the Integration Cloud integration package.

Before you start setting up Integration Cloud, go to the Oracle Marketplace ([https://cloudmarketplace.oracle.com/marketplace/en\\_US/homePage](https://cloudmarketplace.oracle.com/marketplace/en_US/homePage)) and search and download the Fusion Service to Social Cloud integration package. For more information about Oracle Marketplace, see the Related Topics link for Oracle Cloud Marketplace documentation.

The Integration Cloud integration package supports the following:

- Inbound
  - Create an SR in Fusion Service for a social post.
  - Add a social post comment as a message to an SR.
- Outbound
  - Respond to a customer on the social network that they posted on.

*Related Topics*

## Import SSL Certificates for Fusion Service and Social Cloud Integration

You must import the SSL certificates before you configure and activate the connections.

To import SSL certificates for Fusion Service, see "Uploading an SSL Certificate" in the *Using the Oracle Sales Cloud Adapter* guide, available at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icssc/index.html>.

To import SSL certificates for Social Cloud, see "Uploading an SSL Certificate" in the *Using the REST Adapter* guide, available at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icsre/index.html>.

## Activate the Connections to Fusion Service and Social Cloud

After you download the package and import the SSL certificates, connect to Fusion Service using the sales adapter. The procedure for importing the adapter is described in the topic "Creating an Oracle Sales Cloud Adapter Connection", available at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icssc/index.html>.

### Configure the Connection to the Fusion Service Instance

Here's how you configure the connections to your Fusion Service instance.

1. Sign in to the Integration Cloud application using your integration user credentials.
2. Click the **Connections** icon on the home page.
3. Ensure that Oracle Fusion Service is listed on the connections page.
4. Click **Oracle Fusion Service** to view the details.
5. Click **Configure Connectivity** and enter the following information in the **Connection Properties** dialog box:
  - OSC Service Catalog WSDL URL: Enter the service catalog URL on your Fusion Service instance
  - (Optional) OSC Event Catalog URL: Enter the event catalog URL on your Fusion Service instance
6. Click **OK**.
7. Click **Configure Security** and enter the following information:
  - **Security Policy**: Enter `Username Password Token`.

- o **User name:** Enter the integration user name.
  - o **Password:** Enter the password for the integration user.
  - o **Confirm Password:** Reenter the password.
8. Click **OK**.
  9. Click **Test** on the **Actions** bar of the service application page.
  10. Ensure that the connection test is successful and the status meter shows 100%.
  11. Click **OK**.

## Configure the Connection to Social Cloud

Here's how you configure the Oracle Social Cloud connection:

1. Sign in to the Integration Cloud application using your integration user credentials.
2. Select **Connections** and then create a new connection for **Oracle Social Cloud**.
3. Enter the connection details from this table:

Section	Details
Connection Properties	<ul style="list-style-type: none"> <li>o <b>Connection Type:</b> REST API Base URL</li> <li>o <b>TLS Version:</b> Not Applicable</li> <li>o <b>Connection URL:</b> https://srm-api-temp.sl05hpo.oracle.com</li> </ul>
Security	<ul style="list-style-type: none"> <li>o <b>Security Policy:</b> OAuth Custom Three Legged Flow</li> <li>o <b>Authorization Request:</b> Enter the authorization request URL. The URL must have the following parameters defined:                             <ul style="list-style-type: none"> <li>- scope=engage</li> <li>- response_type=code</li> <li>- redirect_uri=\${redirect_uri}</li> <li>- To get your client ID, see <i>Register your Client Application</i> for procedure.</li> </ul> <p>For example, a sample authorization request URL looks like this: <code>https://gatekeeper.srm-integration.pp1.oraclecloud.com/oauth/authorize?scope=engage&amp;response_type=code&amp;redirect_uri=\${redirect_uri}&amp;client_id=a9a5fb2b482545172fd6101e3c16cc1e9ba140742aa630b6c3e90</code></p> </li> <li>o <b>Access Token Request:</b> Enter the access token request with the correct URL, client ID, and client secret. For example, a sample access token request looks like this: <code>-X POST -H 'Content-Type: application/x-www-form-urlencoded' -d 'false' 'https://gatekeeper.srm-staging.pp1.oraclecloud.com/oauth/token?code=\${auth_code}&amp;client_id=a9a5fb2b482545172fd6101e3c16cc1e9ba140742aa630b6c3e90&amp;redirect_uri=\${redirect_uri}&amp;grant_type=authorization_code'</code></li> <li>o <b>Refresh Token Request:</b> Enter the refresh token request with the URL, refresh token, client ID, and client secret. For example, a sample access token request looks like this: <code>-X POST -H 'Content-Type: application/x-www-form-urlencoded' -d 'false' 'https://gatekeeper.srm-staging.pp1.oraclecloud.com/oauth/token?refresh_token=\${refresh_token}&amp;client_id=a9a5fb2b482545172fd6101e3c16cc1e9ba140742aa630b6c3e90'</code></li> </ul>

4. Save the configuration and test the connection.

## Activate the Fusion Service to Social Cloud Integrations

After you configure your connections, you must then activate these integrations:

- **Social Cloud Conversation to Fusion Service**  
This integration creates Fusion Service social post records from Social Cloud conversation record and its related posts by mapping the object attributes of the two applications. Fusion Service further processes the social posts to create service request and service request messages.
- **Fusion Service Service Request to Social Cloud**  
This integration updates the Social Cloud conversation object with the service request details.
- **Fusion Service Reply to Social Cloud**  
This integration updates the Social Cloud conversation with the response from Fusion Service user to the social customer. Social Cloud in turn sends the response to the customer on the social network.
- **Fusion Service Update SR to Social Cloud**  
This integration updates Social Cloud conversation with the Fusion Service service request number.
- **Fusion Service Sync SR to Social Cloud**  
This integration updates the Social Cloud conversation with the service request reference number from Fusion Service. It's called when a Fusion Service user sends a response.

Here's how you activate the integrations:

1. Sign in to the Integration Cloud application using your integration user credentials.
2. Click the **Integrations** icon on the home page.
3. Search for each integration by its name.
4. Click the **Activate** button on each integration.
5. Select the **Enable detailed tracing** option, and click **Activate** on the confirmation dialog box.
6. Ensure that the flow has been activated successfully.
7. Repeat the previous steps for each integration.

## Set Up the Integration Cloud Plug-in in Social Cloud

For more information about how to set up the plug-in in Social Cloud, see [Related Topics](#).

*Related Topics*

## Enter the CSF Key to Subscribe to SR Events

You must create a Credential Store Framework (CSF) key to subscribe to SR events in Fusion Service. This key is required by the event handler framework when it initiates the integration. The credentials of the integration are managed by the CSF key. Create the

*Related Topics*

## Sample Groovy Scripts for Social Channel

### Validate Agent's Response Character Count Script

This script validates whether an agent's response for the Twitter channel is less than or equal to 280 characters.

You must add this script as a validation rule to the Message object (child of Service Request object). You must also add a validation message that's displayed to the agents when their Twitter response is greater than 280 characters.

Use the following code as an example:

```
if(ChannelId == null){
    return true;
}
def channelVO = newView('ChannelVO')
channelVO.appendViewCriteria("ChannelId = '${ChannelId}'")
channelVO.executeQuery()
def networkType = null
if(channelVO.hasNext())
{
    def channelRow = channelVO.next();
    networkType = channelRow.getAttribute("NetworkTypeCd")
}
if(networkType == null || networkType != 'TWITTER') {
    return true
}
String messageContent = MessageContent.toString()
Long channelId = ChannelId
Long charCount = MessageContent.length();
String pattern = ~/(\http|https):\/\/[-a-zA-Z0-9+&@#\/%?~_!|:,.;]*~/
if(null == MessageContent)
return true;
String message = MessageContent.toString()
String[] tokens = message.split(" ")
for(int i=0;i<tokens.size();i++){
    if(tokens[i].matches(pattern)) {
        //this is an url
        Long urlLength = tokens[i].length()
        if(urlLength > 23) {
            charCount = charCount - (urlLength -23)
        }
        else {
            charCount = charCount + (23- urlLength)
        }
    }
}
if(charCount > 280)
return false
else
return true
```

## Validate Customer's Twitter Handle Script

This script validates whether the agent's response begins with the @mention of the customer's Twitter handle.

You must add this script as a validation rule to the Message object (child of Service Request object). You must also add a validation message that's displayed to the agents when their Twitter response is greater than 280 characters.

Use the following code as an example:

```
//Validation logic
//For channel other than social ignore
if(ChannelTypeCd != 'ORA_SVC_SOCIAL')
    return true
//For draft ignore
if(StatusCd == 'ORA_SVC_DRAFT')
    return true
//For message other than response ignore
if(MessageTypeCd != 'ORA_SVC_RESPONSE')
    return true
//Get the last social customer entry
def vo = newView('SrMessageVO')
def vc = newViewCriteria(vo)
def vcr = vc.createRow()
def vci1 = vcr.ensureCriteriaItem('MessageTypeCd')
vci1.setOperator('=')
vci1.setValue('ORA_SVC_CUSTOMER_ENTRY')
def vci2 = vcr.ensureCriteriaItem('ChannelTypeCd')
vci2.setOperator('=')
vci2.setValue('ORA_SVC_SOCIAL')
def vci3 = vcr.ensureCriteriaItem('SrId')
vci3.setOperator('=')
vci3.setValue(ServiceRequest?.SrId)
vc.insertRow(vcr)
vo.appendViewCriteria(vc)
vo.executeQuery()
def lastCustEntry=vo.first()
//Get the channel via
def channelViaList=lastCustEntry.channelCommunication
def channelVia = channelViaList.first()
// Using inbound object id as post id, find the social post
def postId = channelVia.InboundObjectId;
def key = key(postId);
def socialPostVO = newView('SocialPostVO')
def socialPosts = socialPostVO.findByKey(key, 1)
// do nothing if the social post is not found
if (socialPosts == null || socialPosts.size() == 0) {
    return true
}
// use the first social post
def socialPost = socialPosts[0];
def networkType = socialPost.PostChannelCd
//do nothing if other than twitter
if(networkType != 'TWITTER') {
    return true
}
//If message content is not having twitter handle as prefix then error out.
def twitterHandle = '@' + socialPost.PostUser + ' '
if(MessageContent!= null && !startsWith(MessageContent.toString(),twitterHandle)) {
    return false
}
}
```

```
return true;
```

## Map Social Post Tags Script

Tags associated with social posts in Social Cloud can be sent to Fusion Service.

These tags aren't displayed in the application, but can be used in Groovy scripts. This script maps social post labels in Social Cloud to social post tags in Fusion Service. Agents can use these tags to take appropriate actions on the SR.

For example, use the following code to set the SR severity to *SEV1* when the social post is tagged as urgent:

```
// do nothing if there are no channel vias
if (!channelCommunication.hasNext()) {
    return;
}

// use the first channel via
def channelVia = channelCommunication.next();

// do nothing if the channel via is not a social channel type
if (channelVia.ChannelTypeCd != 'ORA_SVC_SOCIAL') {
    return;
}

// using inbound object id as post id, find the social post
def postId = channelVia.InboundObjectId;
def key = key(postId);
def socialPostVO = newView('SocialPostVO');
def socialPosts = socialPostVO.findByKey(key, 1);

// do nothing if the social post is not found
if (socialPosts == null || socialPosts.size() == 0) {
    return;
}

// use the first social post
def socialPost = socialPosts[0];

// iterate over tags on the social post
def socialPostTags = socialPost.SocialPostTags;

while (socialPostTags.hasNext()) {
    def tag = socialPostTags.next();

    // One example: Set the SR Severity to SEV1 if social post is tagged with "urgent"
    if (tag.Tag == 'urgent') {
        setAttribute('SeverityCd', 'ORA_SVC_SEV1'); break;
    }
}
}
```

# 13 Service Entitlements

## Overview of Service Entitlements

### What are entitlements?

Service entitlements are benefits or privileges you provide to customers when you extend service to them.

A milestone is a type of entitlement that identifies service levels your organization has committed to its customers, and is tracked when providing service in the context of a service request.

Here's the ready-to-use milestones you get with the application:

- **First Response Metric:** Tracks how quickly you agree to respond to a customer after the service request is received.
- **Resolution Metric:** Tracks how quickly you must resolve the service request for the customer.

In addition, you can also set up administrator-defined milestones that define other service levels you want to track for your customers.

When you create a service request for a customer, milestones are automatically assigned to the service request based on the defined service coverages. You can apply milestones to a service request by defining the coverages as follows:

- **Standard Coverages**, which act as templates.
- **Default Coverages**, which associate the standard coverage templates with a customer (customer-level default), or specify a standard coverage template as a global default that's applicable to all service requests.
- **Subscription Coverages (or Service Contracts)**, which you can optionally create to apply coverages only to specific assets or products owned by a customer.

**Note:** New customers are automatically opted-in to use Subscription Management instead of Service Contracts. For existing customers implementing service entitlements for the first time, Oracle recommends the use of the subscription coverages. Customers already using Service Contracts are still supported, however new features such as product-based service level agreements (SLAs) are only available with Subscriptions. For more information, see [How do I enable subscription coverages for entitlements?](#) When the same milestone exists in coverages at multiple levels, the subscription (or contract) values take priority over customer-level default values, which in turn take priority over global default values.

To apply milestones for specific assets or products, you must set up Subscriptions (or Service Contracts), opt-in to use installed base assets from the common asset model, and allow an installed base asset to be picked on a service request. If you use Subscriptions (or Service Contracts), you specify the standard coverage on a contract line and identify which installed base assets or products are covered. When an installed base asset or product is selected on a service request, contract-based coverages are applied to the milestone determination. When a service request specifies an installed base asset or product that's covered on a subscription (or service contract), that corresponding coverage is automatically considered when applying milestones to the service request.

**Note:** For any service requests without a covered asset or product, the existing global and customer default coverages apply.

## Overview of the Milestone Lifecycle

Once milestones are assigned to a service request, they begin countdown to their respective due dates, and are monitored by the application automatically based on the configuration you have set up.

The **Milestone** object includes a **Status** field that indicates whether the milestone is being actively tracked, is paused, complete, or has been canceled. The **Milestone** object also includes two flags that are commonly used to trigger object workflow according to your business needs, for example to send an email notification to proactively notify the agent, or escalate the service request:

- The `WarnedFlag` is updated to **Y** when the milestone's time to expiration is within the warning threshold specified in the standard coverage.
- The `ComplianceFlag` is updated to **N** when the milestone reaches the due date or the time before completion, representing a milestone that has expired (it's no longer compliant).

In case you're wondering where you can get more details about the setup and configuration of milestones and coverages:

- The topic "Set Up Milestones and Coverages" provides the details to set up milestones and coverages using the delivered milestones and coverage criteria.
- The topic "Configure Milestones and Coverages" describes how to expand milestones and coverages to adapt them to your business needs.

## Milestones and Coverages

### How do I set up milestones and coverages?

You must set up milestones and coverages so that the ready-to-use milestones are automatically applied to service requests and monitored.

New customers are automatically opted-in to use Subscription Management instead of Service Contracts. For existing customers implementing service entitlements for the first time, Oracle recommends the use of the subscription coverages. Customers already using Service Contracts are still supported, however new features such as product-based service level agreements (SLAs) are only available with Subscriptions. For more information, refer to [How do I enable subscription coverages for entitlements?](#)

Here's the steps you require for this set up:

1. Manage milestone configuration (optional)
2. Create a coverage schedule (optional)
3. Create a standard coverage
4. Apply the standard coverage as global and customer defaults
5. Configure the scheduled process to monitor SR milestones
6. Add current milestone fields to the SR layout (optional)
7. Configure email notifications or other event actions from an object workflow (optional)

## Overview of Milestones and Coverages Configuration

The First Response Metric and Resolution Metric milestones are preconfigured for every implementation.

These milestones have predefined criteria that specify when the milestone starts, pauses, and completes. You can review these criteria and modify them if required, to match your business rules. To do this, use the **Manage Milestone Configuration** task in Setup and Maintenance.

After you set up the milestones and coverages using the standard process steps described in the "How You Set Up Milestones and Coverages" topic, you can cover a wider variety of scenarios and adapt milestone functionality to your specific business needs. Here's where you can get detailed information about the advanced configuration for milestones and coverages:

- The "Set Up Additional Condition Columns for Standard Coverage Entitlement Rules" and "Set Up Administrator-defined Milestones" sections provide information about managing milestone conditions, as well as creating your own milestones.
- The "Configure Milestones for Multiple Business Units" section provides information about how to configure milestones for multiple business units.
- The "Troubleshoot with Milestone Diagnostics" section provides information about reviewing milestone diagnostics for troubleshooting.

## What's a Coverage Schedule and how does it work?

A coverage schedule is a service calendar containing detailed time intervals that identify when a service request is expected to be worked.

Coverage schedules provide flexibility to define business hours and specific intervals during the year when different operating hours are offered. For example, you can define a specific interval such as a particular week or seasonal time period where you may extend service hours on specific days. You can also treat holidays or exceptions more specifically, such as offering shortened hours on some holidays, instead of a full day inclusion or exclusion.

To determine the due date and time for a milestone, time outside the specified intervals is skipped. For example, if your coverage schedule interval is 9:00 a.m. to 5:00 p.m. Monday through Friday, a milestone that started Friday at 4:00 p.m., which is due in 120 minutes, would be due 10:00 a.m. on Monday.

Coverage schedules can also contain holidays, nonworking times, or extended working hours, which identify days to be skipped or hours to be added when determining the due date. You must configure the coverage schedule exceptions before you create or modify a coverage schedule. In the previous example, when a milestone started 4:00 p.m. Friday and had 120 minutes until due, if Monday was identified as a holiday, the milestone would be due at 10:00 a.m. on Tuesday instead.

Here's how the application calculates the **Due Date** and **Time Remaining** fields that are displayed on the Service Request Milestone Details page:

- **Due Date:** The due date for a milestone is calculated using the schedule that's associated with the applicable entitlement or coverage rule. The schedule defines whether there are any hours of the day or week when the clock isn't running for the organization, such as evenings, holidays, lunch breaks, and so on.  
When a service request is updated, the application looks at the coverage rules and the associated schedule, calculates the date and time the milestone expires, and assigns the milestone to the service request. The

milestone due date is calculated based on the time the milestone starts, which may not be the same as the time the service request was created. The application displays this due date for that milestone on the Service Request Milestone Details page.

If the SR attributes change so that the milestone goes into a paused state, the clock stops running. The application captures the time spent on the milestone up until the milestone was paused, for future use. The due date for the milestone is no longer displayed, because it can't be determined until the milestone resumes the countdown. After the pause is lifted and the countdown resumes, the application recalculates the milestone due date. The recalculation is based on the original time you specified for that milestone when the SR was created, minus the cumulative time spent by the agent up to that point.

- **Time Remaining:** The **Time Remaining** field displays its value depending on whether the milestone is actively counting, paused, or overdue. The application doesn't show time remaining for milestones that are complete or canceled.

When the milestone is actively counting down, the exact due date is known. The **Time Remaining** field shows an approximation of the amount of time between the due date and the current time. This approximation is expressed in the largest indivisible unit of time and rounded down. For example, if the current time is 3:00 PM and the milestone is due at 4:05 PM, the time remaining shows 1 hour. If the current time is 10:00 AM and the milestone is due the next day at 11:00 PM, the time remaining shows 1 day.

When the milestone is paused and the due date can't be determined, the **Time Remaining** field identifies only the time left in the milestone. The time left is determined by calculating the total time specified in the coverage, minus the time spent so far. For example, a milestone that was set for 24 hours (based on the coverage rules), and that was active for 10.5 hours before it paused, will have 13.5 hours remaining for the duration of the time it's paused. The **Time Remaining** field uses the same approximation method as described for active milestones, so 13.5 hours is rounded down to show 13 hours. Again, the actual due date isn't in 13 hours, because it's unknown when the counting will resume and therefore how the schedule might affect the due date. The 13 hours is given as an approximation of the working time you will have once the milestone restarts.

When the milestone is overdue but still not complete, the Time Remaining field shows how much time has elapsed since the milestone expired. The profile option `ORA_SVC_SLA_INCLUDE_PAUSED_MINS_IN_TIMEREMAINING` indicates whether this calculation considers paused minutes in the calculation.

Excluding paused minutes ignores whether the milestone has paused after expiration, and results in a more accurate calculation of actual time elapsed and improved performance. Including paused minutes considers how much time was spent in the paused state after expiration and reduces the overdue time remaining value by that amount. This requires additional calculation, is less consistent with the calculation before expiration, and can impact performance.

**Note:** Oracle recommends setting this profile option to N and starting with release 23D, all implementations will have the value set to N. You can then change the value to Y if you want for backward compatibility.

A schedule named **24 by 7** is preconfigured for all implementations. This schedule doesn't specify holidays or downtime, so the due date for a milestone that uses this schedule, is calculated without skipping any time.

## How do I enable subscription coverages for entitlements?

Oracle recommends using subscription coverages. New customers are automatically opted-in to Subscription Management instead of Service Contracts. Existing customers who are implementing service entitlements should consider subscription coverages.

The **Manage Service Entitlements Using Subscription Coverages** feature is enabled by default for new instances. If this feature is enabled, the application uses Oracle Subscription Management Cloud to define entitlement calendars, coverages, and associated setup, and uses this setup at runtime to determine service request milestones.

Here's how you can enable this feature:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
2. Click **Change Feature Opt In**.  
Select the **Enable** check box in the Service Entitlements row.
3. Click **Done**.

## How do I create a coverage schedule?

To create your own coverage schedule calendars with the intervals and holidays specific to your business, do the following:

1. Sign in to the application as a sales administrator.
2. On the **Navigator**, click **Subscription Management**.  
The Subscriptions page is displayed.
3. Click **Subscription Configuration**.  
The Subscription Configuration page is displayed.
4. To create a coverage schedule, click **Entitlements Management > Manage Availability**.  
The Manage Availability page is displayed.

**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Manage Availability**.

5. (Optional) To add the holidays, nonworking times, or extended working hours that are applicable to the coverage schedule, click the **Exceptions** tab.
  - a. Click **Create** in the **Exceptions** pane to create a new coverage schedule exception, or select an existing entry and click **Duplicate** to copy and update it.
  - b. In the **Availability Exceptions** section, click **Add Event**.
  - c. Enter the name of the exception event, the date and times of the event, and the availability during the event.
  - d. Click **Save**.
  - e. (Optional) To delete an exception, click **Delete** in the **Exceptions** pane.

6. On the **Schedules** tab, click **Create** in the **Schedules** pane to create a new coverage schedule, or select an existing entry and click **Duplicate** to copy and update it.
7. Specify the following details:
  - o **Schedule Name:** Name of the coverage schedule.
  - o **Time Zone:** Time zone for which you're creating the coverage schedule.
8. In the **Date Intervals** section, create a coverage schedule interval with details of when the coverage schedule starts, ends, and the days of the week that are part of the interval.
  - o **Start Date** and **End Date:** Start and end dates for the coverage schedule interval.
  - o **Availability:** Working days, hours, and times, and break times for the selected days.
9. (Optional) To include exceptions in the coverage schedule, select an exception from the **Exceptions** drop-down list.
10. (Optional) To delete a schedule, click **Delete** in the **Schedules** pane.
11. Click **Save**.

You can create multiple coverage schedules and use them as needed in the standard coverage templates. For example, you might have a high severity service request milestone worked using a **24 by 7** schedule, but a lower severity service request milestone might use a different schedule that's only worked during normal business hours. For more details about using coverage schedules in standard coverages, see the "Create Standard Coverages" topic.

## How do I create standard coverages?

The standard coverage acts as a template that contains entitlement rules, which specify when milestones are due and for what conditions.

For example, high severity service requests may have earlier milestone times, and use a schedule with longer work hours and fewer holidays, than lower severity service requests.

1. On the Subscription Configuration page, click **Entitlements Management > Standard Coverage**.

The Manage Standard Coverage page is displayed.

2. Create a new coverage and select **Subscription Entitlements** as the **Entitlement Type**.

The Edit Standard Coverage page is displayed.

**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Standard Coverage**. Then select **Contracts Service Entitlements** as the **Entitlement Type**.

3. Select **Actions > Add Entitlements** to configure the entitlement rules structure. The **Entitlement Rules** dialog box is displayed.

Service request severity is automatically included as a condition column. If you want to vary milestones based on the service request channel, optionally, select **Channel Type** as an optional condition column.

- a. Click **Next**, and select all optional results columns to display all available metrics and thresholds.

You can optionally select only one of the milestones and its threshold if applicable. For example, if service requests that apply to this coverage shouldn't have a first response milestone tracked, you can deselect **First Response Metric** and **First Response Warning Threshold** from **Optional Results Columns**.

- b. Click **Finish** to apply the entitlement options and complete the configuration of the entitlement rules. The Edit Standard Coverage page is displayed.
4. Add entitlement rules for this coverage.
    - a. In the **Entitlement Rules** section, click the **Add Row** icon.
    - b. Specify the **Condition Columns (Severity, and if selected, Channel Type)**.

This row is applied when the service request values match the condition column values specified here.

The algorithm applying milestones to service requests requires that coverages never have more than one row with condition columns that match the service request. If you leave a condition column value blank, the null value acts as a wildcard, and then is matched against any service request value. While there are valid scenarios where this can be used, it's important to avoid having two lines that could match the same service request.

The following table shows an example of a valid use of a null value in standard coverage condition columns:

- In this valid example, a service request with high severity will only match line 1, regardless of the channel.
- A service request with low severity will only match line 5, regardless of the channel.
- The medium severity service request can only match one of lines 2 through 4, depending on the channel type.

Line Number	Severity	Channel Type
1	High	Blank
2	Medium	Phone
3	Medium	Email
4	Medium	Chat
5	Low	Blank

Line Number	Severity	Channel Type

The following table that shows an example of an invalid use of a null value in standard coverage condition columns:

- This invalid example shows a situation where the medium severity service request with a phone channel matches lines 2 and 4.
- Similarly, a medium severity service request with the email channel matches lines 3 and 4.
- In both cases, the service request won't have any milestones applied because more than one line from a single coverage matches the service request.

Line Number	Severity	Channel Type	Comments
1	High	Blank	
2	Medium	Phone	Medium, Phone would match this line
3	Medium	Email	Medium, Email would match this line
4	Medium	Blank	Medium, Phone would also match this line  Medium, Email would also match this line
5	Low	Blank	

To configure the behavior of null values in a coverage, select the **Allow Null** and **Null is Wildcard** check boxes for the selected matrix class. You will find these check boxes on the Edit Matrix Class: Subscription Entitlements page, **Condition Columns** section. For more information about using these properties on condition columns, see the section "Set Up Additional Condition Columns for Standard Coverage Entitlement Rules".

- Specify the **Result Columns (Calendar)**, along with the metric and threshold values for each milestone.
  - From the **Calendar** drop-down list, select the coverage schedule to use for calculating the milestones' due date.
  - For each milestone, enter the metric in minutes, which is used with the schedule to identify when the milestone is due.
  - Enter the corresponding threshold value in minutes. This threshold specifies the number of minutes before expiration that the milestone's `WarnedFlag` is set to **Y**.
- Click **Save**.

- e. Optionally, you can add multiple entitlement rules to a standard coverage.

Each entitlement rule row is checked against the service request values, and if a service request matches all condition column values, that rule's milestone results (values and schedule) are used to calculate the milestone due date.

## How do I create default coverages?

You use default coverage to apply a standard coverage template to specific customers, or globally to all customers.

When a service request is evaluated to assign milestones, the application considers all global coverages, and customer default coverages setup for the customer specified on the service request. If a milestone is applicable from both a global default and a customer default coverage, the application uses the customer default coverage values over the global defaults.

1. On the Subscription Configuration page, click **Entitlements Management > Default Coverage**.

The Manage Default Coverage page is displayed.

**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Default Coverage**.

2. Click **Create** to add a new coverage.
3. Select the **Default Level** for the coverage:
  - o Select **Global** to assign the coverage to all customers.  
Then select the standard coverage in the **Coverage** column that you want to apply to all customers.
  - o Select **Customer** to assign the coverage to a specific customer.  
Then select the customer in the **Default Level Value** column, and then select the standard coverage in the **Coverage** column that you want to apply to that customer.
4. Enter the start and end date for the coverage.
5. Click **Save**.

## How do I monitor milestones?

You configure the Monitor Service Request Milestones scheduled process to monitor the service request milestone status, and set the job frequency to run the job after the specified time interval.

This process ensures that the service request and milestone status are up-to-date and sends an email notification if compliance issues or warning flags are found. The recommended frequency for running this job is 10 minutes.

## How do I expose milestones in the SR layout?

You can modify the service request layout to show the milestones as a part of the service request details.

Fields shown at the service request level represent the next milestone due for the service request. Note: The time remaining field is an approximation and it's rounded down so that agents don't think they have more time than they actually do. To expose current milestone fields on the service request layout, create a user-defined layout in Application Composer, and add the MilestoneID field to the Service Request Summary page.

## How do I enable email notifications to monitor milestones?

You can configure email notifications to warn required teams and managers that a milestone is about to expire, or email notifications can be used to escalate a service request when a milestone expires.

After you set up the scheduled process, you can configure object workflows to perform actions when a milestone's WarnedFlag is set to **Y** or ComplianceFlag is set to **N** (when the milestone expires).

1. Sign in to the application as an administrator.
2. Navigate to **Application Composer** and then click **Common Setup > Email Templates**. The Email Templates page is displayed.
3. Click **Create** to create a new template. The Create Email Template page is displayed.
4. From the **Object** drop-down list, select **Milestone**.
5. Specify the **Name**, **Email Subject**, and **Email Body** for the content of the email you want to send.
6. Click **Save and Close**.
7. After you create the template, Click **Navigator > Configuration > Sandboxes**.
8. Select and enter a sandbox.
9. In **Application Composer** select **CRM Cloud** in the **Application** drop-down list, and then select **Service** as the **Object Tags** option.
10. Click **Object Workflows**. The Object Workflows page is displayed.
11. Click **Create** to create a new object workflow. The Create Object Workflow page is displayed.
12. From the **Object** drop-down list, select **Milestone**.
13. Enter the **Name** and **Description** for the object workflow.
14. Specify the **Event Point** and **Condition** for the milestone object workflow.  
For example, to trigger a workflow action when the `WarnedFlag` is set to **Y**:
  - a. For the **Event Point** option, select **When a record is updated**.
  - b. In the **Condition** field, enter the following expression:

```
if (isAttributeChanged('WarnedFlag') && WarnedFlag=='Y')
return true;
```
15. Select the action you want to perform as part of the workflow. You can set up **Email Notification** and **Field Updates** for the milestone.
  - a. In the **Email Notification** section, click **Create** to add a new notification.
  - b. Specify the schedule and addresses to which you want to send the notifications.
  - c. Click **Save** to save the milestone object workflow.
16. Republish the sandbox in which you created the object workflow.

You can create a script for specific aspects of the workflow, such as looking up the assignee and assignee manager details for sending the notification. Here's an example script you can use to get the assignee and assignee manager details and populate the **Address** field for the email notification.

```
def resourceVO = newView('Resource')
resourceVO.appendViewCriteria("PartyId = ${AssigneePartyId}")//party id of SR assignee
resourceVO.executeQuery()
```

```
def mgrPartyId
while (resourceVO.hasNext()) {
def curResourceRow = resourceVO.next()
mgrPartyId = curResourceRow.ManagerPartyId
}
return mgrPartyId
if (mgrPartyId != null) {
def resourceMgrVO = newView('Resource')
resourceMgrVO.appendViewCriteria("PartyId = ${mgrPartyId}")
resourceMgrVO.executeQuery()
def mgrEmailId
while (resourceMgrVO.hasNext()) {
def curResourceMgrRow = resourceMgrVO.next()
mgrEmailId = curResourceMgrRow.EmailAddress
}
return mgrEmailId
}
}
```

## Can I view an expired milestone sample script?

This is sample code to trigger a notification to be sent to the recipient specified in the Notification Preferences page when a milestone expires.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Milestone > Server Scripts.

**Note:** This example uses `warnedFlag`. However, you can also use `complianceFlag` for similar results.

```
/* DISCLAIMER: This trigger is provided only as a reference.
* TRIGGER TYPE: Before Update in Database
* OBJECT: Milestone (child of Service Request)
* Use Case: Send a notification to the assignee when an SR milestone is expiring.
* Note: You can override the Notification Text and Recipients using the Notification Preferences page.
*/

if (isAttributeChanged('WarnedFlag') && WarnedFlag=='Y') {
try {
def recipientPartyId = SrAssigneePartyId
def messageText = 'An SR milestone notification (default message).'

```

# Set Up Additional Condition Columns for Standard Coverage Entitlement Rules

## Overview of Condition Columns

The application has a default entitlement type called Subscription Entitlements (or Contracts Service Entitlements), which is a matrix class, and a corresponding service mapping that you select when you create your standard coverage.

This default matrix class defines the structure of the entitlement rules for the standard coverage, including the condition columns (**Severity** and **Channel Type**), and result columns (**Calendar**, and milestone values and warning thresholds). Condition columns in the coverage are compared to field values in a service request to determine which line is applicable, and the result columns display the schedule, milestones, and thresholds that are applied.

You can use other columns from the service request as condition columns in coverages, by editing the service mapping and creating your own matrix class. To do this, first modify the service mapping to add the intended attribute. After you modify the service mapping, create a matrix class including the attributes, and then select the matrix class as the entitlement type for a standard coverage.

## How do I create a service mapping?

Here's how you create a service mapping:

1. On the Subscription Configuration page, click **Dynamic Matrix Configuration > Manage Service Mappings**. The Manage Service Mappings page is displayed.
2. Click **Subscription Entitlements**. The Edit Service Mapping: Subscription Entitlements page is displayed.  
**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Manage Service Mappings > Contracts Service Entitlements**.
3. On the **Entities** tab, select **ServiceRequest**.
4. In the **ServiceRequest: Details** section, click **Add Row** to add your attribute and select the details, for the mapping.  
**Note:**
  - All attribute names must have the suffix **\_Custom**.
  - Ensure that **Write** is disabled for the selected attribute.
5. Click **Save**.
6. Click the **Sources** tab (on the same page, Edit Service Mapping: Subscription Entitlements).
7. In **Source**, select **ServiceRequest**.

8. Select **ServiceRequest** in the **ServiceRequest: Details > Entity Mappings** tab.
9. On the **Entitlement: Details > Attribute Mappings** tab, click **Add Row** to create the mapping for the new attribute.
10. Select the attribute that you created in step 4 from the **Attribute** drop-down list and enter the related **View Object Attribute** of the service request.  
**Note:** Ensure that **Write** is disabled for the selected attribute.
11. Click **Save**.
12. Click the **Services** tab (on the same page, Edit Service Mapping: Subscription Entitlements).
13. Select **ServiceRequest** in the **GetSubscriptionEntitlements: Details > Entities** tab.
14. In the **ServiceRequest: Entities** section, click **Add Row** to create the mapping for the new attribute.
15. Select the attribute that you added in Step 4 from the **Attribute** drop-down list and enter the values.  
**Note:** Ensure that **Write** is disabled for the selected attribute.
16. Click **Save and Close**.

## How do I set up a milestone based on a field I created?

The default entitlement type Subscription Entitlements (or Contracts Service Entitlements), is a matrix class. A corresponding mapping is selected when you create your standard coverage. Here's how you create a matrix class and add additional conditional columns.

This default matrix class defines the structure of the entitlement rules for the standard coverage, including the condition columns (Severity and Channel Type), and result columns (Calendar, and milestone values and warning thresholds). Condition columns in the coverage are compared to field values in a service request to determine which line is applicable, and the result columns display the schedule, milestones, and thresholds that are applied.

You can use other columns from the service request as condition columns in coverages, by editing the service mapping and creating your own matrix class. To do this, first modify the service mapping to add the intended attribute. After you modify the service mapping, create a matrix class including the attributes, and then select the matrix class as the entitlement type for a standard coverage.

1. On the Subscription Configuration page, click **Dynamic Matrix Configuration > Manage Matrix Classes**.  
The Manage Matrix Classes page is displayed.  
**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Manage Matrix Classes**.
2. Duplicate the **Subscription Entitlements** (or **Contracts Service Entitlements**) matrix class. You can also edit a matrix class you previously created, or create a new matrix class.
3. On the Edit Matrix Class page for the selected matrix class, in the **Condition Columns** section, click **Add Row** to add a new condition column for the mapping that you created in the previous service mapping procedure. This condition column displays in the entitlement rules along with the default columns.
4. Enter the **Name** of the column and the **Source Code Name**.
5. In the **Compare to Attribute** column, select the attribute that you created in the previous service mapping procedure.
6. In the **Domain** column, click **Edit Domain** and select a domain value corresponding to the attribute you're mapping.
7. To allow null values to be specified in the coverage for this column, select the **Allow Null** check box, and optionally, select the **Null is Wildcard** check box.

Then select the appropriate value for the **Null is Wildcard** option, based on the intended behavior described in the following table. The **Severity** condition column is used as an example in the following table.

Allow Null Selected?	Null is Wildcard Selected?	Add a Coverage Row with Blank Value?	Coverage Rows Applied on SR with Blank Value Specified?	Coverage Rows Applied on SR with Non-Blank Value Specified?
N	N	Not possible	No rows applied	When explicit match between SR and coverage row.
Y	Y	Y	Blank row applied	<ul style="list-style-type: none"> <li>○ If the SR severity isn't defined in a row, the blank coverage row is applied.</li> <li>○ If the SR severity is defined in a coverage row, an error occurs and no values are applied.</li> </ul> Both the blank row and the matching row are considered a match, but coverages must be set up so that only one row from a specific coverage can ever be matched. If two rows match, it results in an error condition and no rows being applied. For more information, see the step 5b in the topic "Create Standard Coverages".
Y	Y	N	No rows applied	When explicit match between SR and coverage row.
Y	N	Y	Blank row applied	When explicit match between SR and coverage row.
Y	N	N	No rows applied	When explicit match between SR and coverage row.

8. Click **Save and Close**.

The matrix class displays in the **Entitlement Type** drop-down list when you create a standard coverage.

## Set Up Administrator-Defined Milestones

### Overview of Administrator-Defined Milestones

In addition to using the predefined milestones for First Response and Resolution, you can also define additional milestones to track service requests. This lets you configure the application effectively, based on your own business processes and service standards.

The section "Set Up Additional Condition Columns for Standard Coverage Entitlement Rules" described how you can use other columns from the service request as condition columns for coverages, by editing the service mapping and creating your own matrix class. You can also add result columns to a matrix class to represent the administrator-defined milestones. In addition to adding new result columns to the matrix class, you must also do the following:

1. Modify the algorithm that specifies the entitlements to include the new columns you add.
2. Add the new milestone to the **Manage Service Milestone Configuration** task in **Setup and Maintenance**.

### Add the Result Columns to the Matrix Class

Here's how you can add the result columns to the matrix class:

1. On the Subscription Configuration page, click **Dynamic Matrix Configuration > Manage Matrix Classes**.

The Manage Matrix Classes page is displayed.

**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Manage Matrix Classes**.

2. Duplicate the **Subscription Entitlements** (or **Contracts Service Entitlements**) matrix class. You can also edit a matrix class you previously created, or create a new matrix class.
3. On the Edit Matrix Class page for the selected matrix class, in the **Result Columns** section, click **Add Row** to add the administrator-defined metric and its corresponding warning threshold.
4. Enter names for the administrator-defined metric and its corresponding warning threshold.

Code values are automatically populated in the **Source Code Name** field. The names and codes must be unique for each milestone and its corresponding threshold value (**Milestone Code** and **Threshold Code** must be unique and should not be used already in existing milestone configurations). You should copy and save these values, because you need **Source Code Name** in the Manage Algorithms page and **Name** in the Manage Service Milestone Configuration task page.

5. In the **Domain** field, retain the default value **Number** because it denotes the time in minutes.
6. Click **Save and Close**.

## Modify the Algorithm to Include the New Milestone and Threshold Columns

Here's how you can modify the algorithm to include the new milestone and threshold columns you created:

1. On the Subscription Configuration page, click **Dynamic Matrix Configuration > Manage Algorithms**. The Manage Algorithms page is displayed.  
**Note:** If you're using Service Contracts, then you navigate to this page by clicking **Navigator > Contract Management > Contracts > Tasks > Manage Algorithms**.
2. Select the **Get Subscription Entitlements** (or **Contracts Get Service Entitlements**) row, with the algorithm version **1** and status **Published**.
3. Select **Actions > Create Version**. A new version of the algorithm is created, with the status **In Progress**.
4. Select the new version of the algorithm. The Edit Algorithm page is displayed.
5. On the **Algorithm** tab, select **Look up matching Entitlement Rule**.
6. In the **First Row Actions** section, click in the **Actions** field.
7. Copy the existing algorithm and append it. For example:

```
if(Matrix.hasProperty("NextResponseMetricCode")) {  
rule= EntitlementResults.insert([EntitlementResultId: getNextId()])  
rule.EntitlementId=Entitlement.EntitlementId  
rule.ScheduleId=Matrix.CalendarCode  
rule.ResultName= 'NextResponseMetricCode'  
rule.ResultValue= Matrix.NextResponseMetricCode  
rule.ResultThresholdValue=Matrix.NextResponseWarningMetricCode  
}
```

**Note:** If you're using Service Contracts, use `rule.CalendarId=Matrix.CalendarCode` instead of `rule.ScheduleId=Matrix.CalendarCode`.

8. Replace the **Source Code Name** values with the values of the administrator-defined metric and its corresponding warning threshold you saved in the previous procedure for adding the result columns to the matrix class.  
In this example, `NextResponseMetricCode` and `NextResponseWarningMetricCode` are the names defined in the matrix classes.
9. Click **Save and Close**.
10. Navigate to the Manage Algorithms page.
11. Select the modified version of the algorithm, and click **Actions > Publish**. The **Status** of the algorithm is updated to **Published**.

## How do I add the milestone to the Manage Service Milestone Configuration Task?

Here's how you can add the milestone to the Manage Service Milestone Configuration task:

1. In the Setup and Maintenance work area, go to the following:

- o Offering: Service
- o Functional Area: Service Entitlements
- o Task: Manage Service Milestone Configuration

The Manage Milestone Configuration page is displayed.

2. Click **Create Milestone** and specify the following milestone details:

- o **Milestone Label:** Enter the name of the milestone that should be displayed on the service request.
- o **Milestone Code:** Select the name of the milestone result column you added to the matrix class. These names are defined in the matrix classes and can't be modified.
- o **Milestone Type:** Select from the following types, which determine whether milestones are reopened or repeated once complete.
  - **Can be reopened:** A milestone that can be reopened is set back to **In Progress** status when the complete criteria is no longer true, and continues the countdown to expiration when reopened. The **Resolution Metric** milestone is of this type.
  - **Can be repeated:** A milestone that can be repeated can't be reopened once closed, but another one is created when the start criteria is valid. For example, suppose you configure a **Next Response Due** milestone that should be repeated each time a customer update is posted to the service request. Once a response is sent, the milestone is complete, but upon receiving a new customer update, another **Next Response Due** milestone is created and tracked.
  - **Can't be repeated:** A milestone of this type can't be reopened or repeated once it's marked complete. The **First Response Metric** milestone is of this type.
- o **Threshold Code:** Select the name of the threshold result column corresponding to the milestone, which you added to the matrix class. This determines the threshold value that's applied to the milestone. The names are defined in the matrix classes and can't be modified.
- o **Business Unit Name:** Leave as the default business unit (BU) unless you're configuring milestones for multiple business units. For more information, see the "Configure Milestones for Multiple Business Units" in this guide.
- o **Allow Due Date Override:** Select this check box to let agents modify a milestone's due date on the Service Request Milestone Details page (in the **Due Date** field).

**Note:** If a customer wants to audit agent updates to the due date, the administrator must enable audit on the **Overridden Due Date** attribute.

- o **Allow Agent Completion:** Select this check box to let agents manually acknowledge that they have completed a milestone and close it. On the Service Request Milestone Details page, if an agent selects the **Agent Completed** check box and saves the milestone, the milestone status is updated to **Complete**. Milestones that can be reopened are reopened if the start condition is met again.

The administrator can specify which milestones allow due date updates and which allow the update to specify a milestone has been completed. These attributes are independent of each other, so that some milestones can allow only moving the due date, others might allow the agent to mark it complete but not move the due date, and still others may allow both types of updates.

- o **Time Zone Override Source:** This field makes it easier to assign milestone due dates to global resources or for global customers, and avoids setting up multiple coverages, calendars, and Groovy script to support this scenario. If there's no assigned agent, or no time zone is specified on the SR, the time zone specified in the coverage line is used
  - **Owner:** Select **Owner** from the drop-down list to set an override on the milestone configuration that calculates the milestone due date based on the time zone of the agent assigned to the SR.

Companies with service agents supporting customers across many time zones may use this field to ensure the due date falls within the working hours of the resource to whom the SR is assigned.

- **Service Request:** Select **Service Request** from the drop-down list to set an override on the milestone configuration that calculates the milestone due date based on the time zone populated in the SR. Companies supporting customers across many time zones may use this field to allow SR specific information to indicate which time zone the due date is calculated against.
3. Enter the milestone conditions. Each milestone (both prebuilt and administrator-defined) has conditions that determine when the milestone starts, pauses, and completes. For each condition, you can define multiple attribute and value pairs that determine when the condition is applied to the milestone.
- o Each tab has a text box that enables you to provide a common description that's displayed in the service request details when the milestone is applied to the service request. This description enables an agent to understand when a milestone starts counting, when it pauses, and when it's considered complete.
  - o Add conditions using the **Create** button in the tab. Use the **Attribute** column to indicate a field to compare to a value using the operator. The **Attribute** column lists administrator-defined fields and a subset of the service request fields that are available to use as conditions. Alternately, you can specify a static condition that doesn't require an operator or value. You can also use object functions written in Groovy, to express more complex start, pause, and stop criteria for milestones.
    - For example, if you specify the field **Problem Type Code**, you must specify the operator (**Is One Of, Is Not One Of**) and the values that make this criteria true.
    - Alternately, if you specify a static condition such as **Immediate**, no operator or value is required. In this case, the criteria is considered true as soon as the service request is evaluated.
    - You can specify a logical condition in the form `<attribute> <comparison> <operator values>`.
- For example, you can specify `Status Type (attribute) Is One Of (operator) Closed, Resolved (values)` as the completion criteria for Resolution Milestone. You can also specify a static predefined condition such as `User Sends Response`, which evaluates to true as soon as any user sends a response message.
- When an object function is written on the service request object in Application Composer to return a Boolean value, the function is available as start, pause, and completion criteria. Similar to the static conditions, when an administrator-defined object function is selected, the operator and values aren't required. When the function returns true, the start, pause, or completion criteria specifying that function is triggered.
- o When multiple rows are added as conditions, the results are combined logically using the AND operator, so all rows must evaluate to true for the criteria to be true.

## Configure Milestones for Multiple Business Units

### Overview of Milestones for Multiple BUs

You can configure milestones using the Manage Service Milestone Configuration or Manage Service Milestone Configuration for Business Unit task.

As an administrator, you can create and manage milestones for service requests using the **Manage Service Milestone Configuration** task in **Setup and Maintenance**. However, when the **Business Units** feature of **Service Offering** is enabled, milestones must be defined for each business unit (BU) that intends to track them.

Here's how milestones are applied when BUs are enabled:

- If a service request is assigned to a BU, and milestones are defined for that BU, then the milestones are applied.
- If a service request is assigned to a BU, but no milestones are defined for that BU, then the milestones aren't applied.
- If a service request isn't associated with any BU, and a default BU is defined for that organization, then the milestones defined for the default BU (if any) are applied.

## How You Configure Milestones for Multiple BUs

In a multiple BU environment, you must configure milestones for each BU that intends to track them.

This gives each BU the flexibility to track a different set of milestones, or to track the same milestone using different start, pause, and stop criteria, depending on the business requirements. You can configure milestones for each BU in the following ways:

- To apply an existing milestone to a new BU, or to create a new milestone for a BU, use the **Manage Service Milestone Configuration** task in **Setup and Maintenance**.

Using this task, you create a new milestone configuration, and specify the existing or new milestone code with the new BU. You can specify the same or different start, pause, and stop criteria, depending on the requirements of the BU.

- To define multiple milestones for a specific BU, use the **Manage Service Milestone Configuration for Business Unit** task in **Setup and Maintenance**.

When using this task, you must specify the **Scope** using the **Select Scope** dialog box. As you create each milestone, the BU specified in the **Scope** is automatically set as the milestone BU.

**Note:** Before configuring milestones for the first time in a newly-provisioned multiple BU environment, the administrator must associate the default BU with the ready-to-use milestones, as described in the following topic.

## Configure Milestones for the First Time in a Newly-Provisioned Environment

When you're first configuring milestones in your newly provisioned, multiple BU environment, after the default BU has been set up for your organization, you must associate the default BU with the ready-to-use milestones.

This required association is a one-time task to enable milestones to be configured for multiple BUs.

1. In the Setup and Maintenance work area, select the **Manage Service Milestone Configuration** or **Manage Service Milestone Configuration for Business Unit** task.

The Select Default Business Unit page is displayed.

2. From the **Business Unit Name** drop-down list, select the default business unit to assign to the ready-to-use milestones, and click **Apply**.

Milestone configurations corresponding to the selected business unit are displayed.

# Troubleshoot with Milestone Diagnostics

## Overview of Milestone Diagnostics

Administrators can use the Service Request Milestone Diagnostics page to validate or troubleshoot your milestone rules. The administrator can run a milestone diagnostics report for a specific service request and view the full evaluation of milestone rules.

The milestone diagnostics report provides the following information:

- Which milestones were applied?
- Which milestones and coverages were considered but not applied?
- From which coverage did an applicable milestone originate?
- Did the milestone apply or not apply based on the associated business unit?

## How do I view the milestone diagnostics report?

Here's how you can view the milestone diagnostics report:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: **Service**
  - Functional Area: **Service Entitlements**
  - Task: **Manage Service Milestone Configuration**
2. On the Manage Milestone Configuration page, click **Actions > View Milestone Diagnostics**.  
The Service Request Milestone Diagnostics page is displayed.
3. Enter the service request number in the **Service Request** field.
4. Click **Check Milestones**.

The milestones that are applicable to the specified service request are displayed in a table, with the corresponding metrics and the following details:

- **Defined for BU:** Indicates whether the milestone configuration definition was created for the applicable business unit.
- **Applicable to SR:** Indicates whether the milestone from the specified coverage would be applied to the service request.
- **Notes:** Provides additional information when the milestone isn't applicable to the service request.

# 14 Action Plans

## Set Up Action Plans

### Overview of Action Plans

Action plans are used to complete a series of steps or a sequence of events to resolve different types of requests.

You can associate action plans to service requests if you need to complete a series of steps or a sequence of events to resolve the request .

You can attach action plans to a many objects, such as service request using an administrator-defined template, or by adding individual actions. Actions can be can be required or optional tasks, basic steps such as tasks, or appointments, or more complex steps such as cases, opportunities, or processes. .

Be careful about spacing. You must remember that each conditioned sentence or phrase won't show in certain output. Here's what I mean.

You can add Action Plans to the following objects:

- Service Requests
- Cases

Agents can add either solo actions, or action plans. Actions can be required or optional tasks, activities, or appointments.

- **Solo Actions** are individual actions added to an object.
- **Action Plans** are added from an administrator-defined template. Action plans are made up of multiple actions.

By using actions and plans, users have:

- A visual aid to see the progress of a solo action or an action plan
- Any warnings on actions or plans

To use the Action Plans feature, set up actions, templates, and categories in Setup and Maintenance.

In Setup and Maintenance, navigate to Service > Action Plan. If Action Plan isn't displayed, use the **Change Feature Opt In** to activate Action Plans.

The following table shows the name and description of each action plan setup task.

Task	Description	Required
Manage Action Plan Profile Options	Manage profile options for the Action Plans feature.	Yes
Manage Action Plan Actions	Create actions that can be used for solo actions or in action templates. You can specify the category, type, duration, and visibility for each action.	Yes

Task	Description	Required
Manage Action Plan Templates	Create templates to group similar actions to be added to an action plan.	Yes
Manage Action Categories for Action Plans	Action categories are used to facilitate finding actions to add to templates or directly to an action plan.	No
Manage Template Categories for Action Plans	Template categories are used by agents to filter and find templates to apply to an action plan.	No
Manage Mapping of Action Plan Status Values	<p>Manage the global setup for status configuration.</p> <p>You can map task, appointment, or request attributes to an action status at a global level. Action status mapping can also be done at the individual action level.</p>	No
Manage Process Integration for Action Plans	<p>Configure the authentication from Fusion Service to your Process Automation instance.</p> <p><b>Note:</b>                      Used for the Run Process through Action Plans feature. A subscription to Oracle Process Automation is required in order to take advantage of this feature.</p>	No
Manage Action Plan Process Metadata	<p>Manage the action plan process metadata.</p> <p><b>Note:</b>                      Used for the Run Process through Action Plans feature. A subscription to Oracle Process Automation is required in order to take advantage of this feature.</p>	No

*Related Topics*

- [How do I manage action plan actions?](#)
- [Manage Action Plan Templates](#)
- [Map Action Plan Status Values](#)

## Manage Action Plan Profile Options

The following are the available action plan profile options and their descriptions.

Manage the Action Plan profile options in Setup and Maintenance. Navigate to:

- Offering: Service
- Functional Area: Action Plans
- Task: Manage Action Plan Profile Options

The following table shows the action plan profile options and their descriptions.

Profile Option	Description
SVC_ENABLE_ACTION_PLAN	Specify if Action Plan is enabled for service requests .
SVC_ALWAYSSHOW_ACTIONPLAN_TAB	<p>Enables the default visibility of Action Plan tab in the use SR. If you enable it, the Action Plan tab will always be visible. Otherwise, it will only be visible if the SR has Action Plans.</p> <p><b>Note:</b> This profile option isn't used for Next Gen.</p>
SVC_ENABLE_SUBSCRIPTION_SCHEDULES_IN_ACTION_PLANS	<p>Enable calculation for action plan estimated completion times based on schedules defined in Subscription Cloud.</p> <p><b>Note:</b> If you don't set this profile option, contract schedules are used.</p> <p>Oracle recommends using subscription schedules.</p> <p>If an action plan template doesn't have an explicitly assigned valid subscription schedule, then SVC_DEFAULT_CRM_CALENDAR/SVC_DEFAULT_HCM_CALENDAR profile options are used to specify a default contract schedule to use as a calendar.</p> <p>If SVC_DEFAULT_CRM_CALENDAR/SVC_DEFAULT_HCM_CALENDAR aren't set, a 24/7 schedule is used by default to perform any date computations.</p>
ORA_SVC_DEFAULT_SUBSCRIPTION_SCHEDULE	<p>Specifies a default subscription schedule to use as a calendar if subscription schedules are enabled (profile option SVC_ENABLE_SUBSCRIPTION_SCHEDULES_IN_ACTION_PLANS = Y) and the action plan template doesn't have an explicitly assigned subscription schedule.</p> <p><b>Note:</b> If an action plan template doesn't have an explicitly assigned valid subscription schedule, then a 24/7 schedule is used by default to perform any date computations.</p>
ORA_SVC_AP_PROCESS_METADATA_VALIDATION_ENABLED	<p>Enable the validation of process metadata in action plan.</p> <p>Use this profile option to validate the process being associated to an action when a dynamic process action is created or updated in a REST request.</p>

Profile Option	Description
	<p><b>Note:</b>                      Used for the Run Process through Action Plans feature. A subscription to Oracle Process Automation is required in order to take advantage of this feature.</p>
ORA_SVC_AP_DEFAULT_OBJECT_LINK_TYPE	The Object Link Type used when Object Links are created by Actions and Plans.
ORA_SVC_AP_ENABLE_OBJECT_LINK	Enable the creation of object links between supported objects in actions and plans.

## How do I manage relationships for action plans?

Action plans can have relationships to other objects. For example, an action can be blocked by another object, or a duplicate of another object.

### About Relationships

Agents can create business-driven relationships between service requests and leverage them to make updates across SRs. You must enable this feature in Functional Setup Manager.

### Enable Relationships

To enable the Relationships feature:

In the Setup and Maintenance work area go to the following:

- Offering: Service
  - Functional Area: Action Plans
  - Task: Manage Action Plan Profile Options
1. Select the profile value **ORA\_SVC\_AP\_ENABLE\_OBJECT\_LINK**.
  2. In the drop-down list of the value, select Yes.
  3. Click **Save and Close**.

Now, you can set the type of object link that's used for the relationship. For example, blocked, or duplicate.

1. Click the profile value **ORA\_SVC\_AP\_DEFAULT\_OBJECT\_LINK\_TYPE**.
2. Select the relationship type from the Profile Value drop-down list.
3. Click the **Add (+)** icon to continue adding the relationship types you want to use.
4. When you have finished, click **Save and Close**.
5. Click **Done**.

### Manage Link Types

You can manage link types in the Manage Object Link Types task.

In the Setup and Maintenance work area go to the following:

- Offering: Service

- Functional Area: Service Request
- Task: Manage Object Link Types

To edit or disable the predefined object link type:

1. Click the link type in the list.
2. Make your changes. To disable, deselect the disable check box.
3. Click **Save and Close**.

To create a link type:

1. Click **Create Link Type**.
2. Enter all the required information:
  - Name
  - Short Name
  - Outward Value
  - Inward Value
3. Select the check box to enable the type.
4. Click **Save and Close**.

## How do I manage action plan actions?

Use the Manage Action Plan Actions task to create and edit actions for action templates or individual actions used in service requests. In this task, you specify the category, type, duration, visibility, and attribute mappings for each action.

To manage action plan actions, in the Setup and Maintenance work area go to the following:

- Offering: Service
- Functional Area: Action Plan
- Task: Manage Action Plan Actions

## Create a New Action

Here's how to create a new action:

1. Click **Create Action**.
2. Enter the action name.
3. If you enabled business units for service requests for help desk requests or stripe codes, use the drop-down lists to select the stripe code and BU.
4. Select **Category**.  
Select **Class**.
5. Select the **Action Type**.

Depending on the Fusion Service features you're using, Action types can include:

- Appointment

- o Article

**Note:** You can create an Action of type Article. You must select Stripe Code of the action and then select Sub Type of the action. The Attribute Mapping section must be populated as it's required for any other type of actions.

- o Case
- o Dynamic Process
- o HR Help Desk Request (If you're using the Help Desk Offering)
- o Internal Service Request (If you're using the Help Desk Offering)
- o Opportunity (If you're using the Sales offering)
- o Service Request
- o Task

Follow the next four steps if you're creating a Dynamic Process Action (with the Run Processes Through Action Plans feature). If you aren't using this feature, you can skip the next four steps.

6. Click the **Edit** icon in the **Process Name** field.

7. Search for and select the process you want to add to the action.

Processes must already be created in Oracle Process Cloud and your connections to Oracle Process Cloud must be working.

Also, the administrator must be added to the Process Application Administrator role in the process workspace UI so they can see all processes.

**Note:** When you create processes, you must define the following case-sensitive input parameters - `objectNumber`, `objectType`, `actionPlanId`, `actionPlanActionId`, and `processParentObjectType` when configuring dynamic processes. For Solo Actions, input parameter `processParentObjectType` will have value `'ActionPlan'` while for Plan based actions it will have `'ActionPlanAction'`.

8. Click **OK**.

9. Select to use the default version of the process, if you want to use the default process version instead of the version-specific process.

**CAUTION:** After a process is deployed, overriding it will remove all running instances. Oracle recommends that you create a new version for additional changes and mark it as default, if it's required. An action which has **Use default version** selected will ensure that only the default version in Oracle Process Automation is used to create process instances. For processes whose inputs are form based, make sure the interface argument is the same.

10. Select the **Action Visibility**.

Visibility options include:

- o Not Published - Only visible to the administrator. The action isn't available to add to a template and can't be added by an agent as an additional action.
- o Customer Visible - Optional. Used only for user interface configurations to display or hide Actions.
- o Internal Only - Visible internally only.

11. Enter a context for the action.

Context options include:

- o Opportunity
  - o Service Request
  - o Internal Help Desk Request
  - o HR Help Desk Request
  - o Case
12. Enter a numeric value for the **Duration** of how long the task should take. Select a unit of measure for the numeric value (days, hours, or minutes).
  13. Select a **Stripe Code** (CRM, HCM, ISR, or HRSR) from the drop-down list.  
**Note:** If you select the type as SR, you shouldn't select stripe as ISR/HRHD. This leads to ambiguity whether the underlying object created should be CRM SR or ISR/HRHD.
    - o If the agent wants the associated object to be CRM SR, select the following:
      - Type: SR
      - Stripe: ORA\_SVC\_CRM
    - o If the agent wants the associated object to be ISR, select the following:
      - Type: ISR
      - Stripe: ORA\_SVC\_ISR
    - o If the agent wants the associated object to be HRHD, select the following:
      - Type: HRHD
      - Stripe: ORA\_SVC\_HRHD
  14. Select a **Category** from the drop-down list.
  15. You can define a specific relationship to be created for the action by selecting an **Object Link Type** from the drop-down list. If you don't select a specific object link type, the global setting is used.
  16. Check the Copy Attachments checkbox if you want all attachments to be copied from the context object to the target object. You can select to copy all attachments for the following object types:
    - o Cases
    - o Service Requests
    - o Help Desk Requests
    - o Internal Service Requests
  17. Enter a description of the action and any pertinent details.
  18. If necessary, make edits on the **Attribute Mapping** or **Status Mapping** tabs. These are explained next.
  19. Click **Save and Close**.

## Attribute Mapping Tab

Every action in an action plan has a related object (as in a task, appointment, opportunity, case, or service request) that's automatically created when the action starts.

The attribute mapping tab is where you set up the mapping of information from the action, parent service request, and user-defined values into the related object when it's created.

**Note:** There are no attributes to map for Dynamic Processes. If you're creating a Dynamic Process Action, there isn't anything to do on this tab.

Mapped attributes come from the fields in the related object. Required attributes are automatically listed, and you can add optional attributes. The **Mapped To** column shows where the information comes from that populates the field on the related object.

**CAUTION:** If you map attributes incorrectly, the creation of the business objects during orchestration in Action Plans will fail.

Required fields are shown in the **Required** column. Additional fields might also be listed that can't be changed. For example, Activity Type displays Task if that action type is Task or defaults to Appointment if the action type is Appointment.

Here's how you add an attribute mapping:

1. Click the **Add** icon.
2. Select the field to be populated from the **Attribute** choice list.
3. In the **Mapped To** column, select from where the fields must be populated. Choices are: service request, action, or a user-defined value.
4. Depending on the attribute you selected in the previous step, enter free-form text to the box for free-form values. For service request or action, select the field from the choice list in the last column.

For more information about mappings for an article, see the topic Attribute Mappings for Knowledge Articles in this chapter.

## Status Mapping Tab

The related business objects created for actions can have different user-defined status values. However, they must be mapped into a new set of status codes for an action in an action plan. You can do this at a global level for all actions, or individually for one action if it has unique attributes. When a user updates an object, the status mapping rules determine how the status of an action updates on an action plan. For example, when a task is set to closed or completed, then the action status is completed.

**Note:** If you don't define the status mapping at the action level, then the default is the global status mapping. Also, there are no statuses to map for Dynamic Processes. If you're creating a Dynamic Process Action, there isn't anything to do on this tab. There are however, predefined status value mappings that can't be changed.

For more information about the global action status configuration, see the topic Manage Mapping of Action Plan Status Values.

The following table shows the predefined Process Automation status values that are mapped with Action Plan status values.

Process State	Action Status
Active	ORA_SVC_IN_PROCESS
Completed	ORA_SVC_COMPLETED

Process State	Action Status
Terminated	ORA_SVC_COMPLETED
Closed	ORA_SVC_COMPLETED

For more information about the global action status configuration, see topic [Manage Mapping of Action Plan Status Values](#).

You can use the **Status Mapping** tab on an action to override the global status mappings. For example, if the global rule is set to an action being closed when the status is complete, but instead you want it to be closed when it's canceled, you can override the global mapping so that the action closes when both conditions are met.

1. Click the **Status Mapping** tab.
2. Click the **Add** icon.
3. Select a status from the **Status** choice list. This becomes the status that ends up on the action. Status options include:
  - o Blocked
  - o Completed
  - o In progress

**Note:** Apart from these three status values, you should not set up rules for any other status.

4. Select an attribute from the choice list.
5. Select an operator. Operators include:
  - o Contains
  - o Equals
  - o Is null
  - o Is not null
6. Select a value for the status.

### Example of a Status Mapping

Let's say you want an action to be marked completed when a service request's status is completed or canceled.

The following table shows the values to enter on the Status Mapping tab.

Column	Value
Status  This is the status you want the action to be.	Completed
Attribute	Status

Column	Value
This attribute comes from the SR.	
Operator	is one of
Value This is the request's status. You can select multiple values from the list.	Completed, Canceled

## Dependencies Tab

When an action is added to a template, the **Dependencies** tab shows the template name. You use this to know what templates are impacted by a change to an action. If the action is in a template, you can also view and edit the template from this tab.

**Note:** Edits made to templates don't affect active action plans that use the template.

## Action Errors Tab

The **Action Errors** tab lets you to recreate actions for users when there are errors in action attribute mapping. For example, if the attribute in an attribute mapping is mapped incorrectly, the **Action Errors** tab is displayed. From the tab, you can see all the action plans that the action is used in, and after they are fixed, the action plan actions can be recreated directly from this tab.

This tab isn't used for Dynamic Process actions.

The Action Errors tab shows a table with the action plan number, action plan name, and the status details of the action.

Review the attribute mappings the action and correct the error. After attribute mapping for the action is corrected, you can return to the **Action Errors** tab and click **Recreate**.

## Edit an Existing Action

To edit an existing action:

1. In the **Manage Action Plan Actions** task, select the template you want to edit.
2. Edit the action.
3. Click **Save and Close**.

## Manage Action Plan Templates

The Manage Action Plan Templates task is used to create or edit templates that include multiple actions that must be completed to close an SR.

In the Setup and Maintenance work area, go to the following:

- Offering: Service
- Functional Area: Action Plan

- Task: Manage Action Plan Templates

## Create a New Action Plan Template

To create a new action plan template:

1. Click **Create Template**.
2. Enter a name for the template.
3. Select the type of business calendar for the duration and end dates of the actions.

**Note:** The calendar comes from the list of schedules defined under Subscription Management in the Manage Availability page. For more information about calendars, see the Create a Coverage Schedule topic in this guide.

4. Enter a start date for the template.
5. Enter an end date for the template (optional).
6. Check **Published** to publish the template when it's ready for agents to use.
7. Enter a **Description**.
8. Select a **Category**. Categories are available only if you set them up in the Manage Action Categories for Action Plan task.
9. Select a the **Context** from the list of values. Context values include:
  - Article
  - Case
  - HR Help Desk Request (If you're using the Help Desk offering)
  - Internal Service Request (If you're using the Help Desk offering)
  - Opportunity (If you're using the Sales offering)
  - Service Request
10. If business units are enabled, select the business unit for the template.
11. If stripe codes are enabled, select the stripe code for the template.
12. Select **Auto Start** to designate the action plan template to start automatically.

Any Templates with this setting, once assigned using the Action Plan REST API, are started either on the next execution of the action plan scheduled job (Monitor Action Plan Actions), or a REST call to refresh the action plan..

**Note:** You may need to create the action plan with `Create_&_Initiate` status using the REST API. If you create it using just the Create status, it won't consider it for Auto Start on the REST scheduled job or refresh the REST action call.

13. Add actions to the template by clicking the **Add** icon in the **Action Flow** region of the page.
14. On the **Add Actions to Template** page, search for the action to add by entering a name, category, or action type.
15. Click **Search**.
16. From the search results, add an action by clicking the Add icon for the action you want to add.

17. Now, search and add all the actions you want to place on the template.

**Tip:**

- You may not see all actions. Actions can be limited by stripe and business unit.
- You can delete actions from the **Actions to Add** pane by clicking the delete icon.
- You can add the same action multiple times. For example, if the action is to obtain approval from two managers, add the action twice.
- You can reorder actions using the arrow icons.
- If you can't find an action, you can create actions. Click **Create New Action**.

18. When you have added all the actions you want on the template, click **Add to Template**.

On the Template page, the actions display in a list view. You can also view the template in a graphical view by selecting the graphic icon.

19. In the **Prerequisite** column, set any prerequisites for each action in the template. Select the action row in the **Prerequisites** column and click the **Add Prerequisites** icon.

20. Select the check box next to the actions that you want to make a prerequisite for the action.

**Tip:**

- For actions that have prerequisites, mouse over the prerequisite to show the names of the prerequisite actions.
- Use the graphical view to see the order of completion for the actions.

21. Actions are automatically set to mandatory in the **Mandatory** column. Deselect the check box to make an action optional.

If an action is identified as Optional, the agent has the ability to skip the action if it does not apply to her specific action plan. Mandatory actions can't be skipped.

22. Click **Save and Close** to complete the template.

## Edit an Existing Template

To edit an existing template:

1. In the **Manage Action Plan Templates** task, select the template you want to edit.
2. Make your edits.
3. Click **Save and Close**.

### Related Topics

- [How do I manage action plan actions?](#)
- [How do I create a coverage schedule?](#)
- [How do I update existing setup data?](#)

## Map Action Plan Status Values

Use the Manage Mapping of Action Plan Status task to create or edit global status mappings from related action business objects to an action plan.

The global mapping can be overridden at the individual action level. For example, you can set an action status as complete when the related service request status is resolved or closed.

To manage mapping of action plan statuses, in the Setup and Maintenance work area, go to the following:

- Offering: Service
- Functional Area: Action Plan
- Task: Manage Mapping of Action Plan Status Values

On the Action Status Configuration page, select from the following action types.

- Appointment
- Case
- HR Help Desk Request
- Internal Service Request
- Opportunity
- Service Request
- Task

You can edit the existing status, or click the **Add** icon to add additional status configurations.

**Note:** When assigning user-defined values, you can enter any value as a user defined value during attribute mapping. There's no validation performed on that value.

### Related Topics

- [Overview of Action Plans](#)
- [How do I manage action plan actions?](#)
- [Overview of Opportunities](#)

## Use Oracle Process Automation with Action Plans

### Overview of Using Oracle Process Automation with Actions and Plans

You can use Oracle Process Automation with the Action Plans feature to design processes that:

- Automate your Actions and Plans. You can add automated steps to your Actions and Plans based on conditions you create in Oracle Process Automation.
- Leverage Oracle Process Automation capabilities to:
  - Connect to any system over REST APIs
  - Implement workflow into your actions and plans

The topics in this section take you through the process of enabling and configuring the Run Processes through Action Plans feature.

**Note:** A subscription to Oracle Process Automation is required in order to take advantage of this feature.

## Configure Oracle Identity Cloud Service and Oracle Process Automation

To access the Oracle Process Automation Designer, Workspace, and REST APIs, you must first enable user synchronization in IDCS and assign user roles.

### *Use Oracle Process Automation with Fusion-Based Oracle Cloud Applications*

Refer to the steps in the topic *Use Oracle Process Automation with Fusion-Based Oracle Cloud Applications* in the *Using Oracle Process Automation* guide.

As an IDCS administrator, make the following role assignments:

- Assign the ServiceAdministrator role to the following groups:
  - Sales Administrator
  - Case Worker
  - Human Resource Help Desk Agent (if using the Help Desk product)
  - Internal Help Desk Manager (if using the Help Desk product)
- Assign the Service Developer role to the following groups:
  - Customer Service Representative
  - Case Worker
  - Human Resource Help Desk Agent (if using the Help Desk product)
  - Internal Help Desk Agent (if using the Help Desk product)

In the Oracle Process Automation Workspace interface (see *Get the Oracle Process Automation Instance URL*), add the following groups to the Oracle Process Application Administrator Global role:

- Sales Administrator
- Case Worker
- Human Resources Help Desk Agent (if using the Help Desk product)

- Internal Help Desk Manager (if using the Help Desk product)

# Configure Oracle Process Automation with Oracle Fusion Service

## Enable the Run Processes through Action Plans Feature

You can use Oracle Process Automation in Actions and Plans in Fusion Sales and Service version 21.04 or later.

To enable the feature, go to Setup and Maintenance and do the following:

1. Go to the Service offering.
2. Click **Change Feature Opt In**.
3. If it's not already done, select the **Enable** check box for Action Plans.
4. Click the **Edit** icon for Action Plan **Features**.
5. Select the **Enable** check box for Run Processes through Action Plans.
6. Click **Done**.
7. Click **Done** on the Opt In page.

Ensure all users of your process-based Actions and Plans have:

- The SVC\_ACTION\_PLAN\_PROCESS\_PRIV privilege provisioned in Sales and Service.
- The required permissions to view and edit their processes in Process Automation.

## Manage Oracle Process Automation Integration

To configure authentication from Oracle Fusion Service to the Oracle Process Automation instance:

1. In Setup and Maintenance, go to the following:
  - Offering: Service
  - Functional Area: Action Plans
  - Task: Manage Process Integration for Action Plans

The Configure Process Integration for Action Plan page displays. This is where you add the proxy user who initiates processes for jobs.

2. Enter the credentials for a user who has the Process Application Administrator role in Oracle Process Automation.
3. Click **Save**.

If successful, the following confirmation messages display.

- Process credentials saved.
  - Process credential validation is successful.
4. Once credentials save and successfully validate, click **Save and Close**.

#### Related Topics

- [Use Oracle Process Automation with Fusion-Based Oracle Cloud Applications](#)

## Manage Action Plan Process Metadata

With this task, you can see what current processes are available to be mapped to actions.

In Setup and Maintenance, go to the following:

- Offering: Service
- Functional Area: Action Plans
- Task: Manage Action Plan Process Metadata

In the Process Metadata page, enter search criteria and click the **Search** icon.

There's no action needed for this page. This is a read-only list of processes where you can see all processes by name, their versions and which versions are the default.

## Export and Import Action and Plan Configurations

If you need to, you can export and import action plan configurations from you test environment to your production environment.

For export and import of Actions and Plans, refer to [Import Your Action Plan Data](#) in the [Oracle Fusion Understanding Import and Export Management for Sales and Service](#) guide.

For export and import of Process Automation processes, refer to the [Process Automation documentation](#).

#### Related Topics

- [Import Your Action Plan Action Data](#)

# 15 Configure Service Request Outcomes and Resolutions

## Outcomes and Resolutions

Oracle Fusion Service provides ready-to-use outcomes and resolutions. Administrators can configure additional outcomes and resolutions.

Oracle recommends that you use the task if you want to associate the outcomes, and display the configured items as drop-down list menu in the Resolve Service Request dialog box.

The **Manage Service Request Outcomes and Resolutions** task is used when administrators want to create new resolutions and map them to outcomes. The task must only be used when administrators want to create new resolutions and don't want to map them to outcomes

## Manage Outcomes and Resolutions

The Manage Service Request Outcomes and Resolutions tasks are used when administrators want to create new outcomes, resolutions, and map resolutions to outcomes.

Follow these steps to configure Outcomes and Resolutions, and map them:

### Step 1: Configure Outcomes

To add an outcome:

1. Sign in to the application as an administrator.
2. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Service Request
  - o Task: Manage Service Request Outcomes and Resolutions.
3. In the **Manage Service Request Outcomes and Resolutions** page, select the **Outcome** tab.
4. Click the **Add** icon to add a new outcome.
5. In the new row that displays, enter the fields such as lookup code, display sequence, meaning, description, and so on to correspond to your needs.

**Note:** Oracle recommends that you name the outcome lookup code starting with SVC\_ to differentiate between customer-created outcomes and ready-to-use outcomes.

6. Click **Save and Continue**.

If you have selected the **Enabled** check-box, the outcome is added to the **Outcomes** list under the **Map Resolutions to Outcomes** section, else the new outcome is only listed in the **Outcomes** list.

### Step 2: Configure Resolutions.

Administrators can configure new resolutions in the **Manage Service Request Outcomes and Resolutions** task.

To add resolutions:

1. In the **Manage Service Request Outcomes and Resolutions** task page, select the **Resolution** tab.
2. Click the **Add** icon to add a new resolution.
3. In the new row that displays, enter the fields such as lookup code, display sequence, meaning, description, and so on to correspond to your needs.
4. Click **Save and Continue**.

If you have selected the **Enabled** check-box, The resolution is added to the **Available Resolutions** list under the **Map Resolutions to Outcomes** section.

### Step 3: Map Outcomes to Resolutions.

Administrators can map the outcomes to the available resolutions in the **Map Resolutions to Outcomes** section in the page.

To manage the outcomes and resolutions:

1. In the **Map Resolutions to Outcomes** section, do the following to map the outcomes to resolutions.
  - o Select an outcome in the **Outcomes** list.
  - o Select the resolutions from **Available Resolutions** list and move them to the **Selected Resolutions** list.
  - o To remove an existing mapping, select the resolutions from the **Selected Resolutions** list and move them to the **Available Resolutions** list.
2. Click **Save and Close**.

The outcomes are now mapped to the resolutions.

Once the outcomes and resolutions have been configured, these appear in the **Resolve Service Request** dialog box in the **Outcome and Resolution Code** list, and the user can enter simple and consistent resolution information about the SR.

## Ready to Use Outcomes and Resolutions

The following table lists the ready to use outcomes and resolutions.

Outcomes	Resolutions
Solution Provided	Knowledge Article FAQ Workaround identified
Unable to Solve Defect Logged	Enhancement Logged Training Required No Fault Found

Outcomes	Resolutions
Customer Abandoned	Failed attempts to contact Resolved by Customer

## Manage Resolutions

The administrator uses the Manage Service Request Resolutions to add resolutions only when they don't want to associate them to outcomes.

To add, edit, or delete resolutions without associating them with outcomes:

1. Sign in to the application as an administrator.
2. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Service Request
  - o Task: Manage Service Request Resolutions.
3. In the Manage Service Request Resolutions page, all resolutions for the lookup type **ORA\_SVC\_SR\_RESOLUTION\_CD** are displayed.
4. Click **Add** to add an outcome under the relevant lookup type. You also modify or delete the outcomes here.
5. Click **Save and Close**.



# 16 Adaptive Intelligence

## Overview of Adaptive Intelligence

Adaptive Intelligence enables you to augment your service team capabilities with intelligent, AI-powered features that are embedded directly within Fusion Service Center.

You can adopt them into your everyday workflows and boost your customer experience by delivering a more nimble and efficient response to service requests.

## Configure Service Request Similarity

### Overview of Service Request Similarity

Service Request (SR) Similarity enables an agent to troubleshoot issues accurately and efficiently, by finding similar SRs that may have been previously resolved.

SR Similarity uses adaptive intelligence (AI) for similarity computation, by considering the key standard or custom fields of an SR. The feature is seamlessly integrated within the SR review and edit workflow on the agent-facing user interface (UI).

The feature is currently applicable for English language implementations only.

Before deploying the feature, administrators and power users can test and evaluate similarity computation using the Administrator UI provided specifically for this purpose.

## Configure Users for the Administrator's Application

An application is available for testing and administration purposes. To access this application, you need to first configure the users.

You may want to define two types of users:

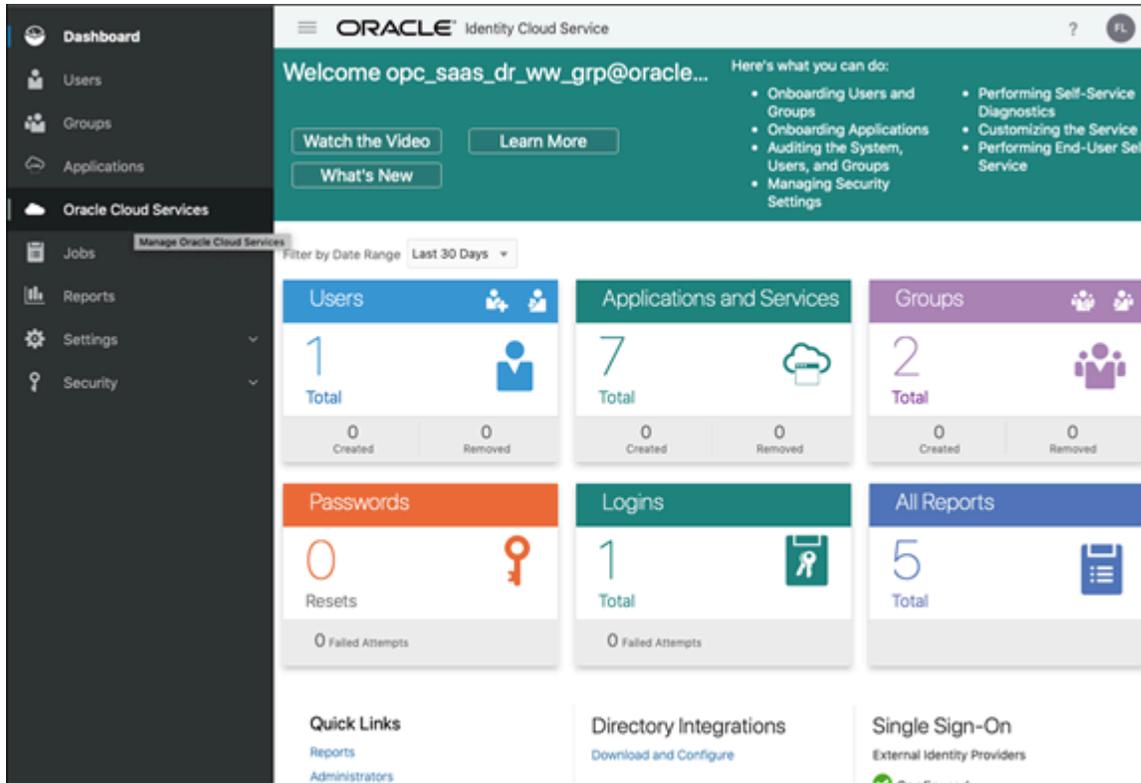
- Power users who will be using the application to test and evaluate the feature.
- Administrators who will be performing administrative operations such as scheduling the data ingestion job.

Here's how you map the users to similarity roles in Oracle Identity Cloud Service:

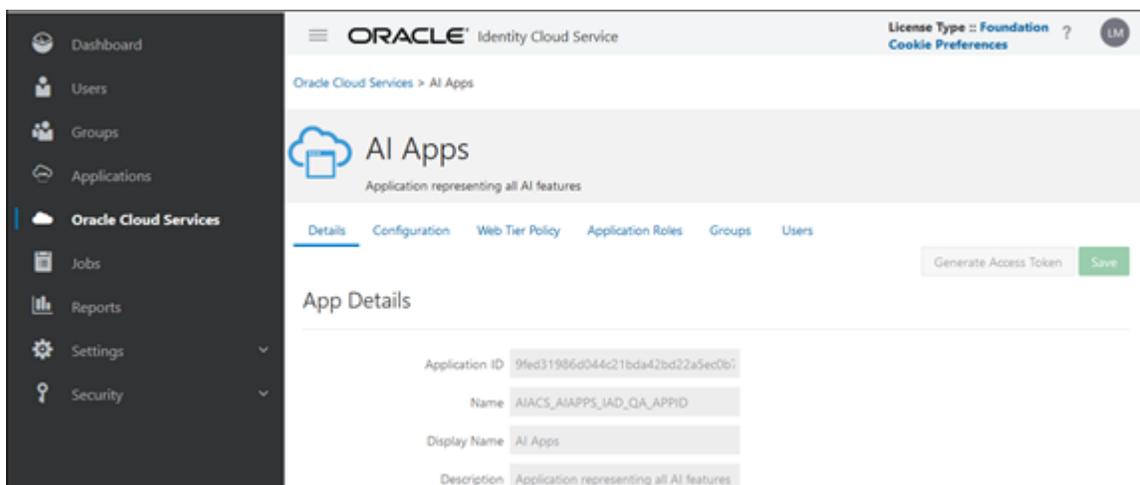
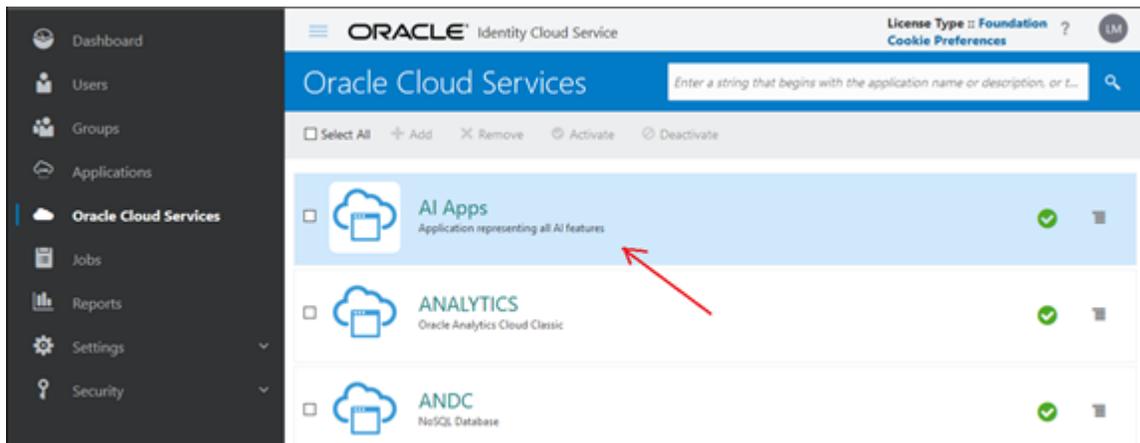
1. Navigate to the **Identity Cloud Service Administrator Console** and select **Oracle Cloud Services**.

For more information on accessing the Identity Cloud Service Administrator Console, see [How to Access Oracle Identity Cloud Service](#).

If the **Oracle Cloud Services** option isn't available, click **Applications**.



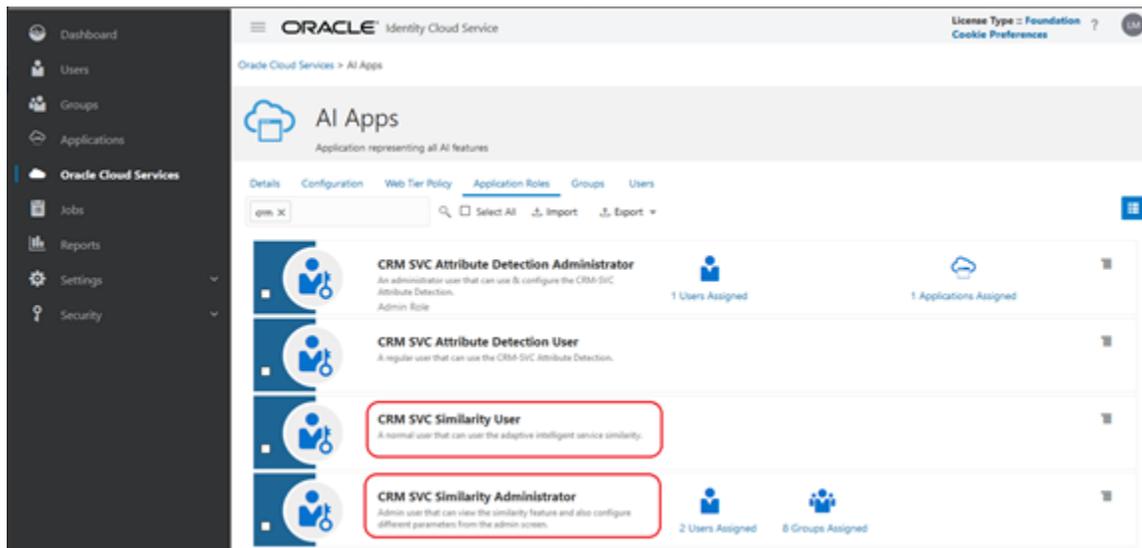
2. From the list of services, select **AI Apps**.



### 3. Click **Application Roles**.

You'll see two roles:

- CRM SVC Similarity Administrator, meant for the administrator to perform various configurations, such as, scheduling the data ingestion job, and viewing the similarity service version.
- CRM SVC Similarity User, meant for the power user to test SR Similarity with no data restrictions.

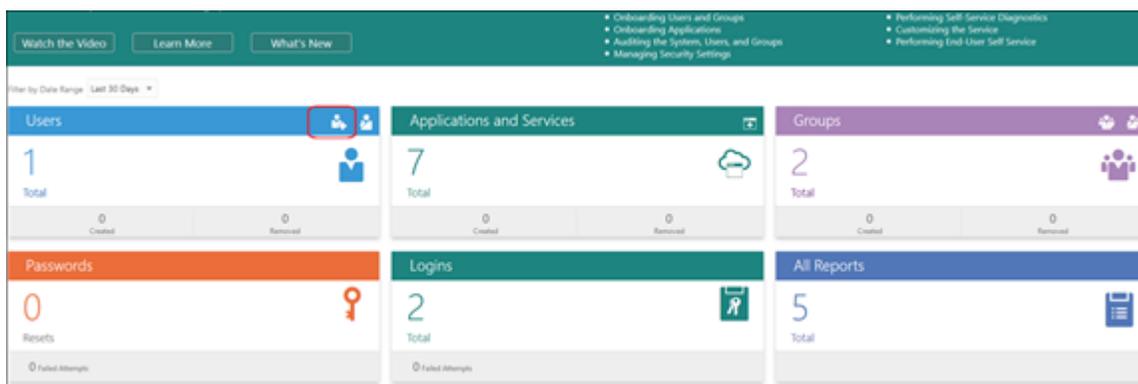


### 4. From the menu, select **Assign Users**.

This takes you to a page from where you can select users and associate them to the corresponding role, based on what role you want to assign to them.

After the role is granted, that user will be able to use the service.

**Note:** All users created in the application should be replicated in Identity Cloud Service. So, you should be able to assign existing users to the above 2 roles. However, if that's not the case, you can create new users by clicking on the + icon in the **Users** region, and then assign them to the roles.



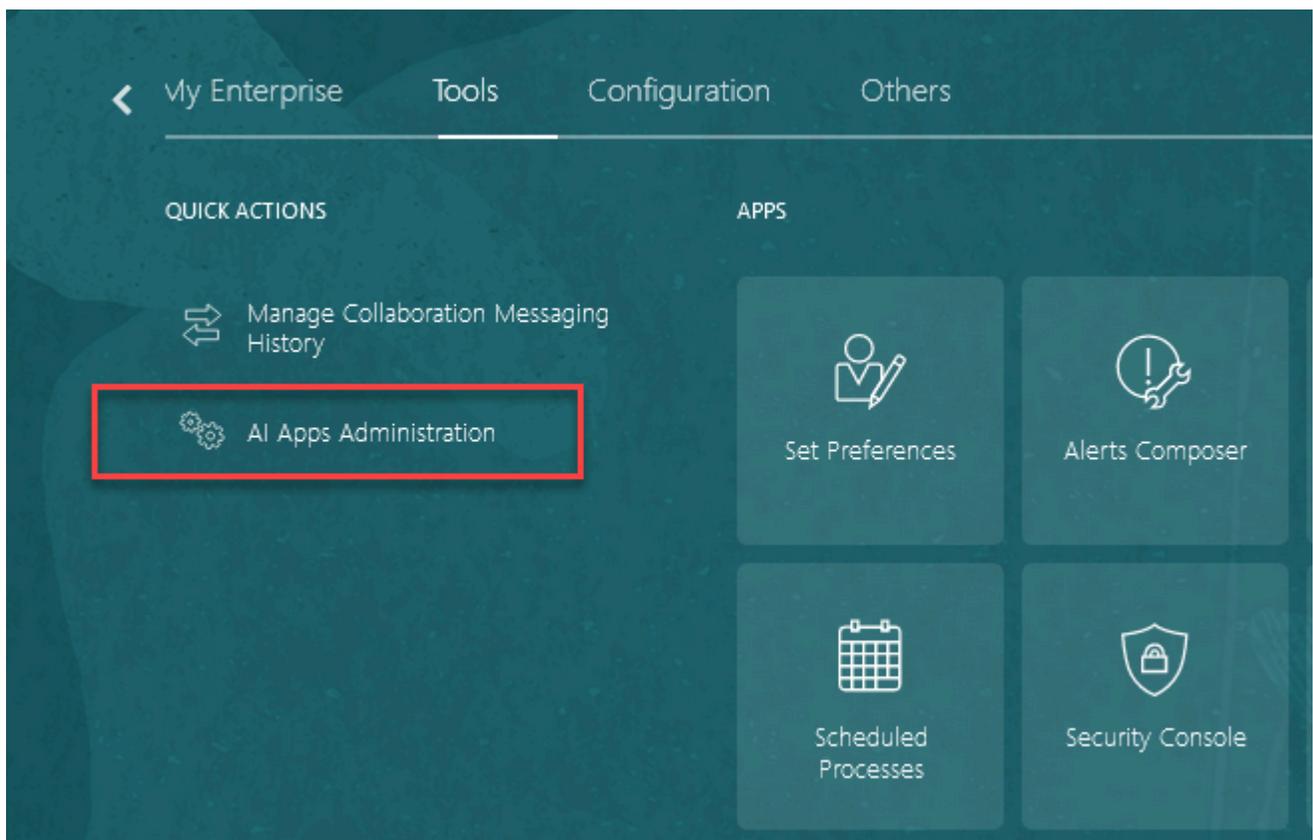
## Activate and Configure AI Similarity Service

The AI Similarity Administration page gives you quick access the Similarity Administration UI without going into the IDCS console to retrieve the URL of the host.

**Note:** To have access to this task you must have the HRC\_ADMINISTER\_AI\_APPLICATIONS\_PRIV (Administer Adaptive Intelligence Applications) privilege. This function privilege is included in a new seeded job role ORA\_HRC\_AI\_APPLICATIONS\_ADMINISTRATOR\_JOB (Adaptive Intelligence Applications Administrator).

Here is how you can quickly access the Similarity Administration page:

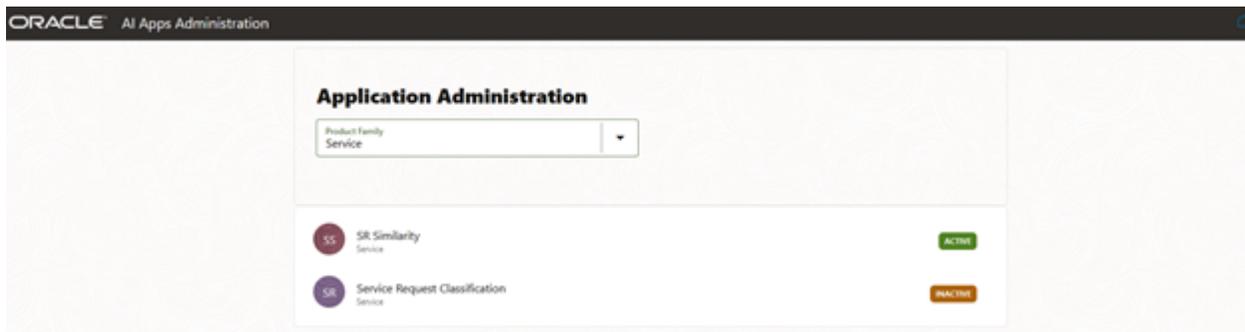
1. Log in to the Fusion application as a user with the Administer Adaptive Intelligence Applications privilege.
2. From the Tools menu, you can access the **AI Apps Administration** option, as shown in the following screenshot:



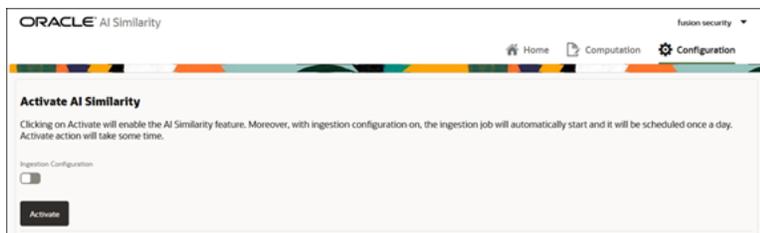
3. Click AI Apps Administration.

A new browser window opens displaying all of your AI applications.

4. Select **Service** from the Product Family menu, and then click **SR Similarity**.

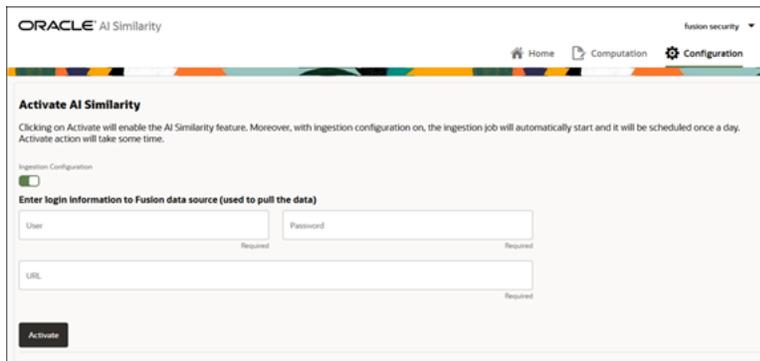


5. If the feature isn't yet activated, the **Activate** button will be displayed, along with the option to add the connection details at this point or later on (Ingestion Configuration switch). If you choose to only start the activation process, click the **Activate** button and wait until completed.

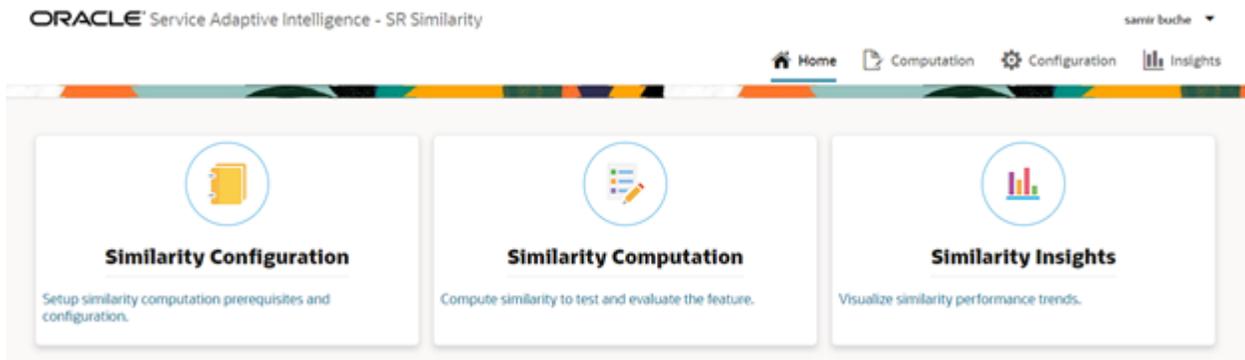


6. If you choose to add the connection details at the Activate step, then click on the switch and enter the username, password, and URL needed to connect to the application, and afterwards click **Activate**.

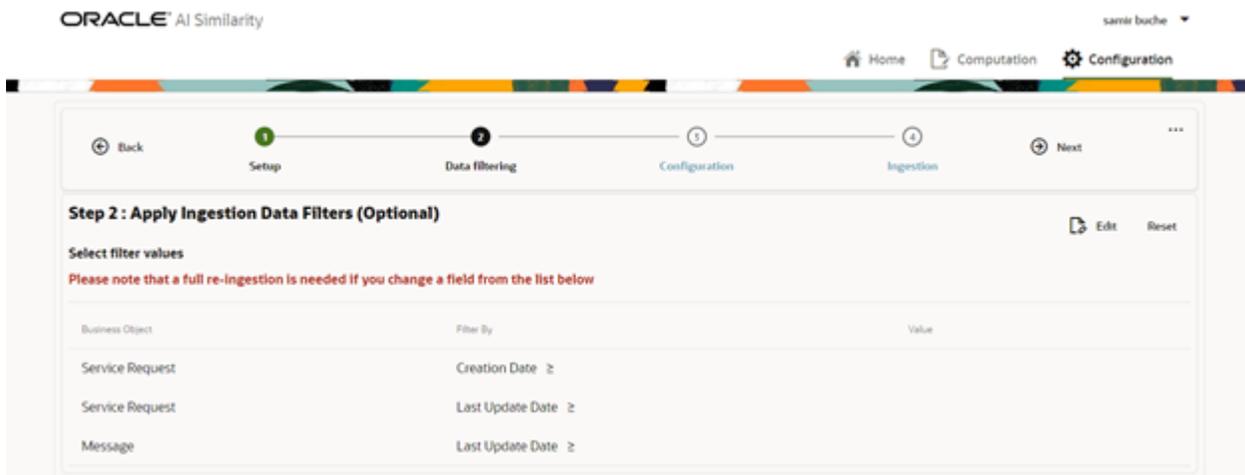
Username is the one having access to BI Publisher (extraction tool), and the URL is your application host. For example, if the application link is `https://host-fusionappsqa.fa.ocs.oc-test.com/homePage/faces/FuseWelcome`, then the URL to enter on the page is `https://host-fusionappsqa.fa.ocs.oc-test.com`.



7. After the activation is completed, click **Home > Similarity Configuration**.

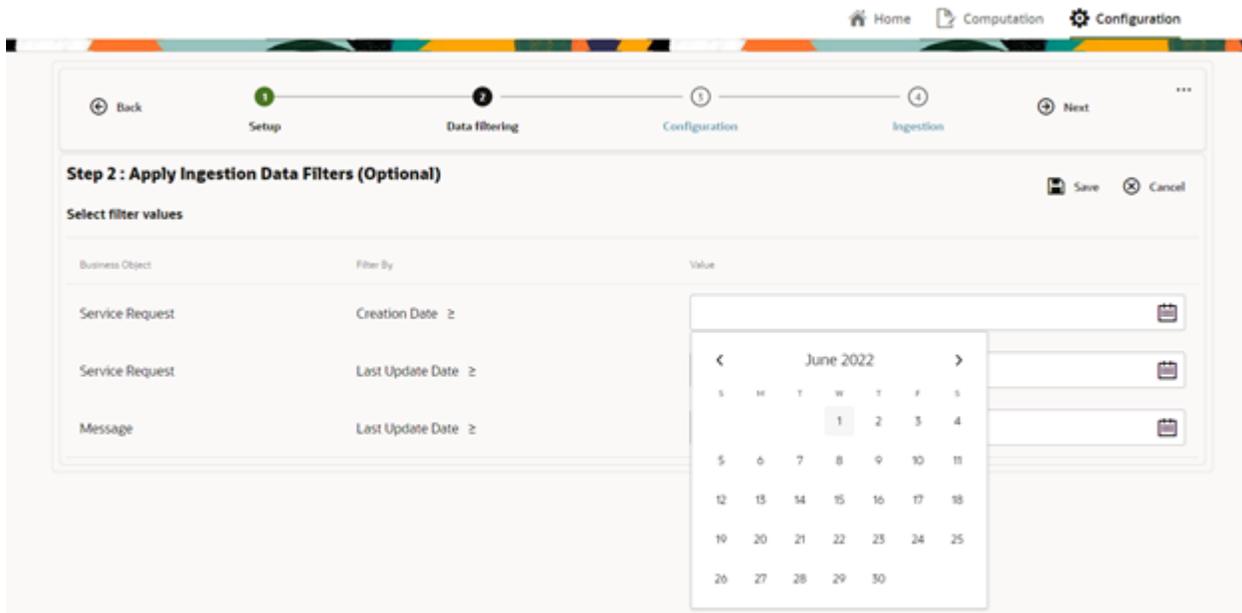


8. If you already activated the feature, in Step 2 you'll see the three fields added to allow you to filter the ingested data.

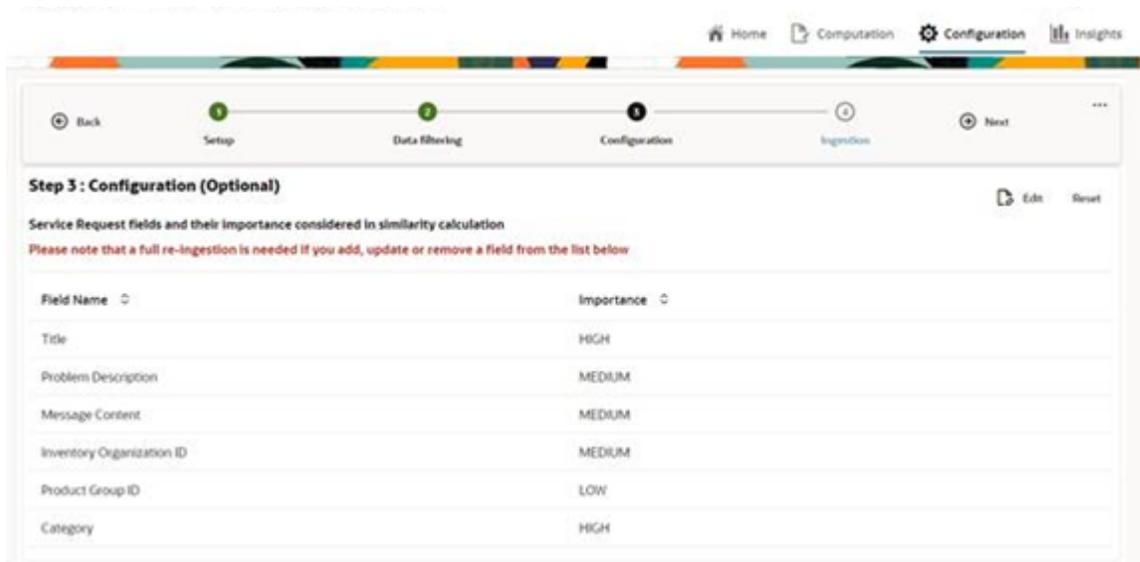


9. To add a filter, click **Edit** and add a date in the field, then when you're done, click **Save**.

**Note:** Any changes in this page will require full reingestion.



10. In the Configuration step, by default, the ready-to-use fields considered in the similarity calculation are displayed, along with their importance. Importance implies how much significance a field has in the calculation, and consequently has a bearing on what similar SRs are returned and the ranked order of their display in the results list.

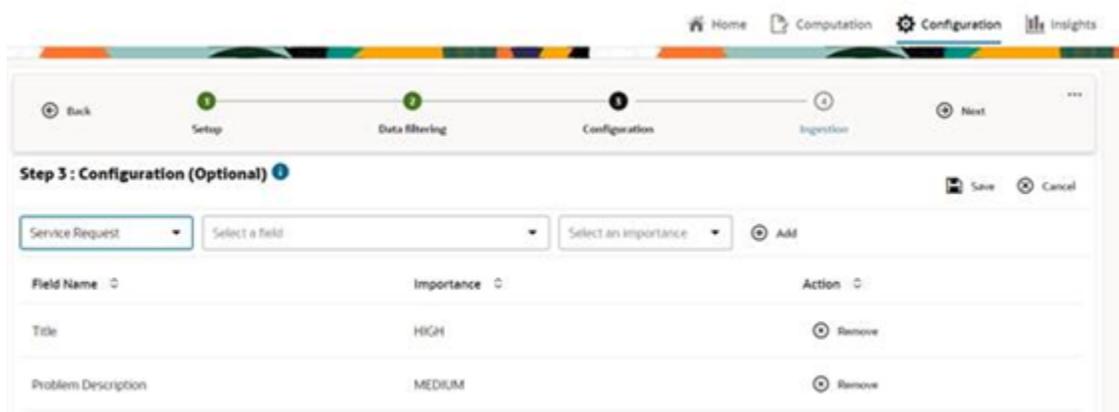


11. If you want custom or other standard fields to be ingested and taken into account by the algorithm, do the following:
  - a. Click **Edit**.
  - b. From the **Add Field** drop-down list, select the **Service Request** or **Message** object.
  - c. Start typing or select a field from the drop-down list.

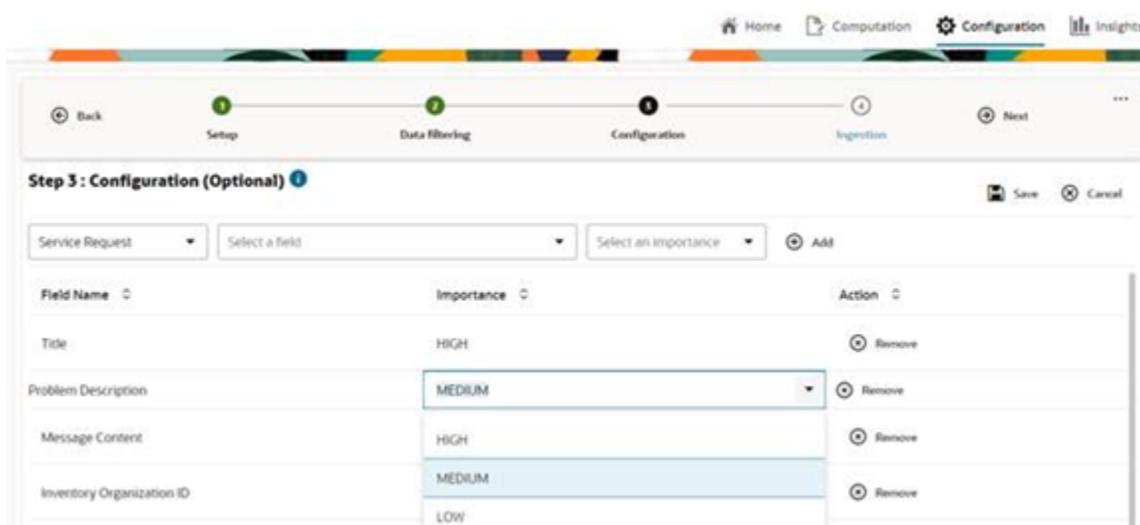
You can select the ready-to-use or customer fields.

- d. Select an importance from the drop-down list.
- e. Click **Add**.

**Note:** Adding or removing fields from the configuration impacts the accuracy of the results (similar SRs list). Add additional fields only if those fields contain relevant information that would make the list of similar SRs more accurate. As a recommendation, a few more fields added or replaced should be enough to influence the precision. Do not add multiple fields with the hope of improving the accuracy. On the contrary, it may have an adverse impact on accuracy, since an additional field means it's cannibalizing the importance of other fields.



- f. Double click the row if you want to change the importance of an already added field in the table.

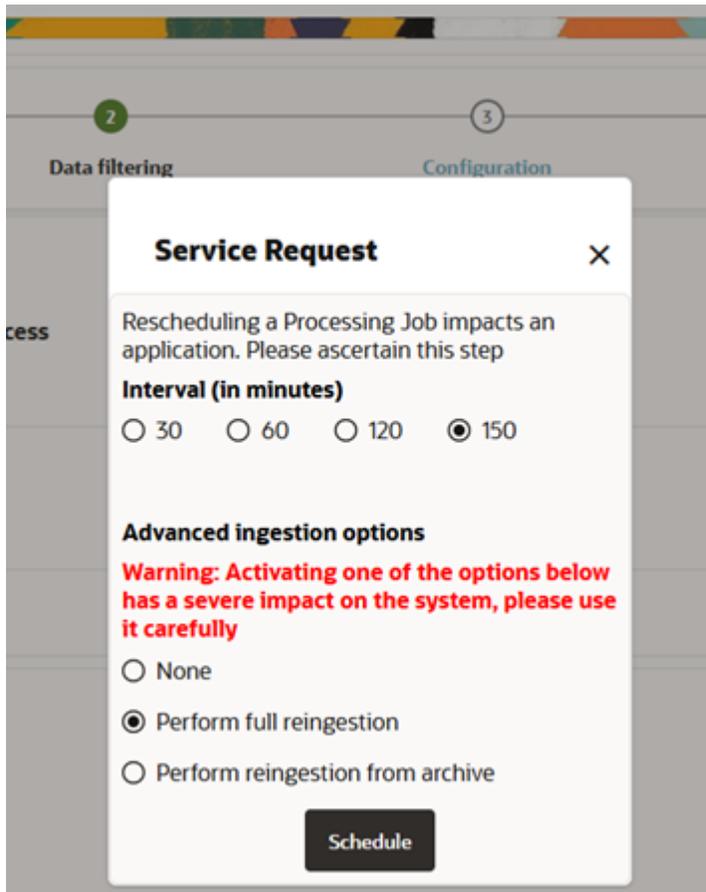


- g. Save the changes when ready.

A full reingestion is needed for the changes to take effect.

**Note:** Changing the importance of a field alone doesn't need to full reingestion. An incremental ingestion is enough.

12. If reingestion is required, choose a time interval, then select **Perform full reingestion** from the dialog box and click **Schedule**.



The reingestion job will run according to the schedule you set.

## Review Ingestion Job Status

In addition job start and schedule times, you can review a job's status during the ingestion of SR and Message data. Statuses show whether the job is in pre-processing stage, is running, or has successfully completed.

<b>Schedule Status</b>	<b>Enabled</b>
<b>Ingestion Status</b>	
<b>Job Name</b>	<b>Status</b>
Service Request Preprocessing	Succeeded
Service Request Ingestion	Succeeded
Messages Ingestion	Running

## Enable Service Request Similarity

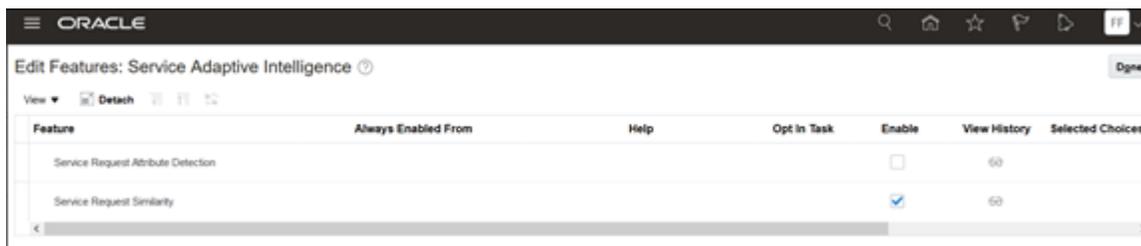
You must enable the SR Similarity feature before you can start using it in the application.

Here's how you do it.

1. Click **Navigator > My Enterprise > Offerings**.
2. On the Offerings page, select the **Service** offering.
3. Click the **Opt In Features** button.
4. On the Opt In: Service page, select **Enable** check box for the **Service Adaptive Intelligence** feature.
5. Click the **Features** (pencil) icon.

The Edit Features: Service Adaptive Intelligence page is displayed.

6. Select the **Enable** check box for the **Service Adaptive Intelligence** feature.



7. Click **Done**, and then on the Opt In: Service page, click **Done** again.

The Service Request Similarity feature is now activated.

**Note:** You can also enable this feature by setting the SVC\_ENABLE\_SIMILAR\_SR profile option to **Yes**.

8. Verify and test the feature in the application:
  - a. Navigate to service requests in the application.
  - b. Click an existing service request.
  - c. Click the **Restore Pane** arrow.

If you can view the **Similar SRs** tab, the feature has been enabled.

- d. Click the **Similar SRs** tab.

You can test and start using this feature.

## Test and Evaluate Service Request Similarity

Before the SR Similarity feature is enabled for the application users, power users and administrators should test and evaluate the feature in the test application. After the feature is configured, administrators can optionally verify and test it in the test application.

Here's how power users and administrators test and evaluate the feature in the test application.

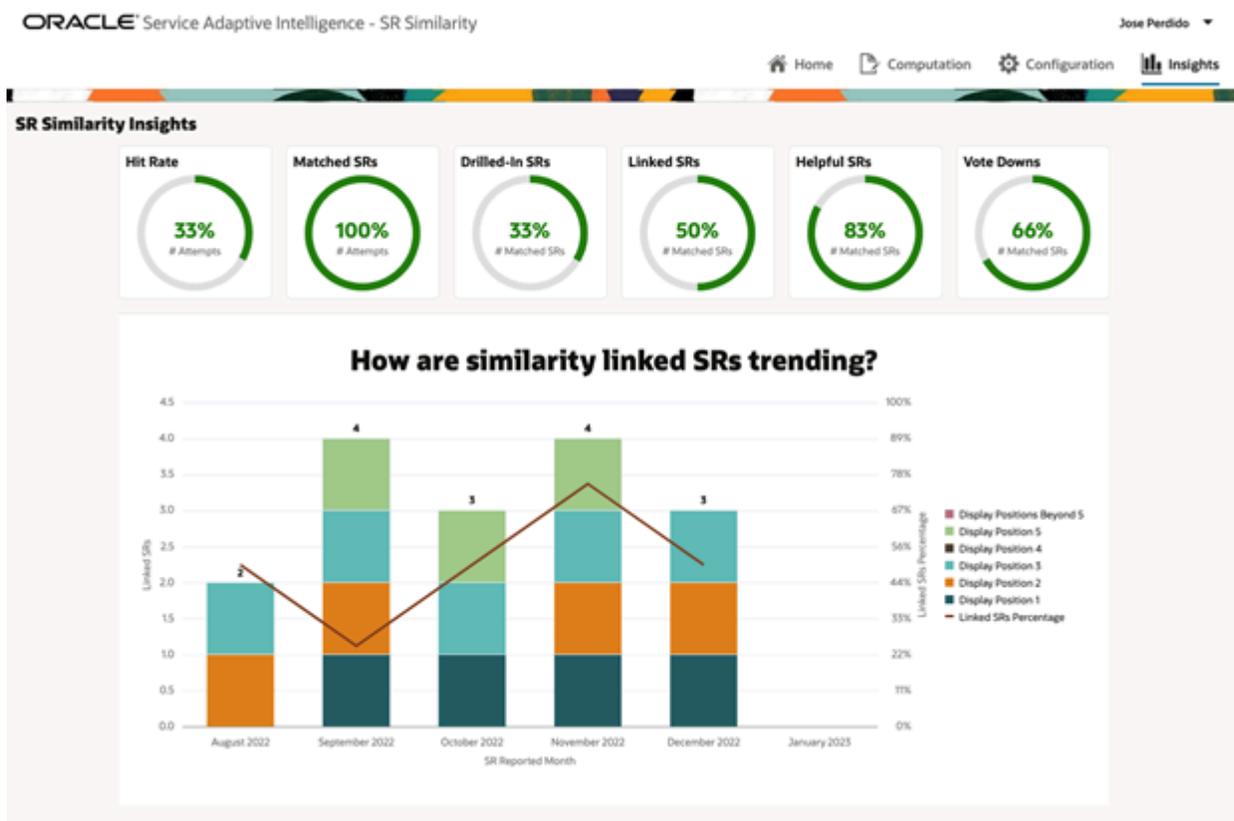
1. Sign in to [https://<your\\_host>/crm-svc/ai-similarity/](https://<your_host>/crm-svc/ai-similarity/) with your credentials and click **Similar SRs Computation**.
2. Evaluate the feature by entering known phrases, words, or strings for the SR field such as Title, Description, Message, or SR Reference Number (if known), and view the results displayed.
3. If the similar SRs displayed are not along expected lines, tweak the importance or the fields configured for similarity computation. However, an addition of a new field or removal of an existing field entails full re- ingestion of data.

## Similarity Insights Dashboard

The Insights Dashboard helps you understand how the Similarity feature is used, such as what links or icons users clicked while viewing the list of similar SRs during a given time period.

The insights also help you fine tune your configuration such including or excluding SR or Message columns or altering their weight or importance in computing similarity.

Insights data is refreshed on a daily basis. There are no additional steps needed to enable insights.



To view the dashboard to the following:

1. Sign in to Fusion Service as a user with the following roles: CRM SVC Similarity Administrator and Adaptive Intelligence Applications Administrator.
2. Click the Tools menu.
3. In the Quick Actions pane, click AI Apps Administration.

4. From the list of AI applications on the Application Administration page, click SR Similarity.
5. In the similarity landing page, click on Similarity Insights.

The Insights Dashboard has the following insight categories:

- **Hit Rate:** A percentage of Candidate SRs that had at least one linked or opened similar SR.
- **Matched SRs:** A percentage of matched SRs for all similarity attempts.
- **Drilled-In SRs:** A percentage of opened or drilled-in SRs from the list of similar SRs.
- **Linked SRs:** A percentage of linked SRs from the list of similar SRs.
- **Helpful SR:** A percentage of helpful SRs from the list of similar SRs.
- **Vote Downs:** The number of thumbs down from the list of similar SRs.

## Configure Service Request Classification

### What are service request classifications?

When your customer sends a service email for a new issue, the email is converted to a Service Request (SR). You can quickly classify service requests by auto-populating the Product, and Category fields. Use the Service Request (SR) Classification feature, which applies to requests created by the inbound email channel, to streamline the overall process of categorizing and assigning SRs.

The request should have its Title, Problem Description, and Primary Point of Contact prepopulated. However, fields such as **Category** and **Product** that are useful in routing the request to its proper queue and assignee are blank. By enabling the Service Request (SR) Classification feature, the **Product**, and **Category** can be auto populated when the request is created. The agent doesn't need to populate it manually. This feature applies to requests created by the inbound email channel.

**Note:** This feature is currently available for English language only.

Attribute predictions come from the Adaptive Intelligence (AI) applications platform that's already provisioned for you.

Here's a brief outline of how the SRs are classified:

1. The database contains records of all resolved requests created from past inbound emails. These requests have either product, category, or both already populated. Resolved requests are considered correct for the purpose of building the Machine Learning (ML) model within the AI application.
  - **Note:** Accurate model predictions rest on the fact that historical resolved requests have correct labels.
2. You must activate the tenant from the Configure SR Classification Using Adaptive Intelligence page. After you activate the tenant, data from closed requests is imported by the AI application.
3. The AI model automatically learns, so it returns the predicted product or category based on data from closed requests in Fusion Service.
4. Based on analysis of the subject line and body of the email, the model classifies requests and returns products and categories that have the highest confidence.
5. While reviewing the assigned request, an agent can manually update the AI-labeled fields, if required.

## Prerequisites for Classifying Requests

Here's a list of prerequisites required for classifying service requests (SRs) created from inbound emails:

- Assign the required roles to your administrators as described in [Required Roles](#).
- Ensure that you have enough data for resolved requests in your application. You must have a minimum of 50 records to start training the model. For the best results, Oracle recommends that you train the model with at least 10,000 records to have quality predictions. Each record must have a distinct category or product as required.

**Note:** The quality of predictions depends on the volume and quality of data that's used to train the model.

## Required Roles

To activate service request (SR) classification in the Classification administration UI, you must first assign the following roles to your administrators:

- **CRM SVC Attribute Detection Administrator:** You can find this role in the application for AI Apps in Oracle Identity Cloud Service (IDCS).
- **Adaptive Intelligence Applications Administrator:** You can add this role from the Security Console.

Users who are assigned these roles can access the REST service of SR Classification Prediction Service and the administration UI of SR Classification.

## Required Connections and Validations

The following pages help you to make the required connections and validations, so that Fusion Service can detect request attributes and make predictions.

### **Pages for the Required Connections and Validations**

Page	What it does
Configure SR Classification	Enables the AI application to connect to Fusion Service. You must specify your Fusion Service user name and password here. These details are used to pull in the data from Fusion Service.  For more information about this page, see <a href="#">Start the Data Ingestion and Model Training</a> .
Inbound Email Configuration and Validation page in Fusion Service	Validates whether the configuration is complete, the model is built, and the prediction service works effectively. After the applications are connected, you can create a sample payload and see a sample prediction. You can test the AI feature to validate whether the Classification API prediction is correct.  For more information about this page, see <a href="#">Validate the Setup</a> .

# Set Up Fusion Service for Service Request Classification

## Steps to Set Up Request Classification

Here's the sequence of procedures that you must complete to set up classification for service requests:

**Note:** You must complete each step in the following order:

### Setup Steps

Step	Topic
1.	<i>Enable Request Classification</i>
2.	<i>Configure Profile Options</i>
3.	<i>Validate Authentication with the AI Application</i>
4.	<i>Start the Data Ingestion and Model Training</i>
5.	<i>Validate the Setup</i>

## Enable Request Classification

You must enable the classification of service requests created from inbound emails.

1. Sign in to Fusion Service as a setup user.
2. Navigate to the **Setup and Maintenance** work area and select the **Service** offering.
3. Click **Change Feature Opt In**.
4. On the Opt In: Service page, click the **Service Adaptive Intelligence** row and select the **Enable** check box.
5. On the same row, click **Edit** in the **Features** column.
6. On the Edit Features: Service Adaptive Intelligence page, click the **Enable** check box for **Service Request Classification**.
7. Click the **Email Classification** row and select the **Enable** check box.
8. Click **Done**.
9. Click **Done** on the Opt In: Service page.

## Configure Profile Options

You can set options for classifying service requests (SRs) by configuring some email profile options. These profile options are predefined, but you can change their values based on your requirements.

Here are the profile options to configure followed by the procedure for configuration:

### Profile Options for Classifying Service Requests

Profile Option	Description
ORA_SVC_ENABLE_ATTR_DETECTION_MASTER_IDCS_APP	<p>Enables the use of the master IDCS application authentication for SR classification REST API calls. The default value is No.</p> <p><b>CAUTION:</b> You must enable this profile option by setting the value to Yes, otherwise Fusion Service can't connect to the AI application.</p>
SVC_ENABLE_INBOUND_MSG_SR_CATEGORY_PREDICTION	<p>Enables the prediction for the category attribute during the processing of inbound emails to create SRs. The default value is Yes.</p> <p>To turn off category predictions, set the value to No.</p>
SVC_ENABLE_INBOUND_MSG_SR_PRODUCT_PREDICTION	<p>Enables the prediction for the product attribute during the processing of inbound emails to create SRs. The default value is Yes.</p> <p>To turn off product predictions, set the value to No.</p>
SVC_INBOUND_MSG_PREDICTION_THRESHOLD_FOR_SR_CATEGORY_ID	<p>Specifies the threshold value to decide whether the predicted category ID can be stamped on the SR. The default value is: 0.6</p> <p>This means that if the prediction has a confidence level of more than 60%, only then you stamp the predicted value on the SR. Otherwise, don't stamp it on the SR.</p> <p>It's possible to run the service in the dark mode by setting the threshold value to 1.0. In the dark mode, the prediction happens but it isn't stamped on the SR. This way, you can see what the correct labels would have been if the accuracy had been set lower.</p>
SVC_INBOUND_MSG_PREDICTION_THRESHOLD_FOR_SR_PRODUCT_ID	<p>Specifies the threshold value to decide whether the predicted product ID can be stamped on the SR. The default value is: 0.7</p> <p>This means that if the prediction is more than 70% accurate, only then you stamp the predicted value on the SR. Otherwise, don't stamp it on the SR.</p> <p>It's possible to run the service in the dark mode by setting the threshold value to 1.0. In the dark mode, the prediction happens but it isn't stamped on the SR. This way, you can see what the correct labels would have been if the accuracy had been set lower.</p>

1. Sign in as a setup user or administrator.
2. Navigate to the Setup and Maintenance work area.
3. Open the Tasks panel tab and click **Search**.
4. Search for and click the **Manage Administrator Profile Values** task.
5. On the Manage Administrator Profile Values page, individually search for each of the profile options listed above.
6. Do the following for each profile option:
  - a. In the Profile Values region, in the **Profile Level** drop-down list, ensure that **Site** is selected.
  - b. For the first three profile options, select **Yes** from the **Profile Value** drop-down list.
  - c. To change the value for the last two profile options, specify a value in the **Profile Value** field as explained in the table.

7. Click **Save**.

## Validate Authentication with the AI Application

Now you must validate the authentication between Fusion Service and the AI application. This step ensures that all the previous steps are completed correctly.

Use the Inbound Email Configuration and Validation page in Fusion Service to complete the validation.

1. Open the Tasks panel tab and click **Search**.
2. Search for and click the **Manage Email Configuration, Registration, and Validation** task.
3. On the Inbound Email Configuration and Validation page, navigate to the Email Attribute Detection area.
4. In the Test Authentication area, click **Validate**.

This step validates whether you're able to generate the token. If the validation is successful, a tick mark indicates that the authentication service is working fine, and all settings are done correctly in Fusion Service.

## Filter the Data for the Machine Learning Model

Duplicate and inactive requests negatively impact the quality of predictions.

If you want to clean up the data before it's fed to the Machine Learning API, create exclusion rules for data ingestion. These rules help to filter out the duplicate or inactive data, so they're excluded from being ingested by the ML model.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Communication Channels
  - o Task: Manage Email Configuration, Registration, and Validation
2. In the Inbound Email Configuration and Validation page, navigate to the SR Classification area.
3. In the Ingestion Exclusion Rule area, click **Add**.
4. In the **Object** field, select one of the following: Service Request, Internal Service Request, or HR Help Desk Request.
5. In the **Attribute** field, select the object attribute based on which you want to filter the data.
6. In the **Operator** field, select a suitable operator such as **Contains**, **Equals**, or **Is Not Null**, depending on the rule you're creating.
7. In the **Value** field, specify the value for the exclusion rule.

Here are some examples:

- o Requests created by messages from WhatsApp: Here, you could select the attribute as **Channel Type**, operator as **Equals** or **Contains**, and the value as **WhatsApp**.
- o Requests created by a user whose email pattern contains test: These requests aren't to be considered for training the ML model, because this would be test data.

8. Click **Save**.

## Start the Data Ingestion and Model Training

Now, you can build a prediction model based on data pulled from closed and resolved requests created from inbound emails.

### Before you start

Data from the last 6 months is used for the model training so the latest data is always included. You have the option to retrain the model on the latest data every 2 weeks. Every time the model is retrained, older data is discarded and new data is added.

### Here's what to do

1. Sign in to Fusion Service with either the CRM SVC Attribute Detection Administrator or Adaptive Intelligence Applications Administrator role.
2. Click the **Tools** menu.
3. In the **Quick Actions** pane, click **AI Apps Administration**.
4. From the list of AI applications on the Application Administration page, click **Service Request Classification**. The Configure SR Classification page is displayed, and the **Configuration** tab is selected by default.
5. In the Credentials to connect to Fusion Service area, specify the following details:
  - a. In the **User Name** field, enter the user name for your Fusion Service environment.
  - b. In the **Password** field, enter the password for your Fusion Service environment.
  - c. In the **Endpoint** field, enter the Oracle Fusion Service BIP Host name.
  - d. Click **Save**.

**Note:** After the credentials are saved, you see a **Credentials Saved** message, and the **Activate** button in the Activate Tenant area is enabled. This indicates that the AI application can ingest the data from Fusion Service.

- e. To ignore the changes, click **Cancel**.
6. In the Activate Tenant area, do the following:
    - a. Click the **Model Retraining (Biweekly)** check box if you want the model to be retrained on the latest data every 2 weeks.
    - b. Click **Activate** to schedule the data ingestion and model training. If it's been activated before, click **Reactivate**.

#### Results:

The data ingestion and model training begins and the process runs in the background.

## Validate the Setup

Validate the settings to see whether your model is working and that you're able to make a call to the prediction service.

1. Open the Tasks panel tab and click **Search**.
2. Search for and click the following task: **Manage Email Configuration, Registration, and Validation**.
3. On the Inbound Email Configuration and Validation page, navigate to the SR Classification area.
4. Navigate to the Test SR Classification API area.  
Here, you simulate an inbound email.
5. Enter a subject in the **Subject** field.
6. In the **Plain Text Body** field, enter the text for the body of the email.
7. From the **Stripe Code** drop-down list, select the relevant stripe code.
8. From the **Business Unit** drop-down list, select the relevant business unit.
9. Enter a value in the **Language** field. For example, English. The language must be a one that is read from left to right.
10. Click **Validate**.
11. If the validation is successful, a tick mark is displayed.

This tick mark indicates that the process is working successfully. And it indicates that you're able to make a call to the SR Classification API that's deployed on the Adaptive Intelligence Apps platform. The Attribute Predictions area displays the attribute name, value, and accuracy for the prediction.

**Note:** If the data set of SRs in the Fusion Service database isn't very good, the accuracy and confidence of the prediction is low.

## Test Service Request Classification

### Test the Classification for New Requests

After completing the validations, you can conduct a test to see whether the category, and product are being stamped on the newly created service request (SR).

#### Before you start

**Note:** If the values of the profile options for prediction threshold are high, then it's possible that the category and product aren't stamped on the request. Therefore, it's a good idea to lower the threshold values using the profile options before sending the test email.

#### Here's what to do

1. Send a test email to the appropriate email channel that's synced with the predicted business unit.
2. Open the request and view the details in the **Summary** tab.
3. Verify whether the prediction attributes are present on the request.
4. After you complete testing, you can reset the values of the profile options for prediction threshold per your requirements.

## Insights Dashboard to Evaluate Accuracy

### About the Insights Dashboard

The insights Dashboard helps you understand prediction accuracy and coverage trends.

The Insights Dashboard provides analytical reporting to view the trend of accuracy and coverage metrics. You don't need to do anything to enable insights.

The Insights Dashboard provides the following categories of insights:

- **Activity and Coverage Insights.** Measured by the count of requests that are labeled, not labeled, correctly labeled, or incorrectly labeled. These insights trend

over time to give you a grasp of their variation across days, months, or years.

## ORACLE® Service Adaptive Intelligence - SR Classification

# Accuracy and Coverage

Category

Product

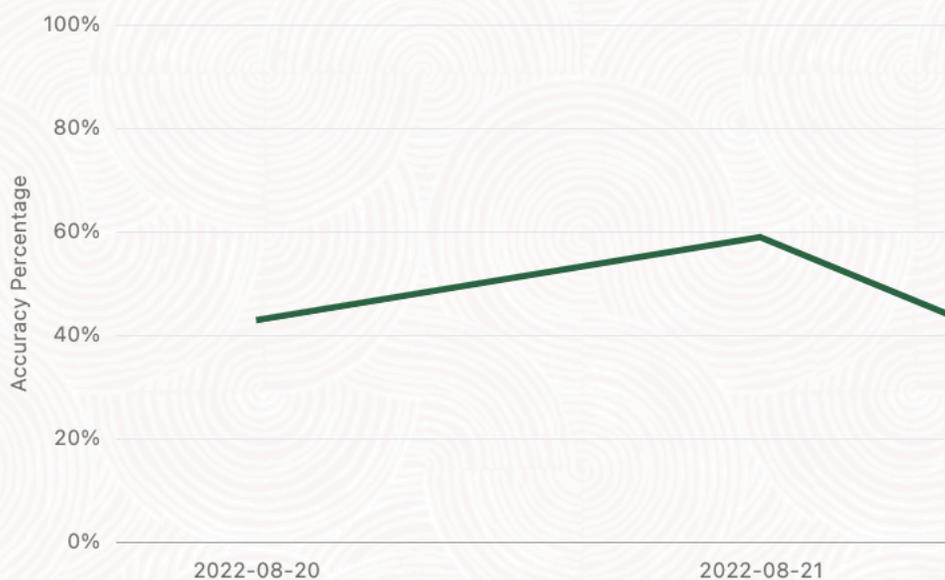
Correctly Labeled

**74**

Incorrectly Labeled

**27**

## Accuracy



- **Accuracy Insights.** Measured by accuracy percentage. This is the count of correctly labeled requests expressed as a percentage of total count of requests labeled by AI. These

insights trend over time to give you a grasp of their variation across days, months, or years.

## ORACLE® Service Adaptive Intelligence - SR Classification

# Accuracy and Coverage

Category

Product

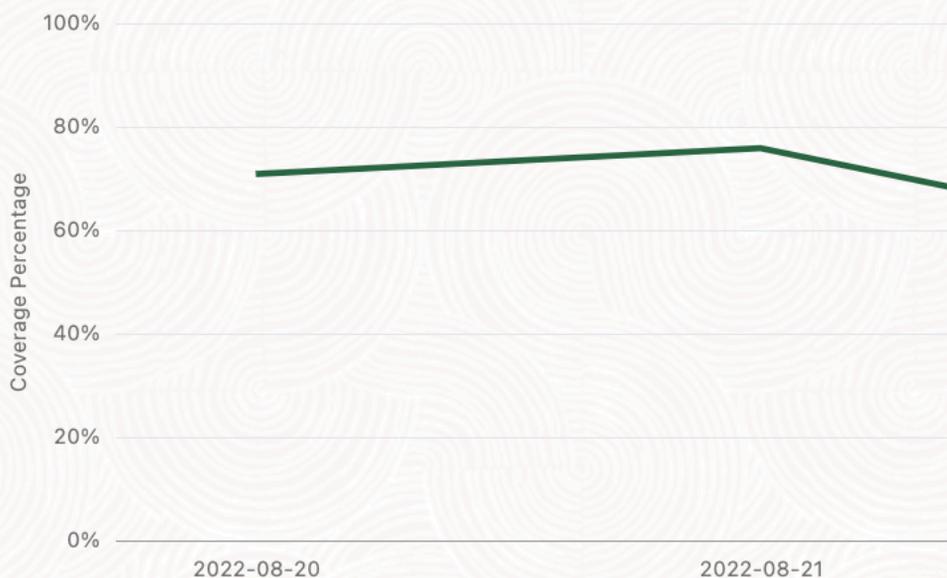
Correctly Labeled

**74**

Incorrectly Labeled

**27**

## Coverage



- **Business Impact Insights.** Measured by the average time to resolve requests.

## ORACLE Service Adaptive Intelligence - SR Classification

# Accuracy and Coverage

Category

Product

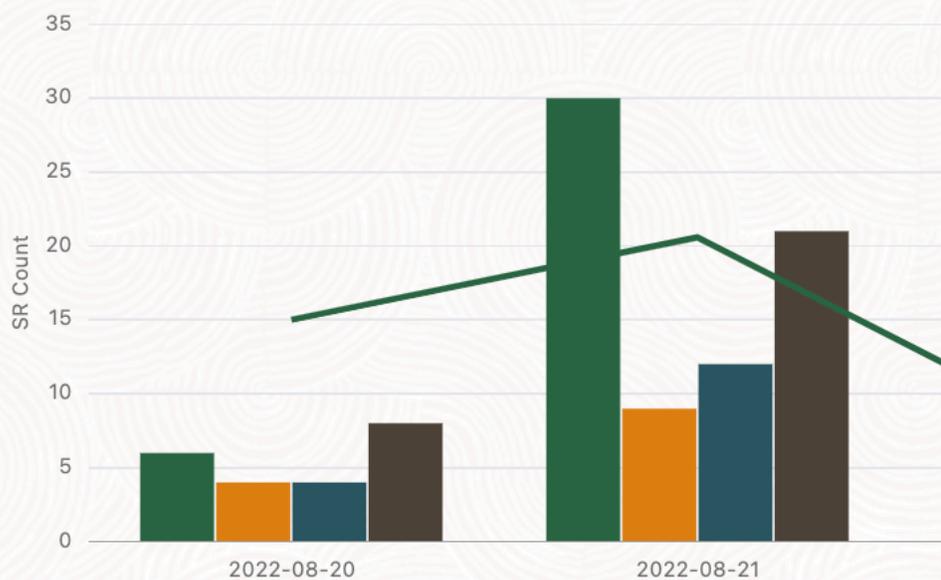
Correctly Labeled

**74**

Incorrectly Labeled

**27**

SR Count



You can generate a graph by selecting the required filters.

Here are some key points about the graph:

- For each of the insights, the x-axis of the graph shows the timeline.
- The graph shows two different views of the data:
  - In terms of actual volume of requests
  - In percentages, which are a proportional view
- The overall number of closed requests is divided into different categories, and each of them is shown separately in the first line.
- The graph shows the following details:
  - **Correctly Labeled:** Requests that were correctly labelled by the prediction service.
  - **Incorrectly Labeled:** Requests that were relabeled by agents because the prediction service yielded an incorrect label.
  - **Unlabeled:** Requests that remained unlabeled by the prediction service because the confidence was too low.
  - **Manually Labeled/Relabeled:** These requests are a combination of:
    - **Manually Labeled** - Requests with no initial label, or unlabeled requests
    - **Relabeled** - Incorrectly labeled requests
  - **Avg Time to Resolve:** The average time taken to resolve requests that were classified using the prediction service.

**Note:** For the Activity and Coverage insight:

- The y-axis of the graph shows the request count and cumulative percentage.
- The line graph for the correctly labeled requests is also displayed. This graph denotes the percentage of correctly labeled requests averaged over the whole time period.

## Use the Insights Dashboard

This procedure covers using the insights dashboard.

1. Sign in to Fusion Service as a user with the following roles: CRM SVC Attribute Detection Administrator and Adaptive Intelligence Applications Administrator.
2. Click the **Tools** menu.
3. In the **Quick Actions** pane, click **AI Apps Administration**.
4. From the list of AI applications on the Application Administration page, click **Service Request Classification**.
5. On the Configure SR Classification page, click the **Insights** tab.
6. On the Accuracy and Coverage page, click the **Category** or **Product** tab, depending on which report you want to view.
7. Select one of the following options from the **Insights** drop-down list:
  - **SR Count:** Shows the count of SRs that are correctly labeled, incorrectly labeled, unlabeled, and manually labeled or relabeled.
  - **Accuracy:** Shows the accuracy percentage. This is the percentage of correctly labeled SRs out of the total number of SRs that were labeled by AI.
  - **Coverage:** Shows the coverage percentage. This is the percentage of correctly and incorrectly labeled SRs out of the total number of SRs that were labeled by AI.

8. Do one of the following:
  - o Set **Exact Match** to **On** if you want the label to be counted as correct when there's an exact match between actual and predicted values for product or category.
  - o Set **Exact Match** to **Off** if you want the label to be counted as correct when there's a match within the same hierarchy.
9. In the **Display by** drop-down list, select one of the following options:
  - o **By Day**
  - o **By Month**
  - o **By Year**
10. In the first date picker, select the start date for the report.
11. In the second date picker, select the end date for the report.



# 17 Enable Productivity Tools

## Enable Productivity Tools

Productivity tools show as features on service request create or edit pages.

The following table lists productivity tools that are available for service requests.

Productivity tool	Description	Profile Option Code
SmartText	A reusable fragment of text that you can insert in messages and fields	SVC_ENABLE_STD_TEXT_IN_SR
Keyboard Shortcuts	A combination of keyboard keys that can be used to quickly access actions and buttons on the service request pages.	SVC_ENABLE_KEYBOARD_SHORTCUTS_IN_SR
SR Audit	A subtab that displays the history of service requests from the time they're created.	SVC_ENABLE_AUDIT_IN_SR
Severity color coding	A way to color code severity levels so the user can quickly see the SR's severity.	SVC_ENABLE_SEVERITY_COLOR_IN_SR
Knowledge	A list of knowledge articles to help agents find and use the appropriate details.	SVC_ENABLE_KNOWLEDGE_IN_SR
Click to Edit	A way to perform inline editing of records, update records without drilling down, maintain an overview of the SR list pages, and simplify SR data entry.	SVC_ENABLE_CLICK_TO_EDIT

Productivity tools are disabled by default. Here's how you enable them:

1. In the Setup and Maintenance Work area, go to the following:
  - o Offering: Service
  - o Functional Area: Productivity Tools
  - o Task: Manage Global Search Profile Options
2. Search for the profile option code for the productivity tools that you want to add.
3. In the **Profile Values** section for the profile option code, select **Yes** in the **Profile Value** drop-down list.
4. Save the configuration.

Now, you can set up and configure each tool according to your requirements.

## Update the Status List Order

The status list on the Summary Details page shows a list of statuses that can be associated to a service request. The order of statuses displayed in the list depends on their assigned ranking. Here's how you update the status ranking:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Service Request
  - o Task: Manage Service Request Status Values
2. Update the **Ranking** column to position the status in the status list according to your requirements.
3. Click **Save and Close**.

### Related Topics

- [Add Severity Values to Requests](#)
- [How do I manage SmartText entries?](#)
- [How do I update existing setup data?](#)

## How do I manage SmartText entries?

A SmartText entry is a reusable fragment of text that you or your users can create and use in service request messages. You can also create SmartText messages to use in chat.

As an administrator, you can create public SmartText entries that all users can use. Users can't edit these entries.

You can create SmartTexts in multiple languages. You can use rich-text to create SmartText entries in service request message fields by enabling HTML. Other service request fields, such as Problem Description, Solution Description and Transfer Service Request only support plain text. You can also create SmartText entries for chat.

You can create SmartText entries for a specific business unit if you have the HZ\_ENABLE\_MULTIPLE\_BU\_CRM profile option enabled (set to Y). With this profile option enabled, the Business Unit drop down list is displayed in the Manage SmartText UI so you can assign a BU at the time you create a new SmartText. For more information, see [Manage Common CRM BU Profile Options for Service BUs](#).

You can define where to save the SmartText entry, insert variables in the entry, and choose to share the SmartText entry by using the following availability options:

- **Always:** Select this option to make the SmartText entry available to users at all times.
- **Interval:** Select this option and define the period during which this entry is available to users.
- **Disabled:** Select this option to disable the SmartText entry and display it in the public folders for the users.

## Required Privileges

The following table shows the different privileges you grant to allow your users SmartText access.

Privilege	Code	Description
Use SmartText	SVC_USE_STD_TXT_PRIV	Allows a user to view, search and insert SmartText.

Privilege	Code	Description
Manage SmartText	SVC_MANAGE_STD_TXT_PRIV	Allows a user to create, update, and delete SmartText for their own use.
Publish SmartText	SVC_PUBLISH_STD_TXT_PRIV	Allows a user to set the scope of SmartText to GLOBAL which allows any user with the correct privilege to view and use that entry.
Administer SmartText	SVC_ADMIN_STD_TXT_PRIV	Allows the user to administer SmartText.

## Require Agents to Provide User Entered Values when Inserting SmartText

You can enable your application to require agents to enter values for user variable prompts when they select a SmartText. This ensures that all requested data is captured.

Here's the profile option you need to set to activate the functionality:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Productivity Tools
  - o Task: Manage Global Search Profile Options
2. Search for the profile option code `ORA_SVC_SMARTTEXT_MANDATORY_USER_VARIABLES`
3. Set the site level profile value to **Yes**.
4. Click **Save and Close**.

## How do I create and edit private SmartText entries?

Create your own SmartText entries. They're only visible to you, and they're saved in the Private Set tab.

**Note:** In previous releases, there was a **New SmartText (+)** icon in the Right Panel that enabled you to quickly create a new private SmartText. This icon no longer exists. To quickly create a new, private SmartText, just click the **Manage SmartText** (pencil) icon.

1. On the Create or Edit Service Request page, open the SmartText pane by clicking the **Restore Pane** arrow.
2. Click the **SmartText** tab, then click the **Manage SmartText** icon.
3. Click the **Create** icon on the **Private Set** tab.
4. On the **Manage SmartText** page, click the **Private** tab.
5. Make sure the default value of **Service** appears in the **Domain** drop-down list.

**Note:** If you want to create SmartText entries for Chat, make sure to choose Chat from the Domain drop-down list.

6. Make a selection from the **Business Unit** drop-down list (if available).

If the HZ\_ENABLE\_MULTIPLE\_BU\_CRM profile option is enabled (set to Y) you will have access to this drop-down list.

If you're an administrator, the drop-down list displays all BUs in your organization. If you're not you're shown only the BUs that you're assigned to along with the Null "No associated business unit" value which is visible to administrators and agents across your organization.

**Note:** A default business unit is assigned whether you have multiple BUs enabled or not. The default BU is set up when you configure the HZ\_DEFAULT\_BU\_CRM profile option.

7. Select a folder in which you want to create the public SmartText entry. You can either select an existing folder, or create a new folder to save your SmartText entry.

**Note:** **Root** is a reserved folder name and administrators can't create a folder with this name.

8. Click the **Create (+)** icon and select **New SmartText**.

9. On the **Manage SmartText** page, enter the following details:

- o Enter a name for the SmartText entry. There are some restrictions on special characters, so refer to *What are the SmartText naming conventions?*
- o Select **Use HTML** to use rich text formatting in your SmartText entry. You can insert tables and images here.
- o Enter the text you want to insert.
- o Insert a variable, if you want, by typing the @ symbol followed by the variable name. Click the **Tab** key to automatically complete the variable, or use the navigation arrows on your keyboard, then press the **Enter** key. The variable is inserted where the cursor stands in your text.
- o Click **Save as Personal**.

10. To edit the Private SmartText entry, do the following:

- o Select the SmartText entry you want to edit.
- o Select the **Language** of the SmartText entry from the drop-down list
- o You can also create in a new language by clicking the **Add** icon.
- o Edit the Private SmartText entry and click **Save as Personal** to publish the SmartText entry.

You can view and manage all your Private SmartText entries from the Private SmartText tab. You can add, duplicate, and delete your private set SmartText entries.

## How do I create and edit public SmartText entries?

Create your own Public SmartText entries. Public entries are available to all users.

To create a Public SmartText entry, do the following:

1. On the Create or Edit Service Request page, open the SmartText pane by clicking the **Restore Pane** arrow.
2. Click the **SmartText** tab, then click the **Manage SmartText** icon.
3. Click the **Create** icon on the Public tab.
4. On the **Manage SmartText** page, click the **Public** tab.

5. Make sure the default value of **Service** appears in the **Domain** drop down list.

**Note:** If you want to create SmartText entries for Chat, make sure to choose Chat from the Domain drop-down list.

6. Make a selection from the **Business Unit** drop down list (if available).

If the HZ\_ENABLE\_MULTIPLE\_BU\_CRM profile option is enabled (set to Y) you will have access to this drop down list.

If you're an administrator, the drop down list displays all BUs in your organization. If you're not you're shown only the BUs that you're assigned to along with the Null "No associated business unit" value which is visible to administrators and agents across your organization.

**Note:** A default business unit is assigned whether you have multiple BUs enabled or not. The default BU is set up when you configure the HZ\_DEFAULT\_BU\_CRM profile option

7. Select a folder in which you want to create the public SmartText entry. You can either select an existing folder, or create a new folder to save your SmartText entry.

**Note:** **Root** is a reserved folder name and administrators can't create a folder with this name.

8. Click the **Create (+)** icon and select **New SmartText**.

9. On the **New SmartText** page, do the following:

- o Enter the name for the SmartText entry. There are some restrictions on special characters, so refer to [What are the SmartText naming conventions?](#)
- o Select **Use HTML** to use rich text formatting in your SmartText entry. You can insert tables and images here.
- o Enter the text you want to insert.
- o Insert a variable, if you want, by typing the  $\&$  symbol followed by the variable name. Click the **Tab** key to automatically complete the variable, or use the navigation arrows on your keyboard, then press the **Enter** key. The variable is inserted where the cursor stands in your text.

10. Select **Publish** to save this entry in the **Public** tab for all users. If you don't select **Publish**, the SmartText entry is saved in your **Private** folder and is available only to you.

11. Verify the location where you're saving the SmartText.

12. Select the availability of the SmartText entry from the list of **Availability** options.

13. Click **Publish** to publish the SmartText entry.

To edit a Public SmartText entry, do the following:

1. Select the SmartText entry you want to edit.
2. Select the **Language** of the SmartText entry from the drop-down list
3. You can also create a new language by clicking the **Add** icon.
4. Edit the Private SmartText entry and click **Publish** to publish the SmartText entry.

## What are the SmartText naming conventions?

The following restrictions on special characters are applicable when you create a Public or Private SmartText:

- You can't include the following Trigger keys such as **#** and **@** in the name, as these may cause interaction problems.

- The following special characters aren't allowed:
  - Tilde
  - Number sign
  - Percent
  - Ampersand
  - Asterisk
  - Flower Bracket
  - Backslash
  - Colon
  - Angle Bracket
  - Slash
  - Plus sign
  - Question mark
  - Pipe
  - Quotation mark
  - Double Square Bracket
- You can't use the following special characters:
  - Exclamation mark
  - Pound
  - Dollar
  - Round Bracket
  - Euro
  - Caret
  - Underscore
  - Equal to
  - Semi-colon
  - Comma
  - Dot

## How do I use keyboard shortcuts

Administrators can edit keyboard shortcuts for users to manage service requests. You can define keyboard shortcuts in Setup and Maintenance for the following:

- *Button Access Keys* which are buttons and links on service request pages. For example, **Submit**, **Done**, **Apply**, **Response**, **Save and Close**, and so on. The following table lists button access key combinations for the latest versions of supported browsers.

Browser	Operating System	Key Combination	Action
Google Chrome	Linux	Alt+Shift+Key	Click
Google Chrome	Mac OS X	Control+Option+Key	Click
Google Chrome	Windows	Alt+Shift+Key	Click
Mozilla Firefox	Linux	Alt+Shift+Key	Click
Mozilla Firefox	Mac OS X	Control+Key	Click
Mozilla Firefox	Windows	Alt+Shift+Key	Click
Microsoft Internet Explorer 7	Windows	Alt+Key	Set focus
Microsoft Internet Explorer 8	Windows	Alt+Key	Clear or set focus
Microsoft Internet Explorer 11	Windows	Alt+Key	Clear or set focus
Apple Safari	Windows	Alt+Key	Click
Apple Safari	Mac OS X	Control+Option+Key	Click

The following table lists the keyboard shortcuts that are provided with the applications. Some of the shortcuts can't be modified.

Action	Keyboard shortcut	Editable
Create Service Request	E	Yes
Save and Continue	V	Yes
Send	D	Yes
Post	T	Yes

Action	Keyboard shortcut	Editable
Select from Service Request	Q	Yes
Insert Knowledge	W	Yes
Add Team Members	A	Yes
Back	B	No
Cancel	C	No
No	N	No
Save and Close	S	No
Yes	Y	No
Apply	L	No
Done	P	No
Finish	I	No
Next	X	No
OK	K	No

- *Action Commands* which are task actions that you can perform on the service request. For example, create response, add internal note, update the service request milestone, assign a service request to yourself, update, and so on. The keyboard shortcut combination, Alt+Control+Key, can be used for all actions on the user interface. This combination is applicable to both Windows and Mac OS X operating systems. The following table lists the keyboard shortcuts provided with the applications. All action command shortcuts can be modified.

Action	Keyboard shortcut
Add Action Plan	A
Show Keyboard Shortcuts	H

Action	Keyboard shortcut
Open Restore Pane	P
Update	B
Assign to Me	M
Launch Cobrowse	L
Copy	C
Delete	D
Forward	F
Get Link	G
Run Queue Assignment	Q
Update Service Request Milestones	S
Customer Entry	E
Internal Note	N
Response	R

Keyboard shortcuts have default configurations. You can't create shortcuts, but you can edit some existing keyboard shortcuts. To edit keyboard shortcuts, do the following:

1. In the Setup and Maintenance work area, click the **Tasks** icon.
2. Select **Search**.
3. Search for and select the **Manage Service Request Keyboard Shortcuts** task.
4. On the Manage Keyboard Shortcuts page, select the keyboard shortcut you want to change, and update the key in the **Shortcut Key** column.

**Note:** Two things to remember: Keys aren't case sensitive, and no two actions or buttons can have the same keyboard shortcut.

5. Click **Save**.

# 18 Set Up Service Business Units

## How are business units for set up for Service and Help Desk?

With business units (BUs), you can deploy more than one service center within a single instance of your service or help desk application. This topic gives an overview of the steps that you must perform to complete the business units setup.

You can use multiple BUs in the following ways:

- Segment SRs between BUs so that users can search and identify SRs from multiple BUs.
- Use product catalogs, categories, channels, and email templates specific to a BU.
- Assign SRs to queues by writing rules based on BU.
- Create service request BI reports specific to a BU.

Currently, the following objects aren't supported by multiple BUs in Service: accounts and contacts, users, resources, and lookups.

To set up business units in Service, you must perform the following tasks in the given order.

Step	Description
Setting Up Business Units for Service	Add the Manage Business Unit functional area to the Service offering by using the <b>Change Feature Opt In</b> link in Setup and Maintenance.
Manage Common Profile Options	Set the profile options to enable the multiple-BU functionality in the Manage Common CRM Business Unit Profile Options task.
Manage Internal Resource Organizations	Define internal resource organizations to be associated with the BU.
Manage Resource Organization Hierarchies	Add the internal resource organizations to the internal resource organization hierarchy.
Create Business Unit	Create a BU to be associated with the resource organization in the Manage Business Unit Task.
Associate Resource Organization to Business Unit	Associate the internal resource organization to the BU you created. Use the Resource Directory.
Create Employees	Add users to the organization in the Users, Roles and Delegations task, and make one of the resources a manager for the organization.
Reset Passwords for Users	Reset the password for the users.

Step	Description
Set the Scope in Service Setup Tasks and complete Service Setup tasks.	Set the scope for Service tasks and set up the remainder of the Service offering.
Add additional BU fields in the SR if users are associated with multiple BUs.	Change the layouts of the SR pages if required. Use Application Composer to include multiple BU fields in the SRs.  <b>Note:</b> Only required if a user is associated with multiple business units.
Configure Multiple Business Units with Digital Customer Service	If you implement multiple business units for Digital Customer Service, you must complete some additional configuration.

## How do I enable multiple Business Units Fusion Service?

To enable multiple business units (BUs) for Service, you must set the following profile options:

1. Multiple Business Units Enabled (HZ\_ENABLE\_MULTIPLE\_BU\_CRM): Set this profile option to **Yes**. The default value is **No**.
2. Customer Relationship Management Business Unit Default (HZ\_DEFAULT\_BU\_CRM): Set this to the default business unit for your service application.

**Note:** You must ensure that the value of the HZ\_DEFAULT\_BU\_CRM profile option doesn't remain blank, and the value is set to a BU. Otherwise, agents may see an error while creating SRs.

To set the profile options for Service BUs:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Company Profile
  - o Task: Manage Common CRM Business Unit Profile Options

The Manage Common CRM Business Unit Profile Options page shows the two profile options.

2. Click the **HZ\_ENABLE\_MULTIPLE\_BU\_CRM** profile option.
3. In the HZ\_ENABLE\_MULTIPLE\_BU\_CRM: Profile Values region, set the **Profile Value** for the Site **Profile Level** to **Yes**.
4. Click **Save and Close**.
5. Click the **HZ\_DEFAULT\_BU\_CRM** profile option.
6. In the HZ\_DEFAULT\_BU\_CRM: Profile Values region, specify the **Profile Value** for the Site **Profile Level**.
7. Click **Save and Close**.

## Manage Internal Resource Organizations for Service BUs

For every business unit (BU) that you set up, you can define internal resource organizations to be associated with the BU.

A resource organization represents the internal organization and structure for the business unit. Resource organizations are hierarchically structured, and the organization hierarchy helps to derive the reporting relationships.

To define the internal resource organization for a Service BU:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Users and Security
  - o Task: Manage Internal Resource Organizations
2. Click **Create** to add a new resource organization.
3. Select the **Option 2: Create New Organization** option to create a new organization.
4. Click **Next**.
5. On the Create Organization: Enter Basic Information page, enter a **Name** for the organization.
6. In the Organization Usages region, click **Add Row**.
7. From the **Usage** drop-down list, select **Service Organization**.
8. Click **Finish**.

### Related Topics

- [How do I update existing setup data?](#)
- [Set Up an Offering with Scope](#)

## Manage Resource Organization Hierarchies for Service BUs

After you define internal resource organizations to be associated with business units (BUs), you must add them to the internal resource organization hierarchy. A resource organization hierarchy is a hierarchically structured representation of the way resources are grouped within a resource organization.

To add internal resource organizations to the resource organization hierarchy:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Users and Security
  - o Task: Manage Resource Organization Hierarchies

2. In the Manage Resource Organization Hierarchies page, search for the resource organization that you created in the "Manage Internal Resource Organizations for Service BUs" procedure.
3. Click the link for the resource organization that you want to edit.
4. Select **Edit This Hierarchy Version** from the **Actions** menu.
5. Expand the organization list in the **Internal Resource Organization Hierarchy** region.
6. Select the organization that you created in the "Manage Internal Resource Organizations for Service BUs" procedure, to add it to the organization hierarchy.
7. Click **Add**.
8. In the **Add Tree Node** window, click **Search**.
9. In the **Search Node** window, search for the organization that you created in the **Manage Internal Resource Organizations** task.
10. Click **OK** to add the organization.  
  
To add more organizations, select the parent node to add a child node. Repeat the steps to search and add as many times as needed.
11. Click **Save and Close**.
12. Click **Yes** on the warning message, which states that the hierarchy version is to be updated and the corresponding reporting hierarchy regenerated.

#### Related Topics

- [How do I update existing setup data?](#)
- [Set Up an Offering with Scope](#)

## Create a Business Unit for Service

You can use a business unit (BU) to separate or share the following:

- Service setup data such as product catalog
- Transactional data such as service requests

To support the multiple-BU features, you must first create the required BUs.

To create a BU for the Service offering:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Company Profile
  - Task: Manage Business Unit
2. In the Manage Business Unit page, click **Create**.
3. In the Create Business Unit page, enter a name for the BU.
4. In the **Default Set** drop-down list, click **Search**.
5. In the **Reference Data Set Name** field, search for **Common**.
6. Select **COMMON** from the search results.
7. Click **OK**.
8. On the Create Business Unit page, click **Save and Close**.

To add another BU, select the **Manage Business Unit** task again and repeat the steps.

### Related Topics

- [How do I update existing setup data?](#)
- [Set Up an Offering with Scope](#)

## Associate Resource Organizations with Business Units

You can associate a resource organization with multiple business units (BUs). By associating resource organizations with BUs, you can control access to the transactional data available to service resources in business objects such as service requests.

**Note:** If you enable multiple BUs, ensure that each user is associated with a resource organization, and the resource organization is associated with one or more BUs. Otherwise, the default BU set on the HZ\_DEFAULT\_BU\_CRM profile option is associated with SRs.

To associate a resource organization with business units:

1. Sign in to the application as an administrator or a setup user.
2. In the Navigator, select **Resource Directory**.
3. On the Resource Directory page, click the Tasks panel tab.
4. In the Resource Organizations region, click **View Organizations**.
5. On the View Organizations page, search for the organization that you created.
6. In the Search Results region, click the link for the organization.
7. Select the Business Units tab.
8. Click **Add Row**.
9. Select the business unit from the drop-down list.

**Note:** The first BU with which you associate the resource organization becomes the primary BU. If you associate the organization with more BUs, you can change the primary BU as required.

10. To add more business units, click **Save**, and then click **Add Row**.
11. After you add the business units, click **Save and Close**.
12. Click **Done**.

## Create Employees for a Service BU

You can add resources to the resource organizations that you associate with business units (BUs). When you add a resource to an organization, the resource becomes a member of the organization and a part of the organization hierarchy.

You must first create a manager for the organization. To create application users, use the Users and Roles task:

1. Sign in to the application as an administrator or a setup user.
2. In the navigator, select **Users and Roles**.
3. On the Search Person page, click **Create**.
4. On the Create User page, enter the **Last Name** and **First Name**.

5. Enter the **Email**.
6. In the **User Details** region, enter a **User Name**.
7. In the **Employment Information** region, select **Employee** from the **Person Type** drop-down list.
8. Select a **Legal Employer** from the drop-down list.
9. Select the **Business Unit** of the employee from the drop-down list.

**Note:** This BU that you select is the BU of the employee, and not the BU of the resource organization. They both may be different. What BU you select for the employee information depends on how employees are organized.

10. In the **Resource Information** region, select the **Resource Role** from the drop-down list.
11. Search for and select an organization from the **Organization** drop-down list.

This organization is the one that you created earlier. The agent is associated with the BU through this organization.

12. Click **Autoproviseion Roles**. This gives the user any predefined job roles.
13. Click **Save and Close**.

Repeat the steps to create another user who is the employee of the manager. The steps are the same except that in the Resource Information region, you search for and add the Reporting Manager that you already created.

14. When you have added all the users, click **Autoproviseion Roles**.
15. Click **Save and Close**.

You can view everyone you created in the **Resource Directory** by using the Navigator.

## View Employees in the Resource Directory

To view the employees that you created in the Resource Directory:

1. In the Navigator, click **Resource Directory**.
2. Click the Tasks panel tab.
3. In the Resource Organizations region, click **View Organizations**.
4. On the View Organizations page, in the **Organization** field, type the name of the organization for which you want to view the employees.
5. From the displayed list of organizations matching your search, click the organization that you want.

The list of employees is displayed in the Members tab.

For more information about the Resource Directory, see the *Oracle Fusion Automation Using Customer Data Management for Sales and Service* guide.

### Related Topics

- [Overview of Setting Up Users and Security](#)
- [About Security Roles](#)
- [How do I enable desktop pages for Resource Directory?](#)

## Set the Scope in Service BU Setup

When you opt in to the business units (BUs) feature for Service, the Scope column in the Business Units tasks list contains links to set the scope of the task.

Let's learn how to set the scope for tasks when setting up BUs for Service.

To set the scope for tasks when you set up BUs for Service:

1. Sign in to the application as an administrator or a setup user.
2. Navigate to **Setup and Maintenance**.
3. From the **Setup** drop-down list, select the Service offering.
4. Select the **Business Units** functional area.
5. From the **Show** drop-down list, select **All Tasks**.
6. In the **Scope** column for any task in the task list, click the displayed link.

The **Select Scope** dialog box is displayed, and the task for which you are setting the scope is already selected.

**Note:** When you go to the task list for the first time, the scope may not be set and the **Scope** column displays the **Select** link. After you set the scope once, that BU appears as a link in the Scope column.

7. From the **Business Unit** drop-down list in the **Select Scope** dialog box, select **Select and Add**.
8. Click **Apply and Go to Task**.
9. On the Select and Add: Business Unit page, search for and select the BU that you want to set for the scope.
10. Click **Save and Close**.

The page opens for the task you're working with. On this page, you can choose to use the default **Site Level Value** or select the **Business Unit Profile Value**.

11. To select a Business Unit Profile Value:
  - a. Deselect the **Use Site Value** check box.
  - b. In the **Business Unit Profile Value** field, enter the profile value for the BU.
  - c. Click **Done**.

The task closes and now on the Setup page, the BU that you set for the Scope is populated for all tasks. Each task you open now is the setup for the BU in the **Scope** column.

To set up additional BUs, repeat the same steps.

**Note:**

- After you set up the first BU, the **Business Unit** drop-down list in the **Select Scope** window shows the BUs that you already set up.
- For all tasks, the scope displays the BU that you're currently working with. To change the BU again, click the BU in the **Scope** column for any of the tasks.

## Overview of Optional Setup Tasks for Service BU

Once the preliminary steps for setting up Service business units (BUs) are done, you can set up BU-specific tasks. All the BU-specific tasks are grouped under the Business Units functional area.

For multiple BUs in Service, the setup tasks are the same as in a normal Service setup. The only difference is that with most tasks for multiple BUs, you can do one of the following:

- Use the default site-value profile option.
- Set or select the business unit profile value.

However, the previous statement isn't true for some tasks for multiple BUs. The following multiple-BU tasks aren't related to profile options, so you must configure these tasks for each BU separately:

- Manage Service Categories for Business Units
- Manage HR Help Desk Service Categories for Business Units
- Manage Communication Channels for Business Units

**Note:** Categories and channels are restricted based on the BU set as the scope.

- When a new category or channel is created, it's automatically associated with the BU set in the scope. For more information about setting the scope for tasks when setting up BUs, see "Set the Scope in Service BU Setup".
- You can set the BU only for the top-level category. The BU on the child categories is automatically set based on the BU of the root category.

Here's a list of the other Service optional setup tasks and the help topics that provide more information.

Service Task	Related Topics
Manage Business Unit	Define Business Units
Manage Service Product Groups Usage for Business Unit Manage HR Help Desk Product Group Usage for Business Unit	Define a Catalog for the Service Offering Associate Different Catalogs to Different Business Units
Manage Service Categories for Business Unit Manage HR Help Desk Service Categories for Business Unit	Manage Service Request Categories Manage Service Request Categories and Product Usage Groups for HR Help Desk
Manage Communication Channels for Business Unit	Managing Communication Channels
Manage Service Email Templates for Business Unit	Define Email Templates Configure HR Help Desk Email

Service Task	Related Topics
Manage Human Resources Help Desk Email Templates for Business Unit	<p><b>Note:</b> You must perform additional steps to complete the Manage Service Email Templates for Business Unit task. In Functional Setup Manager, in the Business Units functional area of the Service offering, show <b>All Tasks</b>. For each task, click the <b>Scope</b> link and select the BU that you want. When you finish, click the <b>Select and Go to Task</b> button.</p>
Manage Service Milestone Configuration for Business Unit	Overview of Milestones for Multiple BUs
Manage Outbound Email Profile Values for Business Unit	Configure Profile Options for Inbound and Outbound Email

*Related Topics*

- [How do I define a catalog for Service?](#)
- [Manage Categories](#)
- [How do I define email templates?](#)
- [Set the Scope in Service BU Setup](#)

## Secure the Business Unit Field on a Service Request

Let's say you want to restrict users with certain job roles from changing the business unit (BU) while editing a service request (SR). You can secure the BU field on the SR object by using the Update Service Request Business Unit privilege.

If you remove this privilege from the listed job roles, users with these roles can't change the BU of the SR.

The following predefined job roles can change the BU when they edit an SR:

- Customer Service Representative
- Customer Service Manager
- Sales Manager
- Sales Representative
- Sales VP
- Customer Relationship Management Application Administrator
- Sales Administrator
- Channel Account Manager
- Channel Operations Manager
- Channel Sales Manager

## Remove the Update Service Request Business Unit Privilege

If you remove the Update Service Request Business Unit privilege from the job roles mentioned in the previous list, users with those roles can't change the BU of the SR when editing.

**Note:** You can remove the Update Service Request Business Unit privilege from a user's job role only if you had granted one of the predefined service job roles from the previous list to each of your users.

To remove the Update Service Request Business Unit privilege from a user's job role, perform the following steps in Security Console:

1. From the previous list of job roles, copy the predefined job role that's granted to the user. This predefined job role should have one of the following duty roles:
  - o Service Request Administrator
  - o Service Request Power User
  - o Service Request Troubleshooter
  - o Service Request Contributor
  - o Service Request Channel User
2. Copy the duty role that's already granted to the copied job role.
3. Edit the copied duty role and remove the Update Service Request Business Unit privilege from the role.
4. Edit the previously copied job role. Remove the service duty role that you copied to create a custom duty role.
5. Add the custom duty role to the copied job role.
6. Remove the previously granted predefined service job role from the user.
7. Grant the new custom job role to the user.

If you have custom roles for your users, complete the following steps to remove the Update Service Request Business Unit privilege from the user's job role:

1. Identify the custom role that has the Update Service Request Business Unit privilege.
2. Remove the Update Service Request Business Unit privilege from the role.

### Related Topics

- [Guidelines for Copying Roles](#)

## Export and Import the Functional Setup Data for Business Units

You may have created the functional setup data for all business units (BUs) in the Service offering in your test environment. After testing it, you may want to export the data to your production environment.

You can export or import the functional setup data by using the export and import feature in Functional Setup Manager. You can complete this process by using either an implementation project or the implementation method based on offering.

When you use the method based on offering, all the functional setup data for the Service offering is exported or imported, including the setup data for all the BUs. You can also export and import the functional setup data for a

specific BU by using an implementation project. This way, you have additional management flexibility in scenarios where each BU manages its own set of configurations.

For more information about the following features in Functional Setup Manager, see the Oracle Fusion Using Functional Setup Manager guide.

- Using implementation projects
- Export and import feature
- Implementation method based on offering

To export the functional setup data for BUs in the Service offering by using an implementation project:

1. Sign in as a setup user.
2. Navigate to the **Setup and Maintenance** work area and open the Tasks panel tab.
3. Select **Manage Implementation Projects**.
4. On the Manage Implementation Projects page, create a new implementation project to export the functional setup data for one of the following:
  - A specific business unit
  - All business units
5. Save and open the implementation project.
6. In the **Task Lists and Tasks** area, ensure that you add the **Define Business Units for Service** task list to the project.
7. Determine whether you want to export the setup data for a specific BU or all BUs.
  - If you want to export the setup data for all BUs, then go to step 12.
  - If you want to export the setup data for a specific BU, then complete all the remaining steps.
8. Expand the task list.
9. Navigate to the first task that has a **Select** link in the **Selected Scope** column. Click the **Select** link.
10. From the **Business Unit** list, select **Select and Add**.
11. Click **Apply and Go to Task**.
12. In the **Select and Add Business Unit** window, search and add the specific BU.  
The selected BU appears in the **Selected Scope** column for all the tasks in the task list.
13. Click **Done** for the implementation project.
14. Continue to create the configuration package as described in the "Exporting Setup Data Using Implementation Project" process in the Oracle Fusion Using Functional Setup Manager guide.

When you export the configuration package:

- If you select all BUs in step 3, the export data includes the functional setup data for all BUs in the Service offering.
- If you select a specific BU in step 3, the export data includes the functional setup data only for the selected BU.

**Note:** To import the functional setup data for BUs, follow the steps described in the *Using Functional Setup Manager* guide.

#### Related Topics

- [Setup Data Export and Import Using Implementation Project](#)
- [Export Setup Data Using Implementation Project](#)
- [Setup Data Export and Import Using an Offering or a Functional Area](#)

## Overview of BU-Based Service Request Visibility

When users view lists of service requests (SRs) or create user-defined searches, they can typically see all SRs. But you can restrict their access based on their business unit (BU) membership, if required. The predefined roles don't have SR visibility based on BU.

In the Security Console, you can assign BU-based visibility for SRs to specific roles. Consequently, users with these specific roles can see only the SRs assigned to the BUs where they're a resource member.

With this data security policy, your company can ensure that all predefined and user-defined searches are restricted only to BU membership for a set of users.

For more information about assigning the data security policies based on BU to your users, see [Set Up Service Request Visibility Based on BU](#).

### Related Topics

- [How You Set Up Visibility Based on BU](#)

## Migrate Business Objects Between Different Business Units

Sometimes, you may want to migrate some business objects between business units (BUs). But not all objects can be migrated.

You can migrate only the following business objects from one BU to another:

- Category
- Channel
- Milestone Configuration
- Service Request

**Note:** You can migrate only one business object at a time.

To migrate the listed business objects from one BU to another:

1. In the Navigator, click **Scheduled Processes**.
2. On the Overview page, click **Schedule New Process**.
3. In the **Schedule New Process** dialog box, select **Job** as the **Type** option.
4. Click the **Name** drop-down list and click **Search** at the end of the displayed list.
5. In the **Search and Select: Name** dialog box, type `Migrate` and click **Search**.
6. From the displayed list of jobs, select **Migrate Service Business Unit Data** and click **OK**.

The **Schedule New Process** dialog box displays the name of the selected job.

7. Click **OK**.

8. In the **Business Object** field in the **Process Details** dialog box, select the business object that you want to migrate.
9. From the **From Business Unit** drop-down list, select the BU from which you want to migrate the business object.  
**Note:** If some existing records aren't associated with any BU, you can leave the **From Business Unit** field blank.
10. From the **To Business Unit** drop-down list, select the BU to which you're migrating the business object.
11. Click **Submit**.

## Associate Different Catalogs with Different Business Units

When you have multiple BUs, you must create multiple usages, one for each BU. You can then associate a different catalog with each usage. This way, each BU is associated with a separate catalog.

If you have two BUs and you want to associate two different catalogs with the two BUs:

1. Create two different catalogs.

For more information about creating catalogs, see "Sales Catalog High-Level Setup Steps".

2. Create two usages for the two BUs.

- a. In the Setup and Maintenance work area, go to the following:

- Offering: Service
- Functional Area: Service Catalog
- Task: Manage Product Group Usage

- b. In the Manage Product Group Usage page, go to the Product Group Usage region.

- c. Click the **Actions** drop-down list.

- d. Click **Create**.

- e. In the **Create Product Group Usage** dialog box, in the **Usage** field, specify a name. For example, `BU_1_Usage`.

- f. In the **Usage Code** field, specify a code.

- g. Deselect the **Allow Duplicate Content** check box.

- h. Click **OK**.

- i. To create a second usage for the second BU, repeat steps c to h.

3. Associate a catalog with a usage.

For more information about associating a catalog with a usage, see "Define a Catalog for the Service Offering".

4. Associate a BU with a usage.

- a. In the Setup and Maintenance work area, go to the following:

- Offering: Service
- Functional Area: Business Units
- Task: Manage Service Product Group Usage for Business Unit

- b. For the first BU, deselect the **Use Site Value** check box.
- c. In the **Business Unit Profile Value** column, specify the usage code of the first usage that you created.

**Note:** You must specify the usage code, and not the usage name.

5. Click **Done**.
6. Repeat steps 3 to 5 for the second usage and the second BU.

*Related Topics*

- [Sales Catalog High-Level Setup Steps](#)
- [How do I define a catalog for Service?](#)

# 19 Set Up Survey Integration

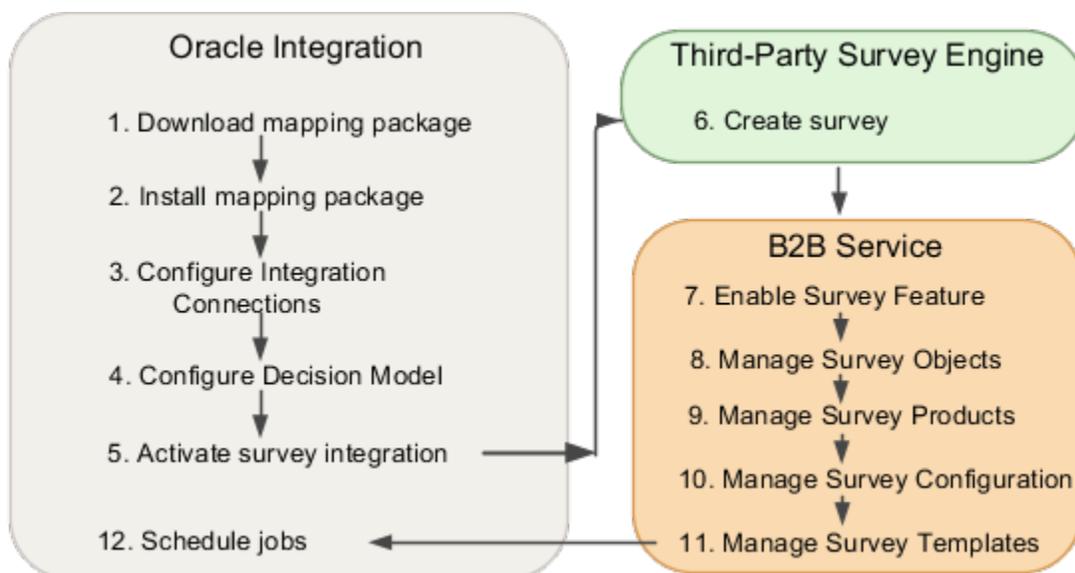
## Can I use surveys?

The survey integration framework lets you initiate survey requests based on any object.

You can send surveys from your preferred third-party supplier to your customers based on your chosen rules. You can define who receives a survey, what survey should be sent, and when to send a survey.

The survey integration framework connects with your survey supplier using Oracle Integration Enterprise Edition.

The following graphic shows the set up steps you'll need to perform to integrate the survey framework..



## Survey Requirements and Licensing

You must have subscriptions to the following cloud services to implement the Survey Integration Framework:

- Oracle Fusion Service 11.13.20.01 and higher
- Oracle Integration Enterprise Edition version 19.4.3.0.0
- Third-party survey product supplier such as a paid account with SurveyMonkey.

## Use the Survey Framework with Oracle Integration

Oracle Integration synchronizes Oracle Fusion Service with your third-party survey supplier. Do the following tasks to set up the secure integration between customer-specific instances:

- Create a user with the Setup Survey privilege to connect to Oracle Integration
- Download the Oracle Integration Flows
- Configure Integration Connections

## Create the Fusion Service Administrator User for Connecting to Oracle Integration

You must create a user that's used to connect from Oracle Integration to Fusion Service. Follow the steps in the Create Setup Users topic to create the user.

Grant the following roles to the new administrator user:

- Customer Service Manager (if using the Service Request object)
- Human Resource Help Desk Manager (if using HR Help Desk)
- SOA Operator
- Internal Help Desk Administration (if using Internal Help Desk)

## Download and Save the Oracle Integration Mapping Package

The first step in setting up the Oracle Integration-based integration is to install the Oracle Integration mapping package from Oracle Marketplace.

1. Sign in to Oracle Marketplace.
2. Select **Products** from the drop-down list.
3. Enter Survey in the **Search** field.
4. Click **Go**.
5. Select the integration package Oracle Fusion Service Survey Integration Framework Sample Integration.
6. Click **Get App**.
7. Review and accept the Terms and Restrictions.
8. Click **Next**.

The package has two files with the following extensions:

- `.dmn`

- `.par`

9. Select the `.par` file.
10. Save the file to a local computer.

**Note:** The files in the package are specific examples for using SurveyMonkey as a third-party survey supplier. If you use another supplier, you can use the files as a reference example to create your own.

#### Related Topics

- [Oracle Cloud Marketplace](#)

## Configure the Integration Connections

Complete the integration between Oracle Fusion Service and your third-party survey supplier in the following order. The steps in this procedure use SurveyMonkey as the example.

1. Import the package into Oracle Integration
2. Configure a connection to the Oracle Fusion Service Instance
3. Configure the Connection. In this example, the connection is configured for SurveyMonkey.

**Note:** If you're using SurveyMonkey, be sure to review the SurveyMonkey API information at the end of this chapter.

4. Configure the Survey Oracle Integration connection

## Import the Package

The Oracle Integration administrator imports the package.

1. Sign in to Oracle Integration.
2. On the home page, click **Integrations**.
3. Click **Packages**.
4. On the Packages page, click the **Import** button.
5. On the Import Package window, browse for the `.par` file that you downloaded from Oracle Marketplace.
6. Click the **Import** button.
7. The `.par` file is now listed on the Packages page.

To view what's in the package, click the package in the **Name** column.

8. Click **Close**.

**Note:** The files in the package are specific examples for using SurveyMonkey as a third-party survey supplier. If you use another supplier, you can use the files as a reference example to create your own.

## Configure the REST Connections

REST connections allow Oracle Integration to connect to the Survey Integration connection for your third-party survey supplier using API calls. Your supplier must have public APIs.

1. From the Oracle Integration home page, navigate to the Integrations page.

2. Click **Connections**.
3. Enter "Survey" in the **Search** field to narrow the search results.
4. On the Connections page, find and click the REST connection. In this example, we use SurveyMonkey. Find the REST connection **Survey Integration SurveyMonkey Connection**.
5. Click on Configure Connectivity and enter the value for Connection URL that's appropriate for your site. For example, `https://api.surveymonkey.com`.
6. Click **OK**.

**7.** On the Detail page, enter the required values for **Security** .

**Note:** You need your Client ID and Client Secret values to continue. These values are provided by your third-party supplier. In this example, SurveyMonkey. In the Settings tab in SurveyMonkey, change the `OAuth Redirect URL` to:

- o `https://<Your OIC host>:443/icsapis/agent/oauth/callback`

This is the OIC URL you got from the browser. Here's how you get it.

- a. Log in to Oracle Integration.
- b. Copy and paste the OIC host from your browser. For example, it looks like `https://oicapps-oicdevqa.integration.ocp.oraclecloud.com`.

For the supplier SurveyMonkey, you must have the following scopes selected in SurveyMonkey under the settings tab:

- o View Responses
- o View Response details
- o View Users
- o View Surveys
- o View Contacts
- o View Collectors
- o Create/modify Contacts
- o Create/modify Collectors

**Tip:** You can find your SurveyMonkey Client ID and Client Secret values by viewing the details of your SurveyMonkey Private App at <https://developer.surveymonkey.com/apps>.

Continuing from the previous step, enter the required values for Security. The following table shows the values.

Required Security Property	Value
Security Policy	Select <code>OAuth Custom Three Legged Flow</code> from the drop-down list
Authorization Request	Enter the Authorization Request that's appropriate for your site. For example, <code>https://api.surveymonkey.com/oauth/authorize?response_type=code&amp;redirect_uri=\${redirect_uri}&amp;client_id=xxx</code>

Required Security Property	Value
	Where <b>xxx</b> is the Client ID you received from SurveyMonkey.
Access Token Request	<p>Enter the Access Token Request that's appropriate for your site. For example, <code>-X POST -H "Content-Type: application/x-www-form-urlencoded" -d "code=\${auth_code}&amp;redirect_uri=\${redirect_uri}&amp;grant_type=authorization_code&amp;client_id=xxx&amp;client_secret=yyy" https://api.surveymonkey.com/oauth/token</code></p> <p>Where <b>xxx</b> is Client ID and <b>yyy</b> is Client Secret</p>

- Click **Provide Consent**. For more information, see the FAQs in this chapter.

Before continuing, make sure you receive a success message (access allowed).

- When you're prompted, enter your Oracle Integration User Name and Password.

**Note:** If you encounter the error "The authorization request failed: Invalid redirect uri," copy the `redirect_uri` parameter value from the browser URL and update the same OAuth Redirect URL as you did in the previous note.

- Enter your SurveyMonkey User Name and Password.
- Click **Save** on the Provide Consent window.
- Click **Test**.

You see a message saying the test was successful.

- Click **Save**.

You see a window listing the integrations that are using the connection.

- Click **Save** on window.
- Click **Close** on the Survey Integration Oracle Integration Connection page.

**CAUTION:** For the integration to access the API for specific functionality of the survey, you must have active scope requirements in your SurveyMonkey Private App.

## Configure the Oracle Fusion Service Instance Connection

This connection is used by Oracle Integration to get survey details from Fusion Service

- On the Oracle Integration home page, click **Connections**.
- On the Connections page, find Survey Integration Engagement Cloud Connection.
- Go to the Survey Integration Engagement Cloud Connection Detail page.

- In the Connection Properties window, enter the values as shown in the following table.

The values in the tables in the following steps are located in the email you receive when Oracle Integration is provisioned.

Property Name	Property Value
OSC Service Catalog	Enter the service catalog URL for your Oracle Fusion Service instance. For example: <code>https://&lt;CRM domain WSDL URL host&gt;/fndAppCoreServices/ServiceCatalogService?wsdl</code>
OSC Event Catalog URL	Optionally, enter the event catalog URL for your Oracle Fusion Service instance. For example: <code>https://&lt;CRM domain host&gt;/soa-infra</code>
Interface Catalog URL	Enter the interface catalog URL for your Oracle Fusion Service instance. For example:  <code>https://&lt;CRM domain host&gt;/helpPortalApi/otherResources/latest/interfaceCatalogs</code>

- In the Security region, enter the values as shown in the following table.

Property Name	Property Value
User Name	<FUSION SERVICE USER NAME>
Password	Enter the password.
Confirm Password	Reenter the password.

- Click the **Test** button.

It may take some time for the user <FUSION SERVICE USER NAME> to synchronize with the directory.

A message appears saying the test was successful.

- Click **Save**.

A window appears listing the integrations that are using the connection.

- Click **Save**.

- Click **Close** on the Survey Integration Oracle Integration Connection page.

## Configure the Survey Integration Oracle Integration Connection

This connection is used by Fusion Service to connect to Oracle Integration.

- On the Oracle Integration home page, click **Connections**.
- On the Connections page, find Survey OIC Connection.
- Click **Survey OIC Connection**.

4. Enter the values as shown in the following table.

Connection Property	Property Value
Connection Type	REST API Base URL
Connection URL	Enter the Oracle Integration host name URL shown in your browser's address bar. For example: https://oicapps-oicdevqa.integration.ocp.oraclecloud.com

5. In the Security region, enter your Oracle Integration User Name and Password values.
6. Verify your password is correct and click **Test**.  
A message appears saying the test was successful.
7. Click **Save**.  
A window appears listing the integrations that are using the connection.
8. Click **Save** on the window.
9. Click **Close** on the Survey Integration Oracle Integration Connection page.

#### Related Topics

- [Creating Decisions](#)

## Configure the Decision Model

Configure the decision model to determine when a survey is sent.

There are two files in the integration package you downloaded in an earlier step. The `.par` file, which you already used to import the integration package, and the other is a file with the extension `.dmn`.

You use the `.dmn` file to configure the PCS decision model. The file is an example of a decision model that uses the service request object. If you don't have the same conditions, use the file as a reference and make changes that suit your needs.

If you want to have multiple decision models for the same object, download the file once and import it multiple times to keep the same type definition. For example, for predefined SRs you can import the `.dmn` file multiple times with a different name. Otherwise, you must manually copy over all the fields of the SR to each new decision model.

## Import and Create the Decision Model

Here's how to import the decision model.

1. On the Oracle Integration home page, go to **Decision Models**.
2. Click **Create**.
3. Click **Import a Decision Model**.
4. Browse for the `.dmn` file that you downloaded with the integration package.
5. Enter the **Name**, **Space**, and **Description**.
6. Make sure the **Open Immediately** check box is checked.

Once you import the decision model, click the model to begin configuring the rules for the survey.

7. Activate the decision model.

For more information about creating and testing decision models, refer to the Creating Decisions chapter of the Using Oracle Process Cloud Service guide.

#### Related Topics

- [Creating Decisions](#)

## Activate the Survey Integration Flow

After importing the integration package and successfully connecting Oracle Fusion Service, you can now activate the integration flow.

### Activate the Integration Flow

Follow these steps to activate the integration flow.

1. Sign in to Oracle Integration.
2. On the home page, click **Integrations**.
3. Click **Packages**.
4. Search for the **EC\_SAMPLE\_SURVEY\_INTEGRATION** package.
5. Click the package name.

A window appears that lists the integrations in the package.

6. You must activate each integration individually, so take note of the names of each integration in the package.
7. Click **Integrations** in the menu.
8. Find each integration in the package, and click the **Activate** icon in the status column.

For example:

- o Click the **Activate** icon in the Status column for your integrations package.
- o Click **Activate** on the confirmation dialog window.

**CAUTION:** Oracle doesn't recommended enabling tracing when activating the integration flow in production. If for some reason you enable tracing, you should not select the include payload option.

- o Make sure the flow was activated successfully.
9. Verify that the integration synchronization is working.

## Note Your Integration Endpoints

After activating and testing your integration flows, you must note your activation endpoints. You need your endpoints later when you configure your third-party supplier's survey in Fusion Service.

Endpoints connect your surveys from your survey supplier to Fusion Service so when you're creating a survey template, all your surveys are visible in Fusion Service.

For example, to find the endpoints using SurveyMonkey as your supplier::

1. Navigate to Integrations in Oracle Integration.
2. Click the **Link** icon in the **Status** column of the **Get SurveyMonkey Surveys** integration.
3. Click the **Metadata URL** link.

A new tab that contains your Endpoint URL opens. Note the Endpoint URL for later when you set up survey configuration in Fusion Service.

## Create Your Survey

Once you have completed the previous steps, continue setting up Survey in Fusion Service, by creating a survey using your third-party survey supplier. Your survey is created, maintained, and sent by that supplier. To create your survey, refer to your supplier's documentation.

Follow the steps in your supplier's documentation for Summary, Design, Preview and Score, and Collect Responses. Optionally, follow the steps for Analyze and Present Results.

**Note:** If you're using SurveyMonkey as your supplier, Create a Collector and Create a Message are required steps. When you create a Collector, remember that Fusion Service only supports an email channel for collecting survey responses.

## Service Request Attributes Used in Templates

If you're using SRs as your survey object, you can use any SR attribute as a part of your survey's email template.

For SR's add attributes to your template by adding the attribute inside double brackets.

Here's a sample email template using the two most common SR attributes from Fusion Service.

```
Hi {{PrimaryContactPartyName}},
```

```
We're conducting a survey and your input is appreciated. Click the button below to start the survey. Your SR:  
{{SrNumber}}
```

You can get the SR attribute values from the API Name in Application Composer or from REST API.

Most predefined SR fields are already mapped. Here's how you can see the previously mapped fields:

For this case, we will continue using SurveyMonkey as the example.

1. Log in to Oracle Integration.
2. Search for **SurveyMonkey Survey Request** Job.
3. Select the job.
4. Find the **Map to TestQualifySR** in the flow.

**Note:** The icon next to Map to TestQualifySR is actually the link to the Decision Model in Process Cloud.

5. Click **Map to TestQualifySR** and click **Edit**.

The mapping appears.

Attributes that have a line mapping from the \$CurrentSR source are pre-mapped. You can add those attributes to your template by framing them with double brackets as shown in the sample.

To use attributes in your template that aren't pre-mapped, or a non-predefined field that you have created, follow the steps in the Create Mappings topic.

#### Related Topics

- [Survey Monkey Developer Documentation](#)
- [Create Mappings](#)

## Supported Survey Question Types

When creating your survey questions in the third-party survey supplier tool, you can base them on certain question types.

Here are the types of surveys that are supported with the survey framework:

- Text
- Check box (single select)
- Multiple select check box
- Slider
- Drop down
- Multiple line text
- Option

## Enable Surveys in Fusion Service

Follow these steps to enable and set up the Survey feature in Fusion Service.

**Note:** You must be a Fusion Service Administrator with the Setup Survey privilege and all prior tasks in this chapter must be completed before you can proceed.

To opt in to the Survey feature:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Change Feature Opt in link
2. Select **Enable** for Surveys.
3. Click **Done**.

The Survey feature now appears in the Functional Area of the Setup Service page.

## Manage Survey Products

Here's how you add your third-party survey supplier to the integration.

**Note:** The predefined product is SurveyMonkey. If that's your third-party survey supplier, there's no need to follow these steps.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Feature: Surveys
  - o Task: Manage Survey Products
2. In the Lookup Codes section, click the **Add** icon.
3. In the Lookup Code field, enter a lookup code for your supplier. For example, CUST\_SUPPLIER\_NAME.
4. Enter the name of your supplier in the **Meaning** field.
5. Enter a description in the **Description** field.
6. Click **Save and Close**.

## Manage Survey Objects

In this chapter, we use service requests as the object used for the Survey Framework feature. You can use different objects for surveys.

If you're also using the service request object, there's no need to follow these steps. Otherwise, here's how you add survey objects.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Feature: Surveys
  - o Task: Manage Survey Objects
2. In the Lookup Codes section, click the **Add** icon.
3. In the Lookup Code field, enter a lookup code for the object. The predefined object is service requests. If you're using a different object, enter something like CUST\_SVC\_ACCOUNT.
4. Enter the name of the object in the **Meaning** field. For example, Service Request.
5. Enter a description in the **Description** field. For example, The lookup value for the Service Request.

This object is used later when you create a survey template using the Manage Survey Templates task.

6. Click **Save and Close**.

## Manage Survey Configurations

You can now configure Survey in Fusion Service. This configuration is used to map the third-party survey supplier (in this example SurveyMonkey), the Oracle Integration URL, User Name, and Password to Fusion Service.

Follow these steps to enable and set up Survey:

SurveyMonkey is used in this example.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Feature: Surveys
  - o Task: Manage Survey Configurations
2. In the Survey Products region, click **Add**.
3. Select your supplier from the **Survey Product** drop down list. This is the supplier you created in the Manage Survey Products task. In this example, we are using SurveyMonkey.
4. Enter a name for the configuration.

The configuration name is used later when you create the survey template.

5. Enter the values as shown in the following table:

Field	Value
Name	Enter a name for the configuration.
Description	Enter a description for the configuration.
Integration User	Enter your Oracle Integration User Name
Integration Password	Enter your Oracle Integration Password
Integration Endpoint URL	Paste the endpoint URL that you noted earlier.  For example: <code>https://oicapps-oicdevqa.integration.ocp.oraclecloud.com:443/ic/api/integration/v1/flows/rest/GET_SURVEYMONKEY_SURVEYS/1.0/surveys? [Page-value] &amp;PerPage=[PerPage-value] &amp;Name=[Name-value]</code>

**Note:** When you paste the URL, remove everything starting from (and including) the question mark in the Endpoint URL.

6. Click **Save and Close**.

## Manage Survey Templates Task

Survey templates are used to map your survey with decision rules you use to send the survey.

To create and manage survey templates:

In this example, we use SurveyMonkey.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Feature: Surveys
  - o Task: Manage Survey Templates (to create and manage general SR survey templates)

Or

  - o Task: Manage Survey Templates for HR Help Desk (to create and manage survey templates for HR Help Desk surveys)
2. To create a template, click **Add**.
3. Enter a **Name** and **Description** for the template.
4. Select the **SurveyMonkey Configuration Name** from the drop-down list.

This name comes from the configuration you created in the Manage Survey Configurations task.

5. Enter a **Start Date** for the survey.
6. Optionally, enter an **End Date**.
7. Select **Service Request** from the **Object Type** drop-down list.

If you're using an object different from a service request, here's where you choose it. For example, in the Manage Survey Objects task you completed earlier, we used the example of entering CUST\_SVC\_ACCOUNT as the object type.

8. Select the **External Survey Name** from the drop-down list.

The list is of all the surveys you have in SurveyMonkey.

9. Enter the **External Survey URL**.

This is the direct link to your third-party survey.

10. Select a **Decision Model Space**.

The decision model space is the one you created earlier.

11. Select a **Decision Model Name**.

The decision model name is the one you created earlier.

12. Click **Save and Close**.

# Schedule Jobs for Sending Surveys and Collecting Survey Responses

In this task, you schedule and manage jobs. A job identifies all the service requests that are applied to decision rules that you configure.

For example, send a survey to the primary contact of all service requests that have been closed since the last job run. In this example, SurveyMonkey is used as the sample job.

1. From the Integrations page in Oracle Integration, search for the survey job **SurveyMonkey Optimized Survey Request Job**.
2. Select **Schedule** from the hamburger menu under **Status**.
3. On the Schedule page, click the **Edit** icon.

You can edit the type, frequency, effective dates, and so on.

**Note:** To schedule a survey, your survey must be active in Fusion Service.

4. Click **Start Schedule**.
5. Click **Start Schedule** on the Scheduled Run window.

**Note:** Scheduled jobs can use a lot of resources. Consider scheduling your jobs for off-hours, or only once or twice a day. If you're using SurveyMonkey, activate the schedule for both of the following jobs using the steps in this procedure.

- **SurveyMonkey Optimized Survey Request Job** locates the records that match the rules and sends the requests to the third-party supplier.
- **SurveyMonkey Survey Response Sync Job** goes out to the third-party supplier, gets the survey responses, and brings them into Fusion Service so BI reports can be run to view the data.

## Related Topics

- [Scheduling Integration Runs](#)

# Verify the Survey Integration is Working

You can now test the integration flows.

## Verify the Integration is Working

Follow these steps to verify that the integration is working. In this example, we verify the integration for the third-party supplier SurveyMonkey.

1. If you haven't already done so, create a test survey in SurveyMonkey with a corresponding message.  
For more information, see the topic [Create your SurveyMonkey Survey](#).

2. Create a test rule. Refer to the topic in this chapter about configuring the Process Cloud decision model.
3. Go to Manage Survey Templates task and create a test survey.
4. Make sure that:
  - o The SurveyMonkey survey is visible under External Survey.
  - o The Decision Model Space and Decision Model Name display the test rule.
5. You can test the survey by creating a test Primary Contact and test SR that satisfies the rule you created.
6. Wait for the job to run.
7. You should receive the test survey in the test primary contact's inbox.

## How to Include an Administrator-Defined Attribute in the Decision Model

If you have an administrator-defined attribute in your service request and you want to include it in your decision model follow the steps in this topic. This example uses service requests as the object.

For example, you may have created an administrator-defined attribute to capture the level of service based on the Account on the service request such as, Gold, Silver, and Bronze. Let's say you want to include that field to help identify only the Gold Accounts that have a closed SR and send them a different survey than Silver and Bronze. In order to do this, you must to expose the administrator-defined attribute in your decision model.

### Add the Administrator-Defined Attribute to Your Decision Model

Once you add your administrator-defined attribute to your service request object using Application Composer, here's how you can add the attribute to your decision model.

1. Navigate to Oracle Integration > Processes > Decision Models.
2. Select the Decision Model you want to edit.
3. Expand Service Request in the **Type Definition** region.
4. Edit the **Type Definition** to include the new fields by clicking the menu and selecting **Edit**.
5. In the **Edit Type Definition** dialog box, click the **Add** icon in the Define Type Attributes section.
6. In the **Add Component** dialog box, enter the Name of the administrator-defined attribute.
7. Use the drop-down list to select the **Mode**.
8. Click Close.

You can now include the attribute in the decision model.

9. Click **Activate**.
10. On the **Create Snapshot and activate** dialog window, click **Activate**.

**Note:** There may be characters that were appended to the decision model Name. Make sure the Name is an exact match to the name of your decision model in the Manage Survey Configurations task in Functional Setup Manager.

Don't forget to test the decision model to make sure it works.

## Change the Integration to Include the Administrator-Defined Field

Now that you have added the attribute to the decision model, you must change the integration so that the new field can be used in the decision model.

1. Navigate to Oracle Integration > Integrations.
2. Find the integration you want to edit.  
 If the job is scheduled, you must pause or stop the job before you continue.
3. Now, deactivate the job by clicking the **Deactivate** icon.
4. Click the job name to edit.

First, you update the initial query of SRs to pull the new attribute from Fusion Service.

5. On the Scheduled Orchestration page, navigate to `Invoke GetSRPage using Survey Integration Engagement Cloud Connection connection of type Oracle Engagement Cloud`.

`Invoke GetSRPage...` is where the fields of the SR are being picked up.

6. Click the `Invoke GetSRPage...` Three buttons appear and then click the **Regenerate** link.

This regenerates the SR fields to include the administrator-defined field.

7. Click **Regenerate** on the Regenerate Artifacts dialog box.

Next, you update the mapping to include the administrator-defined field in the decision model.

**Tip:** In between actions, it's a good idea to click **Save**.

8. On the Scheduled Orchestration page, navigate to the `Invoke TestQualifySR using Survey Integration OIC Connection connection of type REST`.

`Invoke TestQualifySR...` is the actual call to the decision model.

9. Click the icon and select **Edit**.
10. On the Configure REST Endpoint dialog window, select the **Request** tab.
11. In the Select the request payload format section, click the `<<<inline>>>` link.
12. Scroll to the end.
13. Use valid JSON script. Add a comma and press enter on your keyboard.
14. Add the name of the administrator-defined field in quotes.
15. Add a colon after the quotes.
16. After the colon, enter an example value.
  - o If the value is true or false, type either true or false.
  - o If the value is a number, you can type any number.
  - o If the value is text or date time, you can type any value in quotes. It doesn't matter what you type inside the quotes.

The following table shows examples of the last few lines of the sample JSON payload.

JSON Syntax	Sample (last few lines of the sample JSON payload)
Original:	<pre>"CaseNumber" : "ABCDEFGH", "CaseId" : "ABCDEFGHIJK", "PrimaryContactPersonId" : "ABCDEFGHIJKLMNQRSTUUVW" }</pre>

JSON Syntax	Sample (last few lines of the sample JSON payload)
	} }
Adding a <code>true/false</code> field:	<pre>"CaseNumber" : "ABCDEFGH", "CaseId" : "ABCDEFGHIJK", "PrimaryContactPersonId" : "ABCDEFGHIJKLMNQRSTUUVW", "MyBooleanField": true } }</pre>
Adding a text field:	<pre>"CaseNumber" : "ABCDEFGH", "CaseId" : "ABCDEFGHIJK", "PrimaryContactPersonId" : "ABCDEFGHIJKLMNQRSTUUVW", "MyTextField": "blahblahblah" } }</pre>
Adding a <code>date/time</code> field:	<pre>"CaseNumber" : "ABCDEFGH", "CaseId" : "ABCDEFGHIJK", "PrimaryContactPersonId" : "ABCDEFGHIJKLMNQRSTUUVW", "MyDateField": "2020-06-01" } }</pre>
Adding a number field:	<pre>"CaseNumber" : "ABCDEFGH", "CaseId" : "ABCDEFGHIJK", "PrimaryContactPersonId" : "ABCDEFGHIJKLMNQRSTUUVW", "MyNumberField": 1234 } }</pre>

17. If you're adding multiple fields, repeat the last steps. Add a comma after the last field, press enter, and so on.
18. Click **OK**.
19. Click the **Summary** tab.
20. Click **Done**.
21. Click **Update** on the Update Configuration dialog box.

**Tip:** Remember to save between actions.

Now, you can edit the mapping.

22. On the Scheduled Orchestration page, navigate to **Map from Schedule to TestQualifySR**.  
The icon for **Map from Schedule to TestQualifySR** is the mapping from the SR to the decision model.
23. Click the icon and select **Edit**.  
The Map page opens.
24. In the Target panel, expand the items until you see Service Request.  
The Target panel represents the decision model.
25. Scroll through the Target list to find the new administrator-defined field.
26. In the Sources panel, expand `§currentSR`.
27. Scroll down the `§currentSR` list until you find the same administrator-defined field.
28. Click the administrator-defined field in the Sources panel and drag it to the same field in the Target panel.

This action creates a line linking the field.

29. After mapping the new field from Source to Target, expand the field (on the Target side of the page) to expose a nil row.
30. Right click on the word `nil` and select **Create Target Node**.  
An **Expression for: nil** dialog window opens.
31. Click the **Switch to Developer View icon** on the **Expression for: nil** dialog window.
32. In the **Expression for: nil** dialog window, enter `true()`.
33. To save your changes, click the **Check mark icon** on the **Expression for: nil** dialog window.  
An icon is now displayed in the Mapping Canvas panel that shows a mapping to the word nil.
34. Click **Validate**.
35. You see a message saying that mapping is valid and ready to use.
36. Click **Close**.
37. Click **Save** on the Scheduled Orchestration page.
38. Click **Close**.  
The final step is to reactivate the integration.
39. Click the **Activate** icon in the Status column of the integration row.
40. On the Activate Integration dialog window, make sure Enable Tracing is deselected and click **Activate and Schedule**.

#### Related Topics

- [Creating Decisions](#)
- [Working with Decision Models](#)
- [Adding and Ordering Decisions](#)

## Export and Import the Functional Setup Data for Surveys

If you create the functional setup for the Survey feature in your test environment, you can export the data and import it into your production environment.

You can do this using either the implementation method based on an offering, or from an implementation project. For more information about how to export and import your setup data, see the links at the end of this topic.

Whichever method you use, when the import is complete, you must reconnect the integration by reentering your Endpoint Password and URL (if the URL is different from your test environment).

Here's what to do after your setup data import is complete:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Feature: Surveys
  - Task: Manage Survey Configurations
2. Select the row for the survey configuration.
3. In the Survey Product API Properties region, enter the **Survey Integration User**.

4. Reenter the **Survey Integration Password**.
5. If you have multiple integrations, verify the URL in the **Survey Endpoint URL** field is correct. For more information about configuration, see the Manage Survey Configuration topic earlier in this chapter.
6. Verify the survey integration is working. For more information about verifying the integration, see the Verify the Survey Integration is Working topic earlier in this chapter.

**Note:** Be sure to stop your jobs in the test environment before you start the production integration connection. After you verify the integration is working in the production environment, start your jobs again.

#### Related Topics

- [Setup Data Export and Import Using Implementation Project](#)
- [Export Setup Data Using Implementation Project](#)
- [Setup Data Export and Import Using an Offering or a Functional Area](#)

## How to Change an Active Decision Model

To change the rules for an active decision model where a job is already running, there are a series of additional steps you must take.

The steps in this example change a current, active decision model where a job is already running. In this example, the decision is set to send surveys when the SR status is Resolved. We want to change it so that surveys are sent when the SR status is Closed.

To do this, you must deactivate and delete the active decision snapshot and then create and activate it again. Here's how:

### Pause the Schedule

Before you start, pause the scheduled job for the active rule.

1. Sign in to OIC (Integration Cloud).
2. Search for the survey integration and click the **Pause Schedule** icon on the active job.

### Change the Rule

Now, let's change the rule.

1. On the Integration page, go to **Decision Models** and select "EC\_SAMPLE\_SURVEY\_DECISION\_MODEL".
2. Select the Decision **SR Status is Resolved** and change the if clause to `ServiceRequest.StatusTypeCd="ORA_SVC_CLOSED"`.
3. Click **Save**.
4. Click **Snapshots** from the Menu bar.
5. In the Manage Snapshots window, click the hamburger menu and select **Deactivate**.
6. Click **Yes** on the **Deactivate** window.
7. Click the hamburger menu and select **Delete**.
8. Click **Yes** on the **Delete Snapshot** window.

9. Click the **Activate** on the menu bar.
10. Add the rule again with the same name as the one you deleted.
  - Note:** The application shows the previous name, but is appended with "-s1". The next two steps help you make sure the new snapshot name and version number match the old name and version number.
11. Make sure the snapshot **Name** is exactly the same as the old name.
12. Enter the same **Version** number as the original snapshot.
13. Check the **Override** check box to override the old version.
14. Click **Activate**.
15. Verify the snapshot is created by clicking the hamburger icon of the **Snapshots** menu and click **View**.  
You should see the new snapshot.

## Resume the Schedule

Don't forget to resume the job. Follow the steps at the start of this procedure, but click **Resume Schedule** instead of **Pause Schedule**.

# Prerequisites for Survey Integration Using SurveyMonkey

Throughout this chapter, we used SurveyMonkey as the example for the third-party survey supplier. If you're using SurveyMonkey, you must follow these steps prior to using the Survey Integration Framework with SurveyMonkey.

## Create a paid SurveyMonkey account and create a Private App

You can create a free account and then upgrade to a paid plan, or upgrade your existing free account.

1. Go to <https://developer.surveymonkey.com/apps/> and create an account.
2. Log in to SurveyMonkey.
3. Go to My Apps and create a new Private App.
4. Review the credentials and select the scope items used in your scenario. You can change this at any time.

## Check your current API call limits

SurveyMonkey imposes a daily limit on the number of API calls. Therefore, there is a limit to the number of surveys you can send in a day. SurveyMonkey's documentation explains API call maximums. You must license your SurveyMonkey account appropriately for all connections over their defined limits, so make sure you have purchased enough API calls.

**Note:** SurveyMonkey monitors your API calls and if you exceed your limit, you're notified through email to upgrade your plan.

To check your API call limits:

1. Log in to SurveyMonkey.
2. Find your App and click the App name.
3. Click the Overview tab to see your API limits.

4. To adjust your API call limits, send an email to: [api-support@surveymonkey.com](mailto:api-support@surveymonkey.com)

## FAQs About Survey Integration

### Frequently Asked Questions (FAQs) for Survey Integration

This section contains some frequently asked questions (FAQs) when setting up and maintaining survey integration. Scroll or search to find answers to common questions.

#### What happens if there are failures with Oracle Integration jobs?

You can investigate job failures in Oracle Integration. Sign in your Oracle Integration account and on the home page click Monitoring. On the integration tab, go to Runs. You can see your survey job run log.

#### What happens if there is a failure testing one of the Oracle Integration connections?

Check to make sure all the credentials you entered are correct. For example, the endpoint connection and your User ID and Password.

#### What happens if there is a failure with the Oracle Integration activation?

If there is a failure with the Oracle Integration activation, a link for the log that shows the reason for the failure is provided.

#### Isn't there a built-in survey tool in Fusion Service?

No. You must use a third-party survey supplier.

## Can I use the survey integration feature without a paid SurveyMonkey account?

No. You must have a paid account with SurveyMonkey with the appropriate number of allotted API calls in your plan.

## Where can I find a sample survey package for Fusion Service?

You can find the sample survey framework integration package on [Oracle Marketplace](#).

## Which survey template is sent if an SR qualifies for more than one decision model?

The survey is sent for the most recently updated survey template in Fusion Service.

## Can I have more than one decision model?

Yes. You can have as many decision models as you want.

## Can I have more than one Friendly Enough expression in a decision model?

You can have as many Friendly Enough expressions as you want.

## Can a decision model be based on any object?

Yes. For example, you can base the decision model on the object Active Account. You must make sure the object is passed to the decision model.

## How can I deactivate a decision model?

In the Oracle Integration decision model, click on Snapshots (next to Activate) and then find the snapshot you want to deactivate. Click the hamburger menu on the snapshot and click Deactivate.

## How can I map a nonstandard attribute to my email template?

To use attributes in your email template that aren't predefined, follow the steps to [Create Mappings](#) in the Oracle Integration documentation.

## Which SR attributes are mapped ready to use?

Most predefined SR fields are already mapped. You can find pre-mapped fields in Oracle Integration.

## Can I have multiple survey templates when I set up surveys in Fusion Service?

Yes. Each template corresponds to one survey within your third-party survey supplier.

## What happens if I don't specify an end date on a survey template?

Your survey is sent as long as there are SRs that match the decision model rule.

## What happens if a job doesn't run?

If a job doesn't run, or if you think there was an error, go to Track Runs in Oracle Integration. To access Track Runs, click Runs from the Integrations menu in Oracle Integration.

## What happens if a job fails?

Both the request job and response job have Schedule Parameters that determine the time frame to consider for sending surveys and recording responses.

- Request Job: `startSurveyFromDate`: If the value of `startSurveyFromDate` is X, then the job will only test SRs that were resolved after X, where X is a date and time.
- Response Job: `LastStartTime`: If `LastResponseTime` is Y, then it only pulls responses to the survey submitted after Y.

If a job fails or errors occur when sending surveys or collecting responses, you can submit an ad hoc run outside of the normal schedule to cover the time frame in which the error occurred.

- Request Job: If you find that some surveys weren't sent since 1:00pm on March 14th, you can provide this date and time to an ad hoc run (2020-03-14T13:00:00). Then you can restart the normal schedule.
- Response Job: If you find that some error occurred and new survey responses weren't collected since 1:00pm on March 14th, you can provide this date and time to an ad hoc run (2020-03-14T13:00:00). Then you can restart the normal schedule.

**Note:** Date and time must be in ISO 8601 format. For example, (2020-03-14T13:00:00).

## How can I extend the survey object?

You can extend two survey objects using Application Composer:

- Survey Response
- Survey Request

**Note:** There are no out of the box UI pages for these objects. To view the extended objects, you must build your own VB pages or use REST calls to access the extended objects.

## Are there pre-built BI reports for Surveys?

Yes. Survey integration framework comes with pre-built, role-based, best-practice reports. The reports are located in the BI Catalog area at: Shared/Service/Embedded Content/Customer Service Manage/Survey Analysis. For a list of pre-built reports visit: Review prebuilt analytics for Fusion Service.

In addition, you can perform ad hoc analyses of your survey data using purpose-built subject areas. For more information, see the Service - CRM Survey Requests Real Time topic in the Subject for Transactional Business Intelligence guide.

*Related Topics*

- [CRM Survey Requests Summary](#)
- [Service-Reports.xls](#)

# 20 Set Up Cobrowse

## Overview of Oracle Cobrowse

### Oracle Cobrowse

Oracle Cobrowse Cloud Service is a collaboration tool which helps agents collaborate with customers. Agents work on customer's screen during real-time voice or chat interactions and guide them to resolutions.

Agents gain a better understanding of customer issues, resolve issues more quickly, and give the customer a greater level of understanding. Agents can also use Cobrowse as a sales conversion and customer support tool.

Oracle Cobrowse Cloud Service is available as both a standalone solution or as an integrated feature of Oracle Fusion Service.

**Note:** To use Oracle Cobrowse, you must deploy the Cobrowse launcher script on your web site. For more information, refer to the Related Topics list.

#### *Related Topics*

## Differences Between Cobrowsing and Screen Sharing

While the terms can often be used interchangeably, in a business setting there is an important difference between screen sharing technology and cobrowsing technology. Let's take a look these two use cases for the differences.

- Screen Sharing is basically a web collaboration session. One person allows one or more people to view his or her computer screen. In business, the screen is typically shared by the sales or customer service agent who invites a customer to view an online demo, or a presentation. The sharer or host holds the license to use the screen sharing tool and is the one who's responsible for starting the sharing session.
- Cobrowsing is a screen sharing session which can be initiated by a customer or an agent. The sales or customer service agent can see the customer's screen and provide guidance and insights on what the customer is doing or seeing. In this case the sharer or host is the customer, but the license to use the Cobrowse tool is held by the company or agent. The customer doesn't have to sign up for anything, download anything, or do anything other than click a button to start the session.

## Cobrowse Terminology

Here's a general overview of some of the Cobrowse terminology.

- **Instant Mode.** An HTML-based cobrowsing technology that runs in the web browser. Cobrowse is typically launched in this mode.

- **Advanced mode.** Allows for cobrowsing outside of the browser or viewing of more advanced, rich web technologies within the browser.
- **True View.** Gives agents the ability to toggle in and out of a view that matches the browser size and configuration of the customer.
- **Agent Console.** Where an agent starts and runs a Cobrowse session.
- **Administrative Console.** Where Cobrowse administrators manage Cobrowse, including configuration panels and reporting.
- **In-app Cobrowse.** Functionality that can be built into a native mobile application.

## Cobrowse Modes

Most visual collaboration tools feature either an HTML-based mode, or a screen sharing mode. Oracle Cobrowse combines both technologies. Instant Cobrowse mode uses HTML. Advanced Cobrowse mode uses screen sharing.

- Instant Cobrowse mode gives you the fastest connection between agent and customer, with launch times typically under 10 seconds. Agents cobrowse web content with customers on pages where the company has placed Cobrowse launcher script.
- Agents can escalate to Advanced Cobrowse mode from within an active Instant Cobrowse mode session. Agents and customers can then cobrowse outside the browser, or view more advanced web technologies within the browser. Sessions can also start directly in Advanced Cobrowse mode if Instant Cobrowse mode isn't supported. Advanced Cobrowse mode also allows agents to cobrowse content outside the company's domain, including third party websites and desktop applications. This mode utilizes browser plug-ins and may require the customer to accept a certificate or download an executable.

The following table gives you a better idea of each Cobrowse mode.

The following table lists cobrowse scenarios the functionality provided by each cobrowse mode.

Scenarios	Instant Cobrowse Mode	Advanced Cobrowse Mode
Connect in less than 10 seconds	Yes	No
Customer is using a mobile browser	Yes	No
Cobrowse the company's web pages	Yes	Yes
Rich media present on page (such as Flash others)	No	Yes
Cobrowse third party sites (partner websites, resource websites, and so on)	No	Yes
Cobrowse content outside of the browser (settings, windows, applications, and so on)	No	Yes
Configure field masking to block sensitive information	Yes	Yes

Scenarios	Instant Cobrowse Mode	Advanced Cobrowse Mode
Configure page masking or URL masking to control visibility of web content	Yes	Yes
Configure application masking to control visibility of desktop content	No	Yes

*Related Topics*

## Document Cobrowse Use Cases

Before you start the configuration and deployment process, it's recommended that you gather specific use cases from all stakeholders. This work will help you determine your specific UI and security decisions, and streamline your deployment.

**Note:** To use Oracle Cobrowse, you must deploy the Cobrowse launcher script on your web site. For information on how to do this, refer to the Related Topics area for links to documentation.

So, consider these questions:

- Who will be cobrowsing with whom?
  - Which customer segment?
  - Which agents in which contact centers?
- What will those using Cobrowse need to look at together on the screen?
  - Websites?
  - Desktop applications?
  - Mobile applications?
- What must agents be able to do on the customer's screen?
  - View and point?
  - Click and type?
- Must all agents have the same privileges?
- Are there any web pages where agents should specifically not have the ability to click and type (even though they have these privileges elsewhere)?

*Related Topics*

## Define Business Challenges

The next thing to consider when you're deploying Cobrowse is to clearly define the business challenges that you want to solve. Consider the following metrics:

- **Sales Conversion Rate:** With Cobrowse agents can co-shop with customers and recommend products or services. Agents can also ross-sell, up-sell, potentially increasing order size.
- **First Call Resolution Rate:** Because agents can more directly assist with complex or confusing web forms and other processes which might be too difficult to describe, cobrowsing increases first call resolution rates.
- **Customer Satisfaction:** Cobrowsing increases customer satisfaction by giving great exactitude to the information shared between the agent and customer.
- **Online Self-Service:** Agents guide a customer through new or complex websites. Simple surveys presented at the close of a Cobrowse session give you insight into whether or not a customer is comfortable or confident about using self-service tools going forward.
- **Call Handling Time:** Cobrowsing shortens call handling times by simplifying highly complex issues. Though it's not appropriate or necessary for every call, cobrowsing can be very effective for complex call types. Measuring the handling time when cobrowsing is used against interactions which rely entirely on voice or chat guidance can give you a clear picture of how cobrowse technology is impacting your contact center costs.

# 21 Configure Notifications

## Set Notification Triggers and Preferences

### How do I enable notifications?

A notification is an alert for users such as service agents and managers, to notify them about an event on the service request, and enable them to take the necessary actions.

As a prerequisite, to allow users to view notifications, you must enable a profile option.

Enabling notifications is a global setup and feature opt-in step. Here's how you enable the notifications feature for service requests:

1. Sign in to the application as a setup or administrator user.
2. Navigate to **Setup and Maintenance**.
3. Select the **Service** offering.
4. In the **Functional Areas** section, select **Change Feature Opt In**.
5. Select the **Enable** check box for in the **Productivity Tools** row.

When the **Notifications** feature is enabled, bell notifications are automatically enabled for service requests.

6. Click the **Edit** icon in the **Features** column of the **Productivity Tools** row.
7. Enable your required notification delivery channels:
  - o To enable push notifications for mobile devices, select the **Enable** check box for **Mobile Notifications**.
  - o To enable browser notifications, select the **Enable** check box for **Browser Notifications**.
  - o To enable email notifications, select the **Enable** check box for **Use Email as a Notification Delivery Channel**.
8. Click **Done** on the Edit Features Productivity Tools page.
9. Click **Done**.

### How do I set up groovy notification triggers?

As an administrator, here's how you configure notifications after you have enabled the notifications feature:

1. Define notification triggers as Groovy scripts in **Application Composer**, containing the conditions that must be met for each notification. Notifications are triggered when the defined conditions are met. For example, a trigger can be defined to send a notification when a high severity SR has been assigned to an agent.

For more information about defining notification triggers, see the "Define Notification Triggers" section.

2. Configure the notification preferences using the Notification Preferences page. For example, to specify the notification message using SmartText, and the notification recipient.

For more information about notification preferences, see the "Set Notification Preferences" section.

**Note:**

- You can temporarily disable all notifications using the profile option SVC\_DISABLE\_BO\_NOTIFICATIONS. Oracle recommends to use this option when you're doing a bulk import of data, so that you don't get multiple notifications.
- You can temporarily enable or disable specific notifications from the Notification Preferences page.

## Understand the Two sendNotification Groovy Functions

You use this first example function when there is no Notification Preferences support for overriding messages, recipients or channels.

```
adf.util.sendNotification(java.lang.Object, java.util.HashMap\
```

Sends a notification to all enabled delivery methods. The delivery methods, message text, and recipients can be configured on the notification preferences page. If notification preferences for the trigger exist, then the values in the preferences take precedence. The first argument is the adf object. The second argument is the requestParameters HashMap, which can specify one or more of the following parameters: 'Channels', 'MessageText', 'RecipientPartyId', 'RecipientPartyIdList', 'RecipientAttributeNames'.

**Example Invocation:**

```
def map = new HashMap();  
map.put("Channels", ["ORA_SVC_BELL", "ORA_SVC_MOBILE"]);  
map.put("MessageText", "Map defaulted message"); map.put("RecipientPartyId",  
AssigneeResourceId); adf.util.sendNotification(adf, map); Example Invocation  
2: def map = new HashMap(); map.put("Channels", ["ORA_SVC_BELL"]);  
map.put("RecipientPartyIdList", [AssigneeResourceId, ReportedByPartyId]);  
adf.util.sendNotification(adf, map); Example Invocation 3: def map = new  
HashMap(); map.put("Channels", ["ORA_SVC_BELL"]);  
map.put("RecipientAttributeNames", ["AssigneeResourceId",  
"ReportedByPartyId"]); adf.util.sendNotification(adf, map);
```

The second example function is used when there's Notification Preferences support to override messages, recipients, and channels.

```
adf.util.sendNotification(java.lang.Object, java.lang.String, java.lang.String, java.lang.String, java.lang.Long)
```

Sends a push notification to all enabled channels, such as mobile or web browser bell. The channels, default messages, recipients, and other preferences can be configured on the notification rules page. A notification preference is associated with the objectCode and eventName pair. If notification preferences for the trigger exist, then the values of messageText and partyId in the preferences take precedence. The first argument is the adf object. The second argument is the eventName, which should typically match the trigger name. The third argument is the objectCode, which should typically match the business object name, for example, ServiceRequestVO. The fourth argument is the messageText. The fifth argument is the partyId.

**Example Invocation:**

```
adf.util.sendNotification(adf, 'SRCritical', 'ServiceRequestVO', 'Service Request is now critical!', partyId).
```

**Note:** If you use this function and do not set up a Notification Preference, it will by default send the notification to both the bell and push channels.

## Custom Objects or Fields

1. In Application Composer , navigate to **Service Request > Fields > Create a Custom Field**.
2. Navigate to **Pages** and include the new field in **Creation Page Layout**, and **Details Page Layout**.
3. Write your trigger.  
Check the API Name of your new field. If you made a field called Priority, the API name will be something like **Priority\_c**.

## How do I define notification triggers?

Here's how you define a Groovy script for a notification trigger:

1. Sign in to the application as a setup or administrator user.
2. Click **Navigator > Configuration > Sandboxes**.
3. Create a sandbox or select an existing one, and click **Enter Sandbox** to activate the sandbox. Your sandbox is activated, and you can see its name on the sandbox bar over the global header.
4. In the **Navigator**, click **Application Composer**. The Application Composer page is displayed.
5. Select **Objects > Standard Objects > Service Request > Server Scripts** . The **Server Scripts Service Request** section is displayed.
6. Click the **Triggers** tab.
7. From the **Action** menu, click **Add**. The **Create Object Trigger** section is displayed.
8. Create a Groovy trigger:
  - a. Specify the **Name**, **Error Message**, and **Trigger Definition** details.
    - Oracle recommends you to use the trigger type **After Changes Posted to Database**. This trigger type enables you to stop potential issues if the Groovy script is accidentally written to run indefinitely. If the trigger type is set to **Before Update to Database**, with a bad script, there may be some issues.
    - If you're creating a new object, and you want to trigger a notification when the object is created, Oracle recommends you to use the trigger type **Before Insert to Database**. However, some of the **Before** trigger types don't have all attributes exposed yet, resulting in some fields being blank. To debug your triggers if you're not getting the expected results, follow the steps in the section "Debug Groovy Triggers".
    - The `isAttributeChanged()` function works only for the **Before** trigger types. The workaround for the **After** trigger types involves retrieving the old value before the database is updated, then retrieving the new value after the update, and then comparing the two values to see whether the attribute is changed. However, this workaround works only for high-level attributes such as `criticalFlag` and `status`. This workaround may not work for the `viewRow` attribute, for example, when you're retrieving the team from an SR.

When you create a Groovy script, you need the API names of the fields you're trying to access. To create your triggers based on parent/child fields, do the following:

- i. In the **Trigger Definition** section, click **Show/Hide Expression Palette**.
- ii. Click the **Fields** tab.
- iii. Select an **Object**.
- iv. Click the **Maximize Edit Script** arrow. The fields for the selected object are displayed.

- v. Select the API you want, and click **Insert**.
    - vi. To close the expression palette, click the **Restore Edit Script** arrow, and then click **Show/Hide Expression Palette**.
  - b. Click **Save and Close**.
9. Navigate to the Notification Preferences page to configure your preferences for the notifications.

For more information about configuring notification preferences, see the "Set Notification Preferences" topic.

**Note:** You can reuse a Groovy notification trigger if no other notification uses it.

## How do I set notification preferences?

The Notification Preferences page enables administrators to configure the notification rules. Users who have the ORA\_SVC\_SR\_ADMINISTRATOR or ORA\_SVC\_SR\_POWER\_USER duty roles can access this page.

Notification preferences are used to select multiple recipients like team members, queue members, and so on. When notification preferences is used, it will override the recipients that are set in the Groovy code.

Here's how you configure the notification rules:

**Note:** Ensure that your triggers are published.

1. Sign in to the application as an administrator.
2. In the **Navigator**, click **Tools > Notification Preferences**.

The Notification Preferences page is displayed.

3. From the **Object** drop-down list, select **Service Request** or **Work Order**.

**Note:** Other supported objects are also displayed in the **Object** drop-down list.

- a. Click **Add**. A blank row is added in the table.
- b. To enable the notification trigger, select **Yes** from **Enabled** drop-down list.
- c. To prevent users from personalizing this notification through the User Notification Preferences page, select **No** from the **OverrideFlag** drop-down list.

**Note:** To clean up the user notification preferences data, in case the resource leaves your company or is no longer active, run the **Purge Obsolete User Preferences** scheduled process. This scheduled process lets your organization ensure that your data on user notification preferences isn't stale.

- d. Select a Groovy notification trigger from the **Triggering Event** drop-down list.
- e. Enter the **Notification Name** and **Description**.
- f. In the **Recipients** column, click **Edit**.

The **Configuration for Trigger Name** dialog box is displayed.

- g. Select the notification delivery options for the respective recipients.

For an enabled triggering event, notifications are sent to the specified recipients only if you select at least one delivery option. If any delivery method is selected for a specific recipient, that recipient will also receive bell notifications. Additionally, if you do not select the **Bell Notifications** option, then no notifications will be sent to the specified recipients.

The following tables describe the recipients and delivery options for the service request object:

Recipients for Service Request Object	Delivery Options for Service Request Object
<ul style="list-style-type: none"> <li>- <b>Assigned To:</b> Resource to whom the service request is assigned.</li> <li>- <b>Manager of Assigned To:</b> Manager of the resource to whom the service request is assigned.</li> </ul> <p>If a service level agreement is about to expire, and immediate attention is required, the manager of the resource to whom the service request is assigned, can be informed.</p> <ul style="list-style-type: none"> <li>- <b>Resource Team:</b> Additional resources that have been added to a service request on the Team subtab.</li> </ul> <p>If you have a team of resources collaborating on a service request, and a trigger such as the service request escalating to Critical status happens, the entire team can be informed.</p> <ul style="list-style-type: none"> <li>- <b>Queue Owner:</b> Owner of the queue.</li> </ul> <p>If your organization uses manual assignment, the queue owner can be notified when a new service request is associated with a queue owned by the queue owner. For information about the setup steps required to send a notification to a queue owner, see the "Trigger a Notification to the Queue Owner" section.</p> <ul style="list-style-type: none"> <li>- <b>All Queue Members:</b> Send defined notifications to all members of a specified queue, so that they can effectively monitor the queue for open items.</li> </ul> <p>Queue notifications reduce the need for agents to manually check each queue they are associated with, to see whether there's new work.</p> <p>To enable this recipient option, set the profile option ORA_ENABLE_QUEUE_MEMBER_NOTIFICATIONS to <b>Yes</b>. This</p>	<ul style="list-style-type: none"> <li>- <b>Bell Notifications:</b> Sends a bell notification to the web application.</li> <li>- <b>Mobile Notifications:</b> Sends a mobile push notification to the Oracle Fusion Cloud Mobile application.</li> <li>- <b>Browser Notifications:</b> Sends a real-time notification to the desktop of the selected users that are signed in the Omnichannel toolbar, when a predefined trigger is executed.</li> <li>- <b>Email Notifications:</b> Sends an email notification to the selected internal recipients' primary work email ID saved in the application.</li> </ul> <p><b>Note:</b> The from email address is configured through the SVC_OUTBOUND_EMAIL_FROM profile option. If that isn't specified, the default from email address <code>noreply@oracle.com</code> is used.</p>

Recipients for Service Request Object	Delivery Options for Service Request Object
<p>profile option is disabled by default.</p> <p>You should only enable this option if your queues have a small number of participants. If your organization's queues have many members, enabling notifications to all of them might affect application performance.</p>	

The following tables describe the recipients and delivery options for the Work Order object:

Recipients for Work Order Object	Delivery Options for Work Order Object
<ul style="list-style-type: none"> <li>- <b>Assigned To:</b> Resource to whom the work order is assigned.</li> <li>- <b>Created By:</b> The user who created the Work Order</li> <li>- <b>Field Service Resource ID:</b> The resource ID being used to complete the work order</li> <li>- <b>Last Updated By:</b> The user who last updated the work order.</li> <li>- <b>Manager of Assigned To ID:</b> Manager of the resource to whom the work order is assigned.</li> </ul> <p>If a service level agreement is about to expire, and immediate attention is required, the manager of the resource to whom the work order is assigned, can be informed.</p> <ul style="list-style-type: none"> <li>- <b>Requested By:</b> The user who reported this work order.</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Bell Notifications:</b> Sends a bell notification to the web application.</li> <li>- <b>Browser Notifications:</b> Sends a real-time notification to the desktop of the selected users that are signed in the Omnichannel toolbar, when a predefined trigger is executed.</li> <li>- <b>Email Notifications:</b> Sends an email notification to the selected internal recipients' primary work email ID saved in the application.</li> </ul> <p><b>Note:</b>                  The from email address is configured through the SVC_OUTBOUND_EMAIL_FROM profile option. If that isn't specified, the default from email address <code>noreply@oracle.com</code> is used.</p>

- h. To let users follow a specific service request and receive all notifications for that service request, select the **Enable Followers** check box.

When enabled, users with the correct permissions will see the **Follow** option in the **Actions** menu of the Service Request Details page.

The notification followers receive notifications for all supported channels, when any notification event is triggered for the service requests they follow.

To enable this feature for the site, set the `ORA_ENABLE_FOLLOW_NOTIFICATIONS` profile option to **Yes**.

To follow a service request, users must have the `SVC_GET_SR_FOLLOW_NOTIFICATIONS` permission. This privilege is added to the following ready-to-use duty roles:

- Service Request Administrator
- Service Request Channel User
- Service Request Contributor
- Service Request Power User
- Service Request Troubleshooter

**Note:** To evaluate whether a resource is still valid and enabled to follow specific service requests, run the **Purge Obsolete Notification Followers** scheduled process. This scheduled process removes inactive and end-dated users from following the service request, so that the application doesn't get overloaded with stale data. This scheduled process lets your organization ensure that your data on notification followers isn't stale.

- i. Click the **New SmartText** link and enter the **Notification Text** for the selected object.

For more information about using SmartText, see the "Using SmartText" topic.

4. (Optional) To delete a notification preference, select the row and click **Delete**. The associated notification text is also deleted.

**Note:** If you delete a notification that uses a Groovy notification trigger, you can create a new notification using the same trigger, if no other notification uses it.

5. (Optional) To modify an existing notification text, click the **Update SmartText** icon for the selected row.
6. Click **Save**.

## Define Notifications for Custom Objects

The Notification Preferences page lets you define notifications not only for standard objects, but for custom objects too. First, use Application Composer to create triggers on the relevant custom objects for which you want to initiate user notifications. Then, use the Notification Preferences page to specify the recipients and delivery channels for these custom objects.

Here's how you set up notifications for custom objects:

1. Sign in to the application as a setup or administrator user.
2. Click **Navigators > Configuration > Sandboxes**.
3. Create a sandbox or select an existing one, and click **Enter Sandbox** to activate the sandbox. Your sandbox is activated, and you can see its name on the sandbox bar over the global header.
4. Publish the selected sandbox.

5. In the **Navigator**, click **Application Composer**. The Application Composer page is displayed.
6. Select **Objects > Custom Objects**.
7. Select an existing custom object or create a new custom object with default fields and pages.  
  
For more information on working with custom objects and tags, see *Add Objects and Fields* in the Configuring Applications Using Application Composer guide.
8. On the Object Overview page, click **Manage Tags**.  
  
The **Object Tags** window is displayed.
9. Select the **Notifications** check box and click **Ok**.
10. Navigate to **Server Scripts** for the selected custom object.  
  
The Server Scripts page for the selected custom object is displayed.
11. Click the **Triggers** tab, and create a new trigger.
12. Click **Navigator > Tools > Notification Preferences**.  
  
The Notification Preferences page is displayed, where you can configure your notification preferences for the selected custom object.
  - a. From the **Object** drop-down list, select the custom object.
  - b. Select the custom object triggering event, and specify the notification recipients and delivery options.
  - c. Click **Save**.

## Trigger a Notification to the Queue Owner

Here's how you trigger a notification to the queue owner:

1. Add the **Owner** field to the Queue pages as described in the "Add the Queue Owner to the Page Layouts for Queues" topic.
2. Define the notification preference for the **Service Request** object:
  - a. Click **Standard Objects > Service Request > Server Scripts**.  
  
The Server Scripts Service Request page is displayed.
  - b. Create an object trigger for service request escalated. For a sample Groovy script, see the "Sample Groovy Scripts for Notifications" section.
  - c. In the **Navigator**, click **Tools > Notification Preferences**.  
  
The Notification Preferences page is displayed.
  - d. Create a notification preference using the service request escalated trigger. For the **Recipients** option, select only **Queue Owner**.
3. Create a queue for associating the queue owner with a resource:
  - a. On the Home page, click **Service > Queues**.
  - b. On the Queues page, create a queue and specify a **Name** for the queue.
  - c. From the **Owner** drop-down list, select a resource member.
  - d. Click **Save and Close**.
4. On the Create or Edit Service Request page, from the **Queue** drop-down list, select the queue name you specified in the previous step.
5. Trigger a notification to the specified queue owner by enabling or disabling the **Critical** status.

### Related Topics

- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)
- [Add the Queue Owner to the Page Layouts for Queues](#)

## Debug Groovy Triggers

Within your Groovy scripts, all your `println` statements go to the runtime messages. Here's how you view the runtime log and debug your Groovy script:

1. Within a sandbox, navigate to **Application Composer**.
2. Select **Common Setup > Run Time Messages**. The **Run Time Messages** section is displayed.
3. Select the **Enable Application Script Logging** check box.
4. Trigger your notifications.  
If the Groovy script has appropriate `println` statements, you receive runtime messages when you navigate back to the **Run Time Messages** section in Application Composer.

### Related Topics

- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Sample Groovy Scripts for Notifications

### How do I use Groovy script to notify an agent that a service request has been assigned?

Here's a sample groovy script that triggers a notification to be sent to the recipient specified in the Notification Preferences page when a service request (SR) is assigned.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Server Scripts.

```
/* DISCLAIMER: This trigger is provided only as a reference.
 * TRIGGER TYPE: Before Update in Database
 * OBJECT: Service Request
 * Use Case: Send a notification when an existing SR is reassigned.
 * Note: You can override the Notification Text and Recipients using the Notification Preferences page.
 */

if (isAttributeChanged('AssigneeResourceId')) {
  try {
    def recipientPartyId = AssigneeResourceId
    def messageText = 'An SR notification (default message).'
```

```

if (recipientPartyId) {
    //Call to send notification
    adf.util.sendNotification(adf, messageText, recipientPartyId)

    //Log a confirmation that the notification has been sent. Logs can be viewed in 'Runtime Messages'.
    //println("Notification sent to " + recipientPartyId + " because the SR was assigned to them.")
} else {
    println("No Assignee associated with this SR")
}
} catch (e) {
    //Log the failure in groovy logging. Logs can be viewed in 'Runtime Messages'.
    println("Failure to trigger notification from Groovy Script " + e.getMessage());
}
// Throwing validation exception will show the message on the UI. This is not recommended for published
sandboxes.
// The following code is one of many to illustrate identifying an error in trigger from the UI.
// Replace <triggerName> with the trigger name you specified when creating this trigger.
// throw new oracle.jbo.ValidationException('Failure to trigger <triggerName> Notification from Groovy
Script: ' + e.getMessage())
}
}

```

## Service Request Escalated

Here's a sample code to trigger a notification to be sent to the recipient specified in the Notification Preferences page when the SR is escalated.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Server Scripts.

```

/* DISCLAIMER: This trigger is provided only as a reference.
* TRIGGER TYPE: Before Update in Database
* OBJECT: Service Request
* Use Case: Send a notification when an SR is escalated.
* Note: You can override the Notification Text and Recipients using the Notification Preferences page.
*/

if (isAttributeChanged('CriticalFlag') && CriticalFlag=='Y') {
    try {
        def recipientPartyId = AssigneeResourceId
        def messageText = 'An SR notification (default message).'

```

```
}
```

## How can I be notified when a customer replies to a message?

Here's a sample code to trigger a notification to be sent to the recipient specified in the Notification Preferences page when a customer replies to a message.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Message > Server Scripts.

```
/* DISCLAIMER: This trigger is provided only as a reference.
 * TRIGGER TYPE: Before Insert to Database
 * OBJECT: Message (child of Service Request)
 * Use Case: Send a notification to the assignee when a customer entry is created.
 * Note: You can override the Notification Text and Recipients using the Notification Preferences page.
 */
if (MessageTypeCd == 'ORA_SVC_CUSTOMER_ENTRY') {
  try {

    // Note: The notation ServiceRequest?.SrNumber is used because ServiceRequest is the parent
    // object of Messages. To access the other possible field names, expand the trigger box, click on fx,
    // click on Fields, and select the drop-down list from Message. Click on Service Request to see the
    // available fields. You must click Insert to correctly insert the appropriate field into your script.

    def messageText = "A customer entry was received for " + ServiceRequest?.SrNumber
    def recipientPartyId = ServiceRequest?.AssigneeResourceId
    if (recipientPartyId) {
      // Call to send notification
      adf.util.sendNotification(adf, messageText, recipientPartyId)
      //Log a confirmation that the notification has been sent. Logs can be viewed in 'Runtime Messages'.
      //println("Notification sent to " + recipientPartyId + " because a customer entry was received.")
    } else {
      println("No Assignee associated with this SR")
    }
  } catch (e) {

    // Log the failure in groovy logging. Logs can be viewed in 'Runtime Messages'.
    println("Failure to trigger notification from Groovy Script " + e.getMessage());

    // Throwing validation exception will show the message on the UI. This is not recommended for published
    // sandboxes.
    // The following code is one of many to illustrate identifying an error in trigger from UI.
    // Replace <triggerName> with the trigger name you specified when creating this trigger.
    // throw new oracle.jbo.ValidationException('Failure to trigger <triggerName> Notification from Groovy
    Script: ' + e.getMessage())
  }
}
```

## Can I view an expired milestone sample script?

This is sample code to trigger a notification to be sent to the recipient specified in the Notification Preferences page when a milestone expires.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Milestone > Server Scripts.

**Note:** This example uses `WarnedFlag`. However, you can also use `ComplianceFlag` for similar results.

```

/* DISCLAIMER: This trigger is provided only as a reference.
* TRIGGER TYPE: Before Update in Database
* OBJECT: Milestone (child of Service Request)
* Use Case: Send a notification to the assignee when an SR milestone is expiring.
* Note: You can override the Notification Text and Recipients using the Notification Preferences page.
*/

if (isAttributeChanged('WarnedFlag') && WarnedFlag=='Y') {
  try {
    def recipientPartyId = SrAssigneePartyId
    def messageText = 'An SR milestone notification (default message).'

    if (recipientPartyId) {
      //Call to send notification
      adf.util.sendNotification(adf, messageText, recipientPartyId)
      //Log a confirmation that the notification has been sent. Logs can be viewed in 'Runtime Messages'.
      //println("Notification sent to " + recipientPartyId + " because the SR was escalated.")
    } else {
      println("No Assignee associated with this SR")
    }
  } catch (e) {
    //Log the failure in groovy logging. Logs can be viewed in 'Runtime Messages'.
    println("Failure to trigger notification from Groovy Script " + e.getMessage());

    // Throwing validation exception will show the message on the UI. This is not recommended for published
    // sandboxes.
    // The following code is one of many to illustrate identifying an error in trigger from the UI.
    // Replace <triggerName> with the trigger name you specified when creating this trigger.
    // throw new oracle.jbo.ValidationException('Failure to trigger <triggerName> Notification from Groovy
    // Script: ' + e.getMessage())
  }
}

```

## Work Order Assigned

This is sample code to trigger a notification to be sent to the recipient specified in the Notification Preferences page when a work order is created.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Work Order > Server Scripts.

```

/* DISCLAIMER: This trigger is provided only as a reference.
* TRIGGER TYPE: Before Insert to Database
* OBJECT: Work Order
* Use Case: Send a notification when a work order is created.
* Note: You can override the Notification Text and Recipients using the Notification Preferences page.
*/

try {
  def messageText = WoId.toString() + ':' + WoNumber + ' - This Work Order has been assigned to you'
  def recipientPartyId = AssigneeResourceId
  def recipientName = AssigneePersonName
  if (recipientPartyId) {
    adf.util.sendNotification(adf, messageText, recipientPartyId)
    //Log a confirmation that the notification has been sent. Logs can be viewed in 'Runtime Messages'.
    //println("Notification sent to " + recipientName + " because Work Order assigned to them")
  } else {
    println("No Assignee associated with this Work Order")
  }
}

```

```

    }
  } catch (e) {
    //Log the failure in groovy logging. Logs can be viewed in 'Runtime Messages'.
    println("Failure to trigger notification from Groovy Script " + e.getMessage());

    // Throwing validation exception will show the message on the UI. This is not recommended for published
    sandboxes.
    // The following code is one of many to illustrate identifying an error in trigger from the UI.
    // Replace <triggerName> with the trigger name you specified when creating this trigger.
    // throw new oracle.jbo.ValidationException('Failure to trigger <triggerName> Notification from Groovy
    Script: ' + e.getMessage())
  }
}

```

## Work Order Complete

This sample code triggers a notification to be sent to the recipient specified in the Notification Preferences page when a work order status is updated to complete.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Work Order > Server Scripts.

```

/* DISCLAIMER: This trigger is provided only as a reference.
* TRIGGER TYPE: Before Update to Database
* OBJECT: Work Order
* Use Case: Send a notification when a work order is completed.
* Note: You can override the Notification Text and Recipients using the Notification Preferences page.
* When WO_STATUS_CD is exposed in Application Composer, this script can be changed. Change everywhere that
says 'WoStatusCdMeaning' to 'WoStatusCd'
* and change the comparison in the if statement to 'ORA_SVC_WO_COMPLETE' instead of 'Complete'.
*/

if (isAttributeChanged('WoStatusCdMeaning') && WoStatusCdMeaning == 'Complete') {
  try {
    def messageText = WoId.toString() + ':' + WoNumber + ' - This Work Order has been Completed'
    def recipientPartyId = AssigneeResourceId
    def recipientName = AssigneePersonName
    if (recipientPartyId) {
      adf.util.sendNotification(adf, messageText, recipientPartyId)
      //Log a confirmation that the notification has been sent. Logs can be viewed in 'Runtime Messages'.
      //println("Notification sent to " + recipientName + " because status of WO is Complete")
    } else {
      println("No Assignee associated with this Work Order")
    }
  } catch (e) {
    //Log the failure in groovy logging. Logs can be viewed in 'Runtime Messages'.
    println("Failure to trigger notification from Groovy Script " + e.getMessage());

    // Throwing validation exception will show the message on the UI. This is not recommended for published
    sandboxes.
    // The following code is one of many to illustrate identifying an error in trigger from the UI.
    // Replace <triggerName> with the trigger name you specified when creating this trigger
    // throw new oracle.jbo.ValidationException('Failure to trigger <triggerName> Notification from Groovy
    Script: ' + e.getMessage())
  }
}

```

## Send Internal Note

This is sample code to trigger a notification to be sent to a recipient when a new SR message of type Internal Note is created.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Message > Server Scripts.

```
/* DISCLAIMER: This trigger is provided only as a reference.
 * TRIGGER TYPE: Before Insert to Database
 * OBJECT: Message (child of Service Request)
 * Use Case: Send an internal notification to the user when an SR message is created.
 */

if(MessageTypeCd == 'ORA_SVC_INTERNAL_NOTE')
{
  try{
    def map = new HashMap();
    map.put("Channels", ["ORA_SVC_BELL", "ORA_SVC_EMAIL"]);
    map.put("MessageText", "Internal Note message");
    map.put("RecipientPartyId", ServiceRequest?.AssigneeResourceId);
    map.put("ObjectCode", 'ServiceRequestVO');
    map.put("ObjectId", SrId);
    adf.util.sendNotification(adf, map);
  }
  catch (e) {
    throw new oracle.jbo.ValidationException('Failure: ' +
e.getMessage())
  }
}
```

## Add Service Request Resource

This is sample code to trigger a notification to a new resource member when that member is added to an SR.

You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Service Request Resource > Server Scripts.

```
/* DISCLAIMER: This trigger is provided only as a reference.
 * TRIGGER TYPE: Before Insert to Database
 * OBJECT: Service Request Resource (child of Service Request)
 * Use Case: Send a notification to a new resource member when that member is added to an SR.
 */

try {
  def map = new HashMap();

  // Specify default MessageText
  def messageText = "You are now a team member"

  // Specifying the recipient
  def recipientPartyId = PartyPartyId

  //Resolving Parent child object relation. Use respective parent object apinames. Eg:
  ServiceRequestVO,HRHelpDeskRequestVO
  def objectCode='ServiceRequestVO'

  Long objectId = SrId
```

```
// Specify one or more channels
map.put("Channels", ["ORA_SVC_BELL", "ORA_SVC_EMAIL"]);

map.put("MessageText", messageText);
// The following can be used to pass a Long PartyId
map.put("RecipientPartyId", recipientPartyId);
map.put("ObjectCode", objectCode);
map.put("ObjectId", objectId)
if ( recipientPartyId != null ) {
// Call to send notification
adf.util.sendNotification(adf, map);
}
else {
println("No recipient. Notification will not be sent.");
}
}
catch (e) {
// Log the failure in groovy lo'RuntimeMessages'.
println("Failure to trigger notification from Groovy Script " +
e.getMessage());
}
```

## Set Push Notifications

### Configure Push Notifications

With the push notification framework users, such as service agents and managers, can get push notifications about service request events delivered to their mobile devices. Once an agent is signed in to the mobile application, they can view a list of their notifications by

You define notifications in Application Composer with your unique conditional logic. This lets you decide when to raise each notification. For example, you can define alerts for upcoming SLA milestones, reassignments, or escalations. The administrator can also decide whether to enable mobile push notifications for certain alerts, or to deliver the alerts only to the Bell notifications on the desktop application. Note that bell notifications are always delivered, even if mobile notifications are disabled. Clicking a notification and navigating to the record details marks the notification as read, and it's cleared from the notification list.

You define notification triggers as a groovy expression in Application Composer using conditions that must be met for each notification. For example, a trigger can be defined to send a notification when a high-severity service request is assigned to a user. When the Service Notifications feature is enabled, Bell notifications are automatically enabled.

Push notifications are supported in iOS and Android devices.

Here's what you do to enable push notifications:

1. Log in as an administrator, click Setup and Maintenance, and then from the Setup menu, select **Service**.
2. In the Functional Areas section, select Productivity Tools, and then select **Change Feature Selection**.
3. Select Service Notifications, then click the **Enable** check box to enable Service Notifications and Mobile Notifications.



# 22 Service Analytics

## How to View Analyses Using OTBI

Oracle Transactional Business Intelligence (OTBI) is a real time, self-service reporting solution bundled with your application.

It provides prepackaged analytic content built on the Oracle Business Intelligence (BI) platform. These include subject areas for building your own dynamic analyses using an intuitive interface, industry standard metrics, and role-based, best practice reports and dashboards that deliver up-to-the-minute business insight across the entire extent of your service-related business operations.

Here's how you can view the analyses:

- To access BI Catalog, select **Navigator > Tools > Reports and Analytics**. The Reports and Analytics page is displayed.
  - Click the **Hierarchical Selector >>** icon and select **My Folders** or **Shared Folders** from the menu. Alternately, you can click the **Browse Catalog** button. The BI Catalog is displayed, where you can view your personal and shared analyses. You can also create your own analyses based on your business requirements using subject areas. You need to have the necessary privilege for authoring analyses.
- To access the Analytics page, from the Home page, click the Service group icon, and then click the Analytics icon. The Analytics page is displayed. You can search for the analyses available in BI Catalog, and mark your favorites. These favorites stay on the Analytics page as long as they remain favorites. This page also shows the analytics recently viewed by the signed in user.
- To access the Service Infolets page, from the page control on the Home page, click the Service Infolets icon. Prebuilt and administrator-defined or user-defined infolets are displayed on the Service Infolets page.

## How You Manage Service Infolets

For the prebuilt Service roles, the Service Infolets page displays the infolets based on the user's role. For administrator-defined roles, administrators must enable the Service Infolets page for each new role.

The procedures to create, manage, and enable Service infolets are the same as that for Sales infolets.

- For information about how to create and manage infolets, see [Overview of Configuring Infolets](#).
- For information about how to build analytics, see [Create and Edit Analyses Using a Wizard](#).

### Related Topics

- [Analytics Resources](#)

## Service Analytics Roles

The following job roles enable to view analyses:

The user with a BI Administrator role defines which users, application roles, and catalog groups have the following privileges:

- Receive the delivery content of an agent.
- Have permission to access a section or alert section in a dashboard.
- Have permission to use a saved modification.
- Have permission to add or edit an existing catalog group.
- Assign permissions to a catalog object.

The OTBI transactional analysis duty roles for your service application are described in detail in the related topic "About Security Roles".

## Service Dashboard

Service managers and agents can monitor their team and individual service performance using the role based, interactive service dashboard.

To access the dashboard, go to the **Service** menu on the home page and click the **Service Dashboard** Quick Action list.

The dashboard shows a series of prebuilt infolets, which display metrics/key performance indicators (KPI). An infolet may also display an analytic like a bar graph or a pie chart. Upon drilling into the infolet, a detailed report in tabular format is shown. For example, the **Critical Service Requests** infolet shows the list of individual SRs with their Reference Number, Title, Status, Assignee, and other relevant information. Users can navigate to individual records of the business objects displayed on a detailed report. For example, by clicking on the SR Reference Number one can navigate to the SR detail page and perform any updates to the SR and navigate back to the dashboard to resume analysis.

The service dashboard is can also be personalized to suit individual preferences. One can choose to hide/show the out of box infolets. Use the hide/show icon on the infolet to do so. As an end user (manager or agent) you can also change the order of display of the infolets. You can do this by clicking on the infolet with your mouse and dragging it to desired position on the dashboard. Once you do this, a **Save** button appears, after which you can choose to save the new layout or cancel it. Note that all personalization changes are user and browser specific.

## Custom Infolet

You can add your own infolets to the dashboard. To do this, click on the menu button (elipsis ...) at the top right corner of the dashboard and click **Add Infolet**. From the panel that appears on the right, navigate to the location of the Tile report in the BI catalog.

Here's a sample folder: Shared Folders/Custom/Enterprise Support/Strategic Service Requests/Tile: Escalated SRs.

For a BI report to be added as an infolet, its name should be in the format Tile: <<name of report>>. Click the report to be added as an infolet and click Next. At this point you can configure the infolet and to do so you are presented with a series of options to format . After selecting the appropriate choices, click **Add**.

Infolet Name	Job Role	OTBI Transactional Analysis Duty Role
<ul style="list-style-type: none"> <li>• Agents with Most Pending Service Requests</li> <li>• Critical Service Requests</li> <li>• Long Wait on Agent</li> <li>• Queues by Unassigned Service Requests</li> </ul>	<ul style="list-style-type: none"> <li>• Customer Service Manager</li> <li>• Sales Administrator</li> </ul>	<ul style="list-style-type: none"> <li>• Service Managerial Transaction Analysis Duty</li> <li>• Service Administrative Transaction Analysis Duty</li> </ul>

Infolet Name	Job Role	OTBI Transactional Analysis Duty Role
<ul style="list-style-type: none"> <li>Team Resolve Time</li> <li>Inbound Emails</li> <li>Team SR Work Time</li> </ul>		
<ul style="list-style-type: none"> <li>My Resolve Time</li> <li>Pending Tasks</li> <li>Waiting on Me</li> <li>Waiting on Customer</li> </ul>	<ul style="list-style-type: none"> <li>Customer Service Representative</li> <li>Sales Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Service Transaction Analysis Duty</li> <li>Service Administrative Transaction Analysis Duty</li> </ul>
<ul style="list-style-type: none"> <li>Inbound Social Posts</li> <li>Omnichannel Agent Assignments</li> <li>Omnichannel Assignments</li> <li>Omnichannel Queue Assignments</li> <li>Team Open Work Orders</li> <li>Team Completed Work Orders</li> <li>Team SRCompliance</li> <li>Team Action Plan Actions Past Due</li> </ul>	<ul style="list-style-type: none"> <li>Customer Service Manager</li> <li>Sales Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Service Managerial Transaction Analysis Duty</li> <li>Service Administrative Transaction Analysis Duty</li> </ul>
<ul style="list-style-type: none"> <li>My Open Work Orders</li> <li>My Completed Work Orders</li> <li>My SR Compliance</li> <li>My Action Plan Actions Past Due</li> <li>My SR Work Time</li> <li>SR Movement in Queues</li> </ul>	<ul style="list-style-type: none"> <li>Customer Service Manager</li> <li>Sales Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Service Transaction Analysis Duty</li> <li>Service Administrative Transaction Analysis Duty</li> </ul>

*Related Topics*

- [About Security Roles](#)

## Analytics Subject Areas

Creating analyses begins with subject areas. A subject area is a functional grouping of the contextual entities (also called dimensions) by which the metrics (also called facts) can be analyzed.

Subject areas are the building blocks of analytic content in OTBI. For example, the columns in a tabular report showing the number of open SRs (metric or fact) by Agent Name (context or dimension) are sourced from one of the subject areas. Multiple subject areas can be joined to produce reports, when cross-functional analysis is needed.

The service application comes with a variety of standard subject areas for you to select from when you're building or editing your analytics. For more information on Fusion Sales and Fusion Service subject areas, see the [Subject Areas for Transactional Business Intelligence in Fusion Sales and Fusion Service](#) guide.

Additional subject areas focused on analyzing knowledge articles and their usage in service requests are available for knowledge managers and analysts. For more information, see [Knowledge Analytics](#) .

## Overview of Parent and Child Interactions in Analytics

With the support for cross-channel interactions, there is the prospect of an initiated interaction crossing channels and agents. Additionally, the ability to associate multiple business objects is also introduced as part of this functionality.

When a communication is initiated with a customer, an interaction is created that contains the channel, contact, resource, and multiple other attributes. Each interaction can have only one reference to each of these attributes. In the case of business objects, an interaction can be associated with one of each type of business object. In the case where a communication adds additional attributes, the application automatically generates a child interaction, and associates it to the original parent.

Here's a few examples of such cases:

- A communication crosses channels (the child interaction would store the new channel).
- A communication is transferred between agents (the child interaction would store the second agent).
- More than one type of business object is associated. For example, an interaction can be associated with one service request. However, if during the conversation, a second service request is created or updated, the second interaction would have to be stored in a child interaction.

For metric calculations in BI, it's often necessary to count the entire set of these atomic interactions, as a single interaction. This single interaction is referred to as the parent interaction. The atomic interactions are referred to as child interactions. The parent interaction count isn't the summation of child interaction count. In any cross-channel or cross-agent interaction, there's always a single parent interaction, and more than one child interactions.

## Service Analytics Saved Queries

Saved queries are canned analyses that enable you to construct reports efficiently. The saved queries are pre-calculated data filters that can be conveniently applied on any analyses that you want to build. They're also useful in cross-subject-area reporting.

Here's how you access the saved queries:

1. Click **Navigator > Tools > Reports and Analytics**.
2. Click **Browse Catalog**.  
The **Oracle Business Intelligence Catalog** page is displayed.
3. In the Folders pane, click **Shared Folders > Service > Subject Area Contents > Saved Queries - OTBI**.

Here's a table that provides details about the available saved queries:

Analyses Name	Description	Job Role
SRs assigned to me	Saved query to retrieve the list of SRs assigned to the signed in user. Apply this on the <b>Service Request ID</b> column when used in analyses.	<ul style="list-style-type: none"><li>• Customer Service Representative</li></ul>

Analyses Name	Description	Job Role
		<ul style="list-style-type: none"> <li>Sales Administrator</li> </ul>
SRs where I am on the team	Saved query to retrieve the list of SRs where the signed in user is part of the SR team. Apply this on the <b>Service Request ID</b> column when used in analyses.	<ul style="list-style-type: none"> <li>Customer Service Representative</li> <li>Sales Administrator</li> </ul>
SRs assigned to me or my subordinates	Saved query to retrieve the list of SRs assigned to the signed in user or the user's subordinates. Apply this on the <b>Service Request ID</b> column when used in analyses.	<ul style="list-style-type: none"> <li>Customer Service Manager</li> <li>Sales Administrator</li> </ul>
SRs where I am or my subordinates are on the team	Saved query to retrieve the list of SRs where the signed in user or the user's subordinates are part of the SR team. Apply this on the <b>Service Request ID</b> column when used in analyses.	<ul style="list-style-type: none"> <li>Customer Service Manager</li> <li>Sales Administrator</li> </ul>
Queues where I am a resource	Saved query to retrieve the list of queues where the signed in user is a resource. Apply this on the <b>Queue ID</b> column when used in analyses.	<ul style="list-style-type: none"> <li>Customer Service Representative</li> <li>Sales Administrator</li> </ul>
Queues where I am or my subordinates are resources	Saved query to retrieve the list of queues where the signed in user or the user's subordinates are resources. Apply this on the <b>Queue ID</b> column when used in analyses.	<ul style="list-style-type: none"> <li>Customer Service Manager</li> <li>Sales Administrator</li> </ul>

## Analytics Resources

Here's the resources that provide *additional information* on the Fusion Sales and Fusion Service analytics:

- [Prebuilt Fusion Service analytics spreadsheet.](#)
- [Creating and Administering Analytics guide.](#)
- [Subject Areas for Transactional Business Intelligence in Fusion Sales and Fusion Service guide.](#)
- [Security for Sales Analytics and Reports guide.](#)
- [Securing Sales and Fusion Service guide.](#)
- [Oracle Transactional Business Intelligence guides.](#)
- [Fusion Service Report Sharing Center cloud customer connect.](#)
- [Analytics and Reporting Best Practices support resource center.](#)
- [R13.x CX OTBI Subject Area to Database Lineage Mapping Spreadsheet](#)
- [About Creating Your Own Subject Areas](#)



# 23 Import and Export

## Overview of Import and Export Management

You can import and export a wide range of application data using import and export management in your service application.

For example, you can use the export management feature to export object data so that you can then import it into another instance. You can also import records to the applications so that you don't have to create the records in the user interface. Only users with the service request administrator duty role can import and export objects. For more information, see the Oracle Fusion Understanding Import and Export Management for Sales and Service guide.

## Overview of Import Objects

You can import several objects into the application using the import management framework.

To import objects, Click **Tools > Import Management > Import Objects**.

The following is a sample list of top-level and sublevel objects that you can import into the service application. For more information on these and other objects available for import, see the Oracle Fusion Understanding Import and Export Management for Sales and Service guide.

- Service Requests
  - Messages
  - Contact Members
  - Resource Members
  - References
- Queues
  - Queue Party Resources
  - Queue Team Resources
- Categories
  - Service categories

**Note:**

- Since the service request data is dependent upon queues and categories, you must import the queues and categories before importing your service requests.
- Interactions: You can't import interactions into the application, but you can export the interactions for the service requests.
- Inbound email
- Inbound Message Filters: You can import the inbound message filters through Setup and Maintenance.

- Milestone Configuration: You can import and export milestone configurations only through Setup and Maintenance.
- Channels
  - Channel Resources
- Standard Text Folders: The import facility doesn't support importing hierarchical data directly. To import folders hierarchies, such as parent and child relationships, you must import the standard text folders data twice. The first time you import the file, the object data is added, and the second time you import the same file, the relationships are created.
- Standard Text Variables
- Standard Text
  - Standard Text Relations
- Self-Service Roles

## Overview of Export Objects

You can extract large volumes of data from the application using bulk export. You can either extract a full set of records for an object, or perform incremental extracts. For example, you can extract the complete set of service requests data or extract an updated set of records every week.

To export objects, Click **Tools > Export Management > Export Objects**. For more information, see the Oracle Fusion Understanding Import and Export Management for Sales and Service guide.

### *Related Topics*

- [Overview of Bulk Data Export](#)
- [How do I enable import of custom objects?](#)

## Use Functional Setup Manager to Import, Export, and Compare Categories Between Environments

Your users can import, export, and compare service categories between environments using Functional Setup Manager. Users to create or update setup service category data in bulk as well as compare differences between two environments.

For example, a user wants to import service category data into a production environment that has been exported from a test environment after making changes to the setup data. Before the user imports the data, the user can compare the exported data of the test environment with the existing production data, and preview how the setup data in production will change after the data is imported.

Any implementation usually requires migrating setup data from one environment to another at various points in the subscription lifecycle. For example, a subscribed offering is typically set up in the test environment first, and is moved to the production environment only after proper testing and verification. Setup export and import processes help you migrate setup data from test to production.

**Note:** You must have the Application Implementation Consultant role (ORA\_ASM\_APPLICATION\_IMPLEMENTATION\_CONSULTANT\_JOB) to export, import, and compare setup data.

For more information, refer to the Related Topics section for a link to the Oracle Fusion Using Functional Setup Manager guide.

#### Related Topics

- [Export and Import CSV File Packages](#)

## Before You Import

Since the service request data is dependent upon queues and categories, you must import the queues and categories before importing your service requests. Before you import service requests, queues, or categories, you must first import the following dependent objects:

- **Accounts:** The list of accounts that can be associated with the SR. Selecting an account is required when creating an SR. For more information about importing accounts, see "Import Your Account Data" in the guide specified in Related Topics.
- **Contacts:** The list of contacts for each account that can be associated with the SR. For information about importing contacts, see "Import Your Contact Data" in the guide specified in Related Topics.
- **Resources:** The list of resources to which you can assign work objects in the SR. For information about importing resources, see "Import Resource Data" in the guide specified in Related Topics.
- **Partners:** The list of partner accounts that you can associate with an SR. For information about importing partners, see "Import Your Partner Data" in the guide specified in Related Topics.
- **Product Groups:** A product group is a group of related products. For information about importing product groups, see "Import Your Product Group Data" in the guide specified in Related Topics.
- **Products:** List of products against which you can raise an SR. For information about importing products, see "Import Your Product Data" in the guide specified in in Related Topics.
- **Asset:** List of assets associated with the account. For information about importing assets, see "Import Your Asset Data" in the guide specified in Related Topics.
- **Categories:** The categories associated with the SRs. For information about importing categories, see "Import Your Service Request Data" in the guide specified in Related Topics.
- **Queues:** The queues to which your SRs are assigned. For information about importing queues, see "Import Your Queue Data" in the guide specified in Related Topics.
- **Channels:** Import the channels that are already associated with your SRs. For information about importing channels, see "Import Your Service Request Data" in the guide specified in Related Topics.
- **Tags:** The administrator-defined tags to be associated with SRs. For information about importing tags, see "Import Your Service Request Data" in the guide specified in Related Topics.

#### Related Topics

- [Oracle Fusion Understanding Import and Export Management for Sales and Service](#)

## Import Objects

After you import the dependent objects, create an import activity to upload details of objects you want to upload. Here's how you import an object:

1. Set up the import options.

You select the object you're importing, specify the file format and different import options, and upload the file with your data. The options that are available depend on the object that you're importing. Some import objects, for example, permit you to upload a ZIP or Java archive (JAR) file of attachments. These attachments are then attached to the records in the application after the import is complete.

2. Map the fields.

For this task, you create a mapping of the data in your file and the attributes in the application. You can also reuse a mapping that you have created in past import activities. Any mapping you create in an activity is automatically saved. This mapping can be reused in subsequent imports and can be managed using the [Manage Mapping](#) page.

3. Schedule the import.

You can schedule to run the import at a time you specify or run it immediately.

4. Review and activate the import activity.

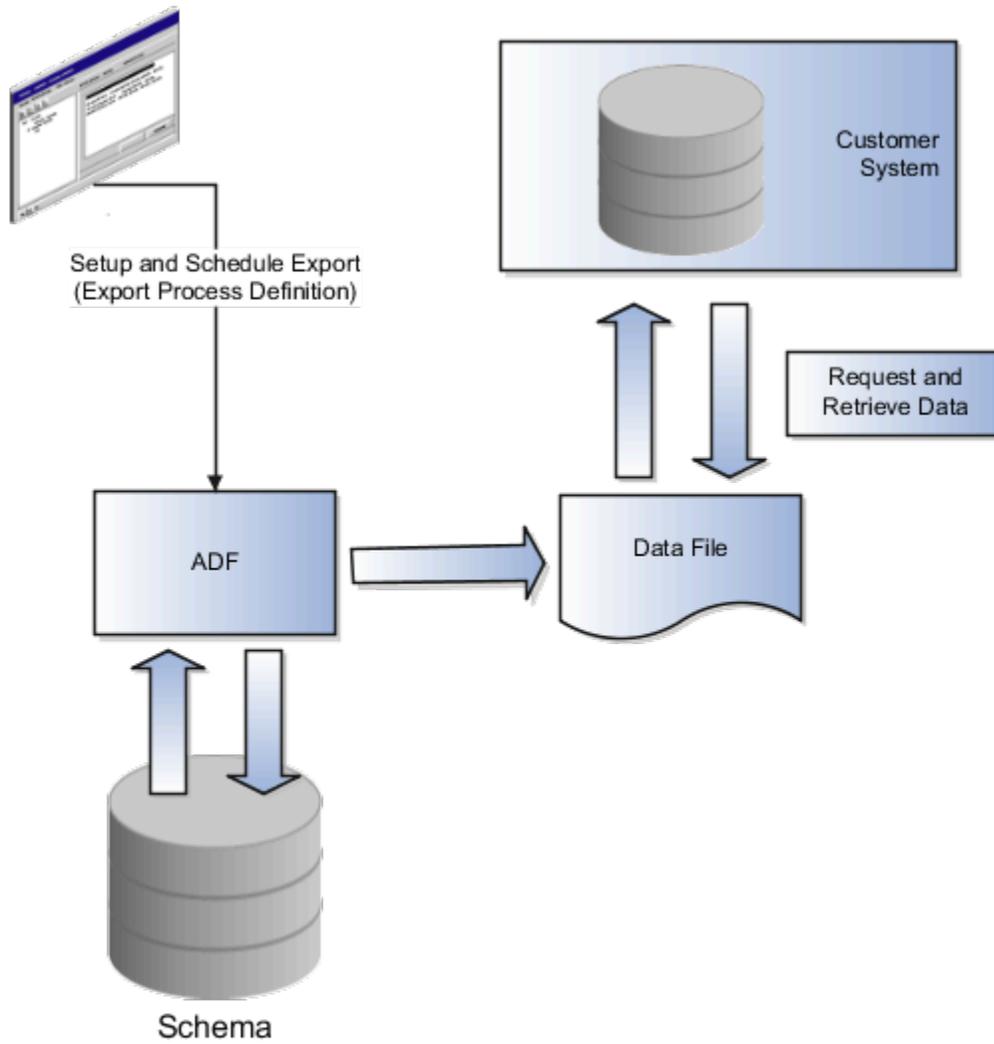
Review your import details and click **Activate** to activate the import activity.

You can use predefined .csv templates for your service requests, queues, and categories that are provided in the application. You can also import user-defined objects.

## Overview of Bulk Data Export

You can extract large volumes of data using bulk export. You can either extract a full set of records for an object, or perform incremental extracts.

For example, you can extract complete set of account data or extract updated set of records every week. Bulk export creates comma separated or tab delimited files, which are attached to the export process.





# 24 Set Up Service Work Orders

## General Work Order Setup

### Overview of General Work Order Setup

You can set up generic work orders, work orders integrated with Oracle Field Service, or work orders that are integrated with other applications.

Generic work orders are enabled and ready to use in Oracle Fusion Service.

#### If you don't want to use work orders:

If you don't want to use work orders, you can opt out. To do this:

1. In the Setup and Maintenance Work Area go to the following:
  - o Offering: Service
  - o Functional Area: Change Feature Opt In
2. Deselect the **Enable** check box in the **Work Order** row.
3. Click **Done**.

#### If you're already using Field Service Work Orders:

If you're using Field Service Cloud work orders prior to release 19.10, you must enable the generic work order.

1. In the Setup and Maintenance Work Area go to the following:
  - o Offering: Service
  - o Functional Area: Work Order
  - o Task: Manage Work Order Integrations
2. Enable the Generic Work Order.

**Note:** Once you enable this, the work order is exposed to the end user, so set up the generic work orders before you enable it.

3. Click **Save and Close**.

**Note:** You can manage access to service work order data security for your users through system access groups and predefined rules. See the topics in the Users and Security chapter in this guide.

# Work Order Integrations, Types, and Statuses

## Manage Work Order Integrations

In this task, you manage integrations for generic work orders integrated with other applications, and field service work orders.

**Note:** You must have a role that contains the following privileges to perform this task:

- Setup and Maintain Applications
- Setup Service
- Setup Service Work Order

To manage work order integrations:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Work Order
  - Task: Manage Work Order Integrations

In the Work Order Integration section you can:

- Rename the work order
- Choose the display order for the **Create** work order button
- Change the description of the work order
- Create a new type of work order such as a work order integrated to another application
- Enable the work order to display on the **Create** button

**Note:** If you have more than one work order enabled, the user sees a drop-down list on the **Create** button.

The Work Order Integration page shows the different work order types. Predefined integrations are:

- ORA\_WO\_INT\_SVC: Work orders that aren't integrated with an external application.
- ORA\_WO\_INT\_OFSC: Work orders that are associated to an activity in Oracle Field Service Cloud.

In the Work Order Details section of the page you associate the status and types specific to each integration.

## Manage Work Order Types

Use the Types tab on the Manage Work Order Integrations page to create work order types.

**Note:** You must have a role that contains the following privileges to perform this task:

- Setup and Maintain Applications
- Setup Service
- Setup Service Work Order

## Work Order Type Configuration

Add and update the types of work orders you're using on the Manage Work Order Integrations page. Enabled work order types appear in the drop-down list for agents when they create a work order. To configure the work order type:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Work Order
  - Task: Manage Work Order Integrations
2. Select the row of the integration you want to manage the work order types.
3. Select the **Types** subtab in the Details region.
4. Add and update types of work orders.

The following table shows the columns on the Work Order Types page with descriptions.

Column	Required	Description
Activity Type Code	Yes	Value of the label property from the corresponding activity type.
Work Order Type Code	Yes	Unique code for a work order type.
Work Order Type	Yes	Value that's visible to the user in the work order.
Manual Duration	Yes	Number of zero or greater based on the corresponding activity type property setting. This value is either used or ignored when estimating the duration to perform the activity.
Description	No	General description of the work to be performed.

**CAUTION:** Work order types can't be deleted.

5. Click **Save and Close**.

*Related Topics*

- [How do I update existing setup data?](#)

## Manage Work Order Statuses

Use the Statuses tab on the Manage Work Order Integrations page to manage work order statuses.

**Note:** You must have a role that contains the following privileges to perform this task:

- Setup and Maintain Applications
- Setup Service
- Setup Service Work Order

To manage work order statuses:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Work Order
  - Task: Manage Work Order Integrations
2. Select the row of the integration you want to manage the work order statuses.
3. Select the **Status** tab in the Details region.
4. Change the status codes to your preference.
5. Add new statuses for generic or other work orders.

The following table shows the parts of work order statuses.

Column	Editable	Description
Status Code	No	Predefined status code. Work order status codes can't be deleted.
Status	Yes	Status that appears on work orders in Fusion Service.
Status Category	Yes  Options are: <ul style="list-style-type: none"> <li>• Canceled</li> <li>• Closed</li> <li>• Open</li> </ul>	Category which an agent can filter work order statuses when querying work orders from the work order tab.
Display Order	Yes	Determines the sort order of the work order types on the work order page.

Column	Editable	Description
Description	Yes	Description of the status. This description doesn't appear anywhere outside of the setup task.

The following table shows predefined values for work order statuses.

Status Code	Status	Status Category	Description
ORA_SVC_WO_CANCEL_SUBMITTED	Cancel Submitted	Canceled	A cancellation request was submitted for the work order.
ORA_SVC_WO_COMPLETE	Complete	Closed	The activity was completed.
ORA_SVC_WO_NOT_DONE	Not Done	Closed	The activity wasn't completed. Create a new work order and schedule work to continue another day.
ORA_SVC_WO_CANCELED	Canceled	Canceled	The work order activity was canceled.
ORA_SVC_WO_SUSPENDED	Suspended	Closed	The activity is delayed and the work continues later in the day.
ORA_SVC_WO_PENDING	Scheduled	Open	An activity was created and is now scheduled.
ORA_SVC_WO_STARTED	Started	Open	The activity is in progress.
ORA_SVC_WO_SUBMITTED	Submitted	Open	A work order was submitted.

#### Related Topics

- [How do I update existing setup data?](#)

## Enable Cancel Part Orders in Service Logistics for Canceled Work Orders

The work order cancel process automatically attempts to cancel any part orders associated with a work order when a user tries to cancel the work order. You can select the work order statuses where you want the cancellation process to be enabled.

If part orders can't be canceled, a user can still cancel the work order and those part orders are handled through reverse logistics.

To enable the cancel process:

## Setup and Maintenance

- Offering: Service
  - Functional Area: Work Order
  - Task: Manage Work Order Integrations
1. On the Manage Work Order Integrations page, select the row for the work order integration where you want to enable the cancel process.
  2. On the Status tab in the Details region, select the **Enable Cancel Process** check box  
  
for any of the items with a status category of canceled.  
  
If the status is anything other than canceled, the Enable Cancel Process check box is disabled.
  3. Click **Save and Close**.

## Manage Work Order Profile Options

In the Manage Work Order Profile Options task, you set the profile options for work orders. There are three predefined profile options.

**Note:** You must have a role that contains the following privileges to perform this task:

- Setup and Maintain Applications
- Setup Service
- Setup Service Work Order

To set the profile options:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Work Order
  - Task: Manage Work Order Profile Options
2. Optionally, make changes.
3. Click **Done**.

The following table shows predefined work order profile options.

Profile Option	Default Value	Explanation
SVC_WO_NUMBER_FORMAT	0000000000	Sets the formatting for the work order number. The work order number increments from the set value. The default value is ten zeros. The value can be changed.

Profile Option	Default Value	Explanation
		<p><b>Note:</b> This format overrides the format identified in the RADIX for the Manage Public Unique Identifier Sequence Generation.</p>
SVC_ENABLE_AUDIT_IN_WO	No	Exposes the audit feature tab on the Work Order detail page so users can view the Work Order audit records.
SVC_WO_FIELD_SERVICE_OPT_IN	No	<p>Turns the work order functionality on and exposes work orders to users.</p> <p><b>Note:</b> This profile option is visible in all releases, however if you're implementing Field Service in later releases, you should use the Change Feature Opt-in link to turn on the work order functionality. See the procedure for Exposing the Work Order Integration Setup.</p>

**Note:** The default prefix for work orders is CDRM. To change the prefix for work orders, do the following:

- Offering: Sales
- Functional Area: Sales Foundation
- Task: Manage Public Unique Identifier Sequence Generation.

1. Click the **Add Row** icon.
2. Select Work Order from the **Object Name** drop down list.
3. Enter the prefix for the work order. For example, WO.

**Tip:** The maximum length of both prefix and format combined is limited to 30.

## Manage Work Order Integration Messages

Preconfigured integration messages tell users about integration status, warnings, or errors specific to synchronized records with other applications.

You can manage preconfigured integration messages and add new integration messages. For example, you can change the text of an error message to include a contact number for your internal help desk.

## Manage Preconfigured Integration Messages

To manage integration messages:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Work Order
  - o Task: Manage Integration Messages

**Note:** If you disable a message, the message no longer appears in the Detail Work Order page.

## Add Integration Messages

Using Message Codes

There are two ways you can update the record using the message code:

- Using Oracle Integration Cloud Prebuilt Task flow  
You can use integration flows in Oracle Integration Cloud to set the message code on the work order. For example, to add a new message saying the activity was successfully created: Create a message, then update the field `WO_INTEGRATION_MSG_CD` on the work order record in the OIC prebuilt flow.
- Using Object Workflow  
You can also use Object Workflow on a create or update. Set the message to a specific message code there. For example, to add a new message saying the activity was successfully created: Create a message, then update the field `FS_ACTIVITY_ID` on the work order record in the OIC prebuilt flow.

To add an integration message:

1. Click the **Add** icon in the Manage Integration Messages window.  
Notice the Message Category type for the new message is Customer-defined.
2. Enter the title, type of message (error, information, or warning), the text for the message, and the message code.
3. Select **Enable** to enable your new message.
4. Add more messages as necessary.
5. Click **Save and Close**.

## Generic Work Orders

### Overview of Generic Work Orders

A work order can be any work performed at a customer site, like an installation, standard maintenance, or a repair request. A generic work order isn't integrated to any other application.

Use generic work orders if you need to send field service technicians to resolve customer issues. Generic work orders are turned on and ready to use in Fusion Service.

Work orders can have the following information:

- Customer contact information
- Type of work to be performed
- Date and time the work is scheduled
- Information about part orders

## Modify Pages for Generic Work Orders

You can make changes to generic work order elements like objects, fields, workflow, and security privileges in Application Composer.

### Modify the Generic Work Order Pages

To modify work order page layouts:

1. Sign in to Fusion Service as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. Either create a sandbox or activate an existing one.
3. From the **Navigation** panel, go to **Application Composer**.
4. In **Application Composer**, select **CRM Cloud Application** from the **Applications** drop-down list.
5. Select the **Service** check box.
6. In the **Standard Objects** list, select **Service, Work Order**, and then **Pages**.  
The **Work Order Pages** page shows sections you can modify for the Create and Details pages.  
The Create page is what users see when they create a work order. The Details pages are the View and Edit work order pages.  
Repeat the following steps for both the Create and Details pages.
7. To create a new layout, select an existing layout from the Standard Work Order subsection of the Create or Details Page Layouts.
8. Select the Duplicate Layout icon in the Standard Work Order section.
9. Give the Layout a name.
10. Select the Source Layout from the drop-down list.
11. Click Save and Edit.
  - a. Enter the Advanced Expression for the Work Order Integration Code you created in the Manage Work Order Integrations task in FSM.  
For example, if you created a work order integration code called `ADHOC_REQUEST`, enter the expression:

```
WoIntegrationCd=='ADHOC_REQUEST'
```

You can also use the predefined integration codes:

- `ORA_WO_INT_SVC` for work orders not integrated with an external application.
- `ORA_WO_INT_OFSC` for work orders associated with activities in Oracle Field Service Cloud

You can add, remove, and reorder in these regions.

- Contact Details
  - Work Order Details
  - Notes
12. When you're done, save the layout.
  13. Select **Active** to activate your new layout for users.

#### Related Topics

- [About Application Composer](#)
- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Allow Users to Select Specific Field Service Technicians for Work Orders

You can let users edit the Field Service Technician field on work orders.

To do this, you must first assign the proper role and usage type to individual field service technicians. After that, add the Field Service Technician field to the work order page using application composer. Now, the user can select specific technicians from the Field Service Technician field on the work order.

Here are the steps to add a Field Service Technician usage to the technician's usage assignment.

1. Sign in as a user that has the Customer Data Steward role assigned.
2. From the springboard, navigate to Customer Data Management > Persons.
3. On the Persons page, search for the technician.
4. Click the link for the technician's name.
5. On the Edit Person page, click **Usage Assignments** on the menu.
6. Select **Add** from the Actions menu.
7. Select **Field Service Technician** from the **Usage** drop-down list.
8. Click **Save**.

Use Application Composer to Add the Field Service Technician field to the Work Order page. See the related link for more information about adding fields using Application Composer.

After you have added the Field Service Technician field to the Work Order page, the technician appears when selecting resources.

## Related Topics

# Integrated Work Orders for Other Applications

## Overview Work Order Setup for Other Applications

Service agents sometimes need to dispatch field service technicians to resolve customer issues. You can create work orders to integrate with other applications if you aren't using Oracle Field Service Cloud.

Service agents can create work orders that include identifying:

- Customer location
- Contact information
- Type of work order
- Associated assets
- Case notes for field service technicians

## Add Pages for Other Applications

You can make changes to generic work order elements like objects, fields, workflow, and security privileges in Application Composer.

## Modify the Generic Work Order Pages

Here's how you modify work order page layouts.

1. Sign in to Fusion Service as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. Either create a sandbox or activate an existing one.
3. From the **Navigation** panel, go to **Application Composer**.
4. In **Application Composer**, select **CRM Cloud Application** from the **Applications** drop-down list.
5. Select the Service check box.
6. In the **Standard Objects** list, select **Service, Work Order**, and then **Pages**.  
The **Work Order Pages** page shows sections you can modify for the Create and Details pages.  
The Create page is what users see when they create a work order. The Details pages are the View and Edit work order pages.  
Repeat the following steps for both the Create and Details pages.
7. To create a new layout, select an existing layout from the Standard Work Order subsection of the Create or Details Page Layouts.
8. Select the Duplicate Layout icon in the Standard Work Order section.
9. Give the Layout a name.
10. Select the Source Layout from the drop-down list.
11. Click Save and Edit.

- a. Enter the Advanced Expression for the Work Order Integration Code you created in the Manage Work Order Integrations task in FSM.

For example, if you created a work order integration code called `ADHOC_REQUEST`, enter the expression:

```
WoIntegrationCd=='ADHOC_REQUEST'
```

You can also use the predefined integration codes:

- o `ORA_WO_INT_SVC` for work orders not integrated with an external application.
- o `ORA_WO_INT_OFSC` for work orders associated with activities in Oracle Field Service Cloud

You can add, remove, and reorder in these regions.

- o Contact Details
- o Work Order Details
- o Notes

12. When you're done, save the layout.
13. Select **Active** to activate your new layout for users.

## Modify the Generic Work Order Fields

Here's how you modify fields:

1. Sign in to Fusion Service as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a sandbox or activate an existing one.
3. After you activate the sandbox, from the Navigation panel, go to **Application Composer**.
4. In the **Application Composer**, select **CRM Cloud Application** from the Applications drop-down list.
5. Select the **Service** check box.
6. In the **Standard Objects** list, select **Service, Work Order**, and then **Fields**.

Now, configure how you want the fields appear. You can choose whether the fields are required, updatable, or searchable.

**Note:** A shaded field means it's being used in another region and it can't be used again.

### Related Topics

- [About Application Composer](#)
- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Create a Fusion Service Integration User Account for Other Applications

All inbound requests to Fusion Service are routed through Oracle Integration. To make the update in Fusion Service, Oracle Integration initiates the APIs for Fusion Service that are exposed in the Oracle Fusion Sales Catalog.

To initiate the Oracle Fusion Sales Catalog or Event Catalog web services from Oracle Integration, you must create a unique user called the Integration User Account user.

**Note:** To do this task, you must have the IT Security Manager job role.

## Create the Integration User

First, create the new user:

1. Sign in to Oracle Fusion Sales using administrator privileges.
2. Using Navigator, navigate to My Team > Users and Roles.
3. In the Manage Users page, click **Create**.
4. Complete the fields as shown on the following table.

Field	Value
Last Name	SERVICE_APP_ICS_ID
Email	Enter a valid email.
Hire Date	Enter the current date.
User Name	SERVICE_APP_ICS_ID
Person Type	Employee
Legal Employer	Select a valid legal organization from the list of values.
Business Unit	Select a valid business unit from the list of values.

5. Click **Save and Close**.

**CAUTION:** Unless you don't intend to make changes to the prebuilt integration in Oracle Integration, Oracle requires that you use the user name SERVICE\_APP\_ICS\_ID to connect from Oracle Integration to Oracle Fusion because it's used for echo suppression in the prebuilt integration flows. If you use a different user name, you must modify the prebuilt integration flows in Oracle Integration for echo suppression to work.

## Create the SOA Operator Job Role

Now that the user is created, you create the new job role:

1. Using Navigator, select **Security Console** in the **Tools** section.
2. Click **Create Role**.
3. Complete the fields as shown on the following table.

Field	Value
Role Name	SVC soa Operator
Role Code	SVC_SOA_OPERATOR
Role Category	CRM - Job Roles

4. Navigate to the Role Hierarchy train stop and click **Create Role**.
5. Search for the SOA operator role and click **Add Role Membership**.
6. Click **Close**.
7. Navigate to the Summary train stop and verify the SOA operator role shows up in the Role Hierarchy section.
8. Click **Save and Close**.
9. Click **OK** on the confirmation message.

## Assign Job Roles and Setting Password for Integration User

Users must be associated with roles and privileges in Oracle Authorization Policy Manage APM on the Oracle Elements Server

1. Using Navigator, navigate to the Users tab in Security Console.
2. Search for the SERVICE\_APP\_ICS\_ID user.
3. Open SERVICE\_APP\_ICS\_ID and click **Edit**.
4. Click **Add Role**.
5. Search and select Customer Service Representative.
6. Click **Add Role Membership**.
7. Search and select Employee.
8. Click **Add Role Membership**.
9. Search and select Resource.
10. Click **Add Role Membership**.
11. Search and select SVC SOA Operator.
12. Click **Add Role Membership**.
13. Click **Done**.
14. Click **Save and Close**.
15. Click **Reset Password**.
16. Update the password then click **Reset Password**.
17. Click **Done** to sign out of the Security Console.

The Integration User is now set up and is used in the Oracle Integration User connection to Oracle Fusion Service. To verify the integration user was set up correctly, sign in to Oracle Fusion Service using the user credentials.

## Create the Credential Store Framework (CSF) Key for Connecting Other Applications to Oracle Integration

To use the Oracle Integration based integration of Oracle Fusion Service you must first create a CSF key which stores credentials which allow Oracle Fusion Service to access Oracle Integration.

## Prerequisite

Before creating the CSF Key for connecting to Oracle Integration, the Oracle Integration Integration User must first be created.

## Create the CSF Key

To create the new job role:

**Note:** You must have SOA Designer application role to sign in and perform the following task.

1. Access Oracle SOA Composer at the following location: `http://hostname:port/soa/composer`. The `hostname:port` can be determined by signing in to Oracle Fusion Service and copying the first part of the URL and replacing the "`hostname:port`" section of the SOA Composer URL.
2. Click **Manage Security**.
3. Complete the fields as shown on the following table. The values are located in the email you received when Oracle Integration was provisioned.

Field	Value
<code>csf-key</code>	<Oracle Integration Identity Domain>  Here's how to access the domain value. First, you must have at least one OIC flow activated.  Next, use the same <code>hostname:port</code> to access the list of subscriptions at the following location:  <code>http://hostname:port/soa-infra/PublicEvent/subscriptions</code> . In the first line look for the CSF Key. For example, <code>{"subscriptions": [{"csfKey": "Sample.xx.xxx.com"}</code> .  Using this example, your CSF-Key value is: <code>Sample.xx.xxx.com</code>
User Name	<User Name from Oracle Integration Integration User>
Password	<Password from Oracle Integration Integration User>
Confirm Password	<Password from Oracle Integration Integration User>

4. Click **Register**.

The CSF Key is created.

## Create the Oracle Integration Cloud Flows for Work Orders Integrated with Other Applications

Create the Oracle Integration Flows to synchronize the work order to the other application.

In oic:

1. Create a flow based on the Work Order Created Business Event
2. Create a flow based on the Work Order Updated Event

The filter expression for each of the flows must be:

```
<xpathExpr xmlns:inpl='http://xmlns.oracle.com/apps/crm/service/fieldservice/workOrderService/types/'  
xmlns:nsmpr0='http://xmlns.oracle.com/apps/crm/service/fieldservice/workOrderService/'>$eventPayload/  
inpl:result/nsmpr0:WoIntegrationCd = '<Integration Code>'</xpathExpr>
```

Where `<Integration Code>` equals the integration code from the Manage Work Order Integrations task.

To see an example of the create and update flows, download the Oracle Field Service Cloud integration flows and import them into oic.

## Oracle Field Service Cloud Integrated Work Orders

### Overview of Oracle Field Service

Oracle Fusion Service and Oracle Field Service integration supports customers who want to synchronize Fusion Service work orders with activities in Field Service. Synchronization is done using Oracle Integration as the backbone for mapping and information exchange.

The integration supports the following:

- Creating Fusion Service work order which triggers the creation of an Field Service activity.
- Creating a Field Service activity from an Fusion Service work order including:
  - Update
  - Reschedule
  - Cancel
- Updating Fusion Service work orders from Field Service including:
  - Update
  - Move
  - Start
  - Suspend
  - Cancel

- o Not Done
- o Complete

*Related Topics*

- [Integrating Fusion Service with Field Service](#)

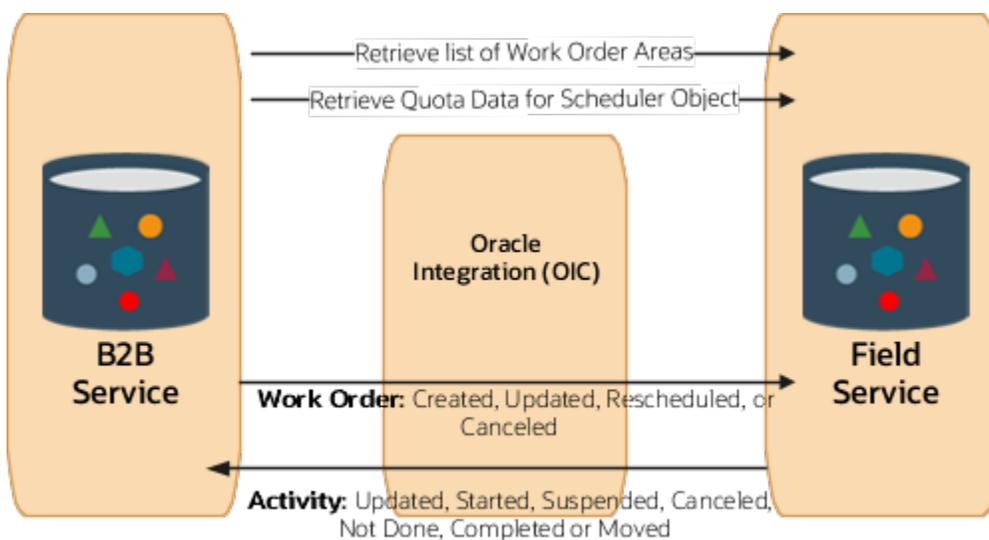
## Integration Component Architecture Between Oracle Fusion Service and Oracle Field Service

Service work order management is the primary use case handled in the Oracle Fusion Service and Oracle Field Service integration.

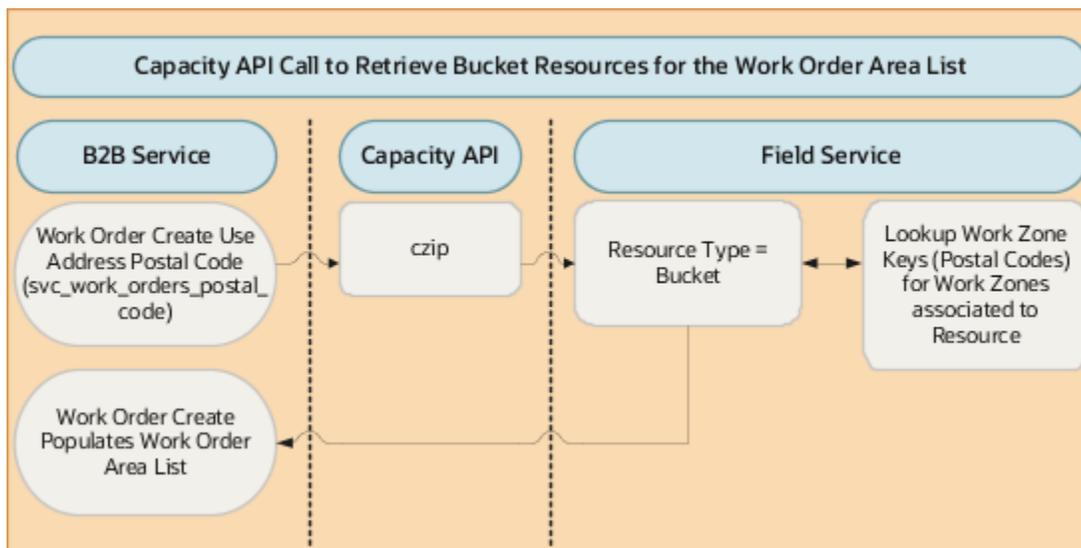
Service work order management has both work order creation and updates in Oracle Fusion Service, and updates in Oracle Field Service. To get this integration, a combination of point-to-point and bidirectional integrations are used. The point-to-point integrations are used for getting data from Oracle Field Service that's used to create and reschedule work orders. Bidirectional integration is used for synchronizing Oracle Fusion Service work orders with Oracle Field Service activities. Oracle Fusion Service and Oracle Field Service Bi-Directional integration uses Oracle Integration as the integration component. Oracle Integration is a complete, secure, and lightweight integration solution where you can connect your applications in the cloud. It simplifies connectivity between your applications, and can connect both your applications that exist in the cloud, and your applications that are still maintained on-premise.

The integration manages error handling and guaranteed delivery by introducing concrete fault handling and prevention measures in the integration layer. This is gained through Oracle Integration. The integration domain covers typical elements and integration functionality such as adapters for connectivity to back-end systems, routing, transformation, and filtering.

The following figure shows the process flow of information between Fusion Service, Oracle Integration, and Field Service.



The following figure shows the point-to-point components of the Oracle Fusion Service and Oracle Field Service integration using the Oracle Field Service Capacity API to retrieve the data work order area list in Oracle Fusion Service from Oracle Field Service.



## Oracle Fusion Service Integration Services

The Fusion Service web services `CustomerWorkOrderService` is used in the integration. This SOAP API is called from the Event Handling Framework to retrieve a work order and Oracle Integration to create, update, reschedule, and cancel a work order in Fusion Service.

## Oracle Field Service Integration Services

These Oracle Field Service web services are used in the integration:

- `BulkUpdateActivity` REST API. Use this web service through `oic` to create, update, and reschedule an activity in Oracle Field Service.
- `cancelActivity` REST API. Use this web service through `oic` to cancel an activity in Oracle Field Service.
- Capacity SOAP API. Use this web service in the point-to-point integration when creating and scheduling a work order to retrieve the list of work order areas based on postal code and time zone and the scheduler data based on work order area and work order type.

## Oracle Integration

The prebuilt integrations are available through Oracle Marketplace. You can sign in and install the package directly into your Oracle Integration instance. The installation includes the following:

- Connection: Oracle Field Service
- Connection: Oracle Fusion Service
- Connection: Oracle REST OFS Attachment
- Integration: Oracle `B2BSVC` `OFS` Work Order Created
- Integration: Oracle `B2BSVC` `OFS` Work Order Updated
- Integration: Oracle `B2BSVC` `OFS` Work Order Canceled
- Integration: Oracle `OFS` `B2BSVC` Activity Updated

- Integration: Oracle `ofs_b2bsvc` Attachment

To access the integrations in Oracle Marketplace, do the following:

1. Access Oracle Marketplace.

You can either use the **Search** field and enter criteria such as Oracle Fusion Service to Oracle Field Service, or do the following steps:

2. Select PLATFORM (PaaS) from the **Products** drop-down list.
3. Select **Oracle Integration**.
4. In the Oracle Integration window, scroll and select **Oracle Fusion Service to Oracle Field Service**.
5. Click **Get App**.
6. Read and accept the Terms and click **Next**.

The My Oracle Support page Integrating Create and Update Processes for Service Work Orders (Document ID 2247612.1) opens. This is where you can download the file

**Note:** If Oracle Marketplace isn't available, you can download the prebuilt files from My Oracle Support. To access the prebuilt integration flow, see Integrating Oracle Fusion Service with Oracle Field Service on My Oracle Support. Oracle Support Document 2247612.1 In the Attachments section, select the appropriate attachment for your implementation. Save the `orcl.r.b2bsvc_ofs_work_order_sync.20_10_0_developed.par` file to a local computer.

## Overview of Echo Suppression and Bi-Directional Synchronization

During bidirectional synchronization, work order activity generates synchronization echos between Oracle Fusion Service and Oracle Field Service. This means that when an event is triggered in Oracle Fusion Service it's synchronized through Oracle Integration to Oracle Field Service, which then fires an event in Oracle Field Service and then back to Oracle Fusion Service, on and on. The Oracle Integration-based integration uses an echo suppression mechanism, which stops unwanted update or create events (the echoes) from going back to the source application.

**CAUTION:** You must follow the user name guidelines for the Oracle Fusion Service integration and Oracle Field Service integration because they're used for echo suppression in the prebuilt integration flows. If you use different user names, you must modify the prebuilt integration flows in Oracle Integration for echo suppression to work.

# Merge Work Order Accounts and Contacts

## About Merging Work Order Accounts and Contacts

When two account or contact records are merged, the application associates service work orders from the merged account or contact to the remaining account or contact.

### Work Order Table Columns

Foreign keys pointing to a deleted party need to be updated to the new party ID whenever a merge takes place for Accounts or Contacts. The following table shows the columns in the `SVC_WORK_ORDERS` table that contain contact or account party data.

Column	Description	Foreign Key To Merge To Table's Column
account_party_id	Account for this work order.	hz_parties.party_id
contact_party_id	Contact for this work order.	hz_parties.party_id
contact_party_site_id	Work order party site where the service will be performed.	hz_party_sites.party_site_id

## The Merge Process

When an account or contact is merged, the work order foreign keys need to be updated to the surviving party. During the merge, both editable and non-editable work orders are updated.

Events are generated for:

- Editable OFS work orders
- All non-OFS work orders (excluding any that you may have made read-only using non-standard values for `WoIntegrationStatusCd`)

## The Merge Uptake

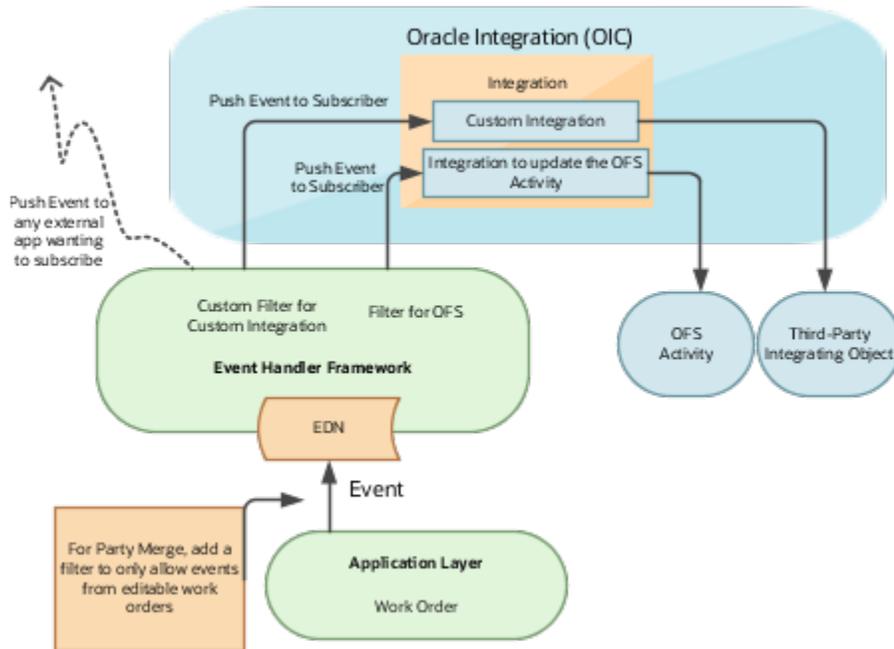
The merge uptake can be done either by specifying metadata in the `.rdf` file or using PL/SQL. Merges are allowed even when the foreign key has validations that disallow the update. For example, the work order is read-only. Such validations can be bypassed by checking if a merge is being performed.

## Integration Events

When a work order is created or updated, an event is generated. These events are used by OIC to sync the data with OFS or with any other external Field Service application.

In the case of a contact or account merge, this updates the work order so it sends the events.

The following illustration shows the flow of create and update events.



## Work Orders Integrating with Oracle Field Service

Work orders support a predefined integration with OFS.

The following table shows the criteria that's already coded for making a work order editable. Read-only work orders don't have events sent to OFS. This code can be reused to enable sending events only when a work order is editable.

Criteria to allow events resulting from a merge (all must be true):

Number	Criteria	Description
1	<code>WoIntegrationCatCd = "ORA_WO_INT_CAT_EXTERNAL"</code>	The work order has a category of external. This category is defined as: <code>WoIntegrationCd</code> isn't 'ORA_WO_INT_SVC' .  <b>Note:</b> This is a redundant criteria given criteria number two.
2	<code>WoIntegrationCd = "ORA_WO_INT_OFSC"</code>	The work order integrates with OFS.
3	<code>WoStatusCd = "ORA_SVC_WO_PENDING"</code>	The work order is open.
4	<code>WoIntegrationStatusCd</code> is one of: <ul style="list-style-type: none"> <li>"ORA_WO_INT_CREATE_SUCCESSFUL",</li> <li>"ORA_WO_INT_UPDATE_SUCCESSFUL",</li> <li>"ORA_WO_INT_RESCHED_SUCCESSFUL",</li> </ul>	If it isn't in one of these integration statuses, it's because a work order transaction is in the process of being sent to OFS and the work order is read-only.

Number	Criteria	Description
	<ul style="list-style-type: none"> <li>"ORA_WO_INT_FS_UPDATE_RECEIVED",</li> <li>"ORA_WO_INT_FS_UPDATE_FAILED",</li> </ul>	
5	<code>scheduledDate</code> isn't in the past	The work order scheduled date isn't in the past.

## Work Orders Integrating with a Third-Party Application

These work orders support an extended integration with a third-party field service application.

The following table shows the criteria that's already coded for making a work order editable. Read-only work orders don't have events sent to third-party applications. This code can be reused to enable sending events only when a work order is editable.

Criteria to allow events resulting from a merge (all must be true):

Number	Criteria	Description
1	<code>WoIntegrationCatCd = "ORA_WO_INT_CAT_EXTERNAL"</code>	The work order has a category of external. This category is defined as: <code>WoIntegrationCd</code> isn't 'ORA_WO_INT_SVC'.
2	<code>WoIntegrationCd</code> isn't "ORA_WO_INT_OFSC"	The work order doesn't integrate with OFS. <code>WoIntegrationCd</code> will contain some custom value, not the predefined values of <code>ORA_WO_INT_SVC</code> or <code>ORA_WO_INT_OFSC</code> .
3	<p><code>WoIntegrationStatusCd</code> is one of:</p> <ul style="list-style-type: none"> <li>NULL</li> <li>"ORA_WO_INT_CREATE_SUCCESSFUL",</li> <li>"ORA_WO_INT_UPDATE_SUCCESSFUL",</li> <li>"ORA_WO_INT_RESCHED_SUCCESSFUL",</li> <li>"ORA_WO_INT_FS_UPDATE_RECEIVED",</li> <li>"ORA_WO_INT_FS_UPDATE_FAILED",</li> </ul>	The work order is open.

## Generic Work Orders

These work orders don't have a predefined integration with any external application. They are always editable, events are always allowed, and any external application can consume the events.

The following table shows the criteria that's already coded for making a work order editable. Criteria to allow events resulting from a merge (all must be true):

Number	Criteria	Description
1	<code>WoIntegrationCatCd = "ORA_WO_INT_CAT_INTERNAL"</code>	The work order has a category of Internal making it a Generic Work Order. This category

Number	Criteria	Description
		is defined as: <code>WoIntegrationCd</code> is 'ORA_WO_INT_SVC'.

*Related Topics*

- [How do I merge duplicate records?](#)

## FAQs about Merging Accounts and Contacts

### Frequently Asked Questions (FAQs) for Merging Accounts and Contacts

This section contains some frequently asked questions (FAQs) when merging accounts and contacts. Scroll or search to find answers to common questions.

## What happens if two accounts are merged, and how does it impact work orders?

If two accounts are merged, you may see a change in the account displayed in the **Account** field of the **Summary** subtab in a work order. That's because the account remaining after the merge is now associated with the work order, as it replaces the merged account. However, no data is lost, as the records are merged..

When two contacts are merged:

- The work order objects associated with the merged account are associated with the remaining account.
- The merged account is no longer associated with the work order. Instead, the remaining account is associated with the work order.
- All the contacts associated with the merged account are now associated with the remaining account. So if the work order had a contact from the merged account, that contact is still associated with the work order.

**Note:**

- You must select **All functional areas** as the merge scope when setting up Customer Hub using the Manage Customer Data Management Options task. It's necessary to select this merge scope for the work order objects to be included in the scope.
- If you have defined an Application Composer rule that doesn't permit the account on a work order to be updated, then the accounts don't merge.

#### Related Topics

- [Survivorship Rules](#)
- [How do I merge duplicate records?](#)
- [Automerge](#)

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- If you have defined an Application Composer rule that doesn't permit the account on a work order to be updated, then the accounts don't merge.

#### Related Topics

- [Survivorship Rules](#)
- [How do I merge duplicate records?](#)
- [Automerge](#)

# 25 Set Up Additional Service Features

## Installed Base Assets

### How do I enable Installed Base Assets for service requests and work orders?

If you use Installed Base Assets for processes such as Supply Chain, Service Logistics, Service Contracts, or IOT, you can opt-in to use the same asset model for SRs and Work Orders. Use Application Composer to add the Installed Base Asset fields to the SR and Work Order pages.

### Enable Installed Base Assets

To opt in, do the following:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Change Feature Opt in link
2. Click the **Features** icon for Service in the first row.
3. Select Enable for **Manage Assets Using Common Asset Model**.
4. Click **Done**.
5. Click Done on the Opt In page.

**Note:** This is a global setting where you choose whether to use Installed Base Assets or the default Asset object for the Service Request and Work Order process. You can't use both asset objects in Fusion Service so you should carefully consider the impact if you have requirements to support asset management outside these processes. For example, Installed Base Asset doesn't currently support sales processes in Fusion Sales and Service and has limited support for extensibility.

## FAQs About Installed Base Assets

### Frequently Asked Questions (FAQs) for Installed Base Assets

This section contains some frequently asked questions (FAQs) when setting up and maintaining installed base assets. Scroll or search to find answers to common questions.

### Can I add Installed Base Asset as a subtab on the SR?

IB Asset is a single choice field on SR. It's not a subtab where you can associate many assets.

## Where's the Installed Base Asset object in Application Composer?

The installed base asset object in Application Composer is called Installed Base Asset. It's located under the SCM/ERP drop-down list (not CRM).

## How can I query Installed Base Asset-related fields in and SR from a particular object?

A few Installed Base asset fields are already part of the SR object.

There's a picker to choose which asset is the subject of the SR. It's possible to create formula fields and use groovy to access other fields from the IB Asset object.

# Case Management

## What is Case Management?

Case Management is a professional and collaborative process that provides the ability to manage long running processes to meet an organization's needs related to managing escalations, investigations, problems, applications, and other issues.

For example, a case is created whenever an application for specific services is requested by an applicant. Applications are typically assessed for eligibility of services, and upon successful assessment, a Case is created and managed. Unlike service requests, cases typically stretch over a long period of time, involve multiple parties as well as multiple documents and messages to deliver a solution or service, and often require complex business processes for successful completion.

The overall case management process is iterative, non-linear, and cyclical, with its phases being revisited as necessary, until the intended outcome is achieved. A Case can be different than a service request, as Cases are often employee, client, citizen, or student focused, and the outcome is often difficult to predict or measure. A case can be a process that ties together one or more services (benefits) delivered by an institution to a person (individual), group (household), or organization (customer account) to fulfill the specific intent and needs of the recipient.

## Opt Out of Case Management

Case Management comes ready to use with Fusion Service. If you don't wish to use Case Management, you can disable it.

### To Disable the Case Feature

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Change Feature Opt in link
2. Click the **Features** icon for the Service offering.

3. Select Disable for **Case**.

## Service Request Parts Ordering for Service Oracle Service Logistics Cloud Users

### Give Users Access to Create Parts Orders Using Service Requests

Service Logistics users access the Fusion Service UIs to order parts to complete a service request or work order. See related topic for instructions on granting users access to the Service Request and Work Order UIs so that they can create parts orders.

To view the table and column details which carry part details from the SR page, see the related link for the Parts Requirements Lines table.

#### *Related Topics*

- [Give Users Access to Fusion Service UIs](#)
- [Parts Requirement Lines](#)

### Configure the Cancel and Delete Behavior for Service Requests with Parts Orders

If a service request is canceled or deleted before the parts on an order are sent, it's likely that the parts order should also be canceled to avoid unnecessary costs.

With the Manage Service Request Parts Order Disposition Options task, you can configure what happens when a user attempts to delete a service request that has parts on order. You can also specify which service request status values indicate the cancellation of a service request. The application prompts the user to confirm what they want to do before the status can be changed.

To configure the delete and cancel processing behavior:

In the Setup and Maintenance work area, go to the following:

- Offering: Service
- Functional Area: Service Request
- Task: Manage Service Request Parts Order Disposition Options

To configure the processing for if a user tries to delete an order with parts:

1. Click the **Execute part order delete processing** check box if you want the application to check to see if there are parts orders when the user tries to delete a service request.

If you do not check this box, a service request with parts orders is not affected if it's deleted. If you check this box, service requests that contain parts orders will be evaluated based on whether the next check box is checked.

2. Click the **Allow deletion of service request with noncancelable part orders** check box if you want to allow users to delete a service request even if there are parts orders that have already been sent to the customer.

If parts order delete processing is turned on, but this box is not checked, users can't delete a service request that has parts orders, unless all the parts orders are canceled. If this box is checked, users can delete the service request anyway. In this case, the application will also try to cancel the remaining parts orders that can still be canceled.

To configure the processing for when a user tries to cancel an order with parts:

Use the Service Request Resolved Status Type region of the page configure how the application responds when a user tries to set certain status values on a service request with parts orders that have already been sent to the customer.

Status values with a resolution type of Resolved suggest the assistance is no longer required. Some status values also might indicate that a problem was fixed. In cases where parts were ordered to help the customer fix the issue, but the status value suggests the customer might not need the parts anymore, you can configure the cancel processing to determine how the application responds.

1. Check the check box in the Cancel Part Order Process column for the status you want the application to run cancel processing. This means if the user tries to cancel an SR that's in that status, the application checks to see if there are any parts on the SR that have already been sent out. The user is then notified so they can decide if want to continue.

## Copy Maps

### Create a Copy Map

Copy maps enable you to create objects by copying existing object entities. You use the copy maps feature to map child objects and attributes in the source object (From object) to objects and attributes in the object you're creating (To object).

To create a copy map:

1. Sign in as a user with Application Composer access and verify that you have an active sandbox.
2. Access Application Composer by selecting **Application Composer** from the **Navigator** menu, under the **Configuration** category.
3. Go to **Advanced Setup**, and select **Copy Maps**.
4. Under the Copy Service Request section, select one of the following options:
  - o Copy Service Request Map
  - o Standard Copy Service Request Map
5. If you select **Standard Copy Service Request Map**, a read-only page comes up where the attribute mapping, application module mapping, and entity mapping sections are already mapped.
6. If you select **Copy Service Request Map**, you can modify the attribute mapping, application module mapping, and entity mapping sections.
7. The **Attribute Mapping** section contains all the OOTB attributes that are copied automatically. In this map, you can add the following types of fields to be copied:
  - o other standard/OOTB fields,
  - o custom fields, and

- o fields from other objects.

In the **Application Module Mappings** section, enter the field you want to copy. You enter the following information about the mapping as outlined in this table:

Field	Description
Name	Enter a name for the copy map. The name is displayed in the Copy Maps window. You can use the name to locate and search for copy maps that you want to edit or delete.
Map Group	Select the required mapping group for the new copy map from the drop-down list.
To	Select the application module that you're copying to. For example, if you're copying leads to opportunities, then select the application module that includes leads.
From	Select the attribute or field name that you're copying from. For example, if you're copying responses to leads, then select the application module that includes responses.

8. In the **Entity Mappings** section, add a record for each view object that you're copying by completing these fields:

Field	Description
To	Select the new object that you're copying to.
From	Select the existing view object that you're copying from.
Query Type	Select one of the three query types: Unique Identifier, Join, or All Records. If you select All Records, then don't enter any information in the remaining fields.
Query Attribute	If you selected either Unique Identifier or Join in the Query Type field, then select an attribute to use during runtime. The attribute is used to filter the records that are copied to the new object. For example, if you select LeadId, then during runtime, only the records matching the Lead ID passed to the copy map engine are copied.
Joined View Object and Joined Attribute	If you selected Join in the <b>Query Type</b> field, then use these two fields to specify: <ul style="list-style-type: none"> <li>o The view object to which this object is joined</li> <li>o The attribute used as the basis of the join</li> </ul>

9. Select each line in the **Entity Mappings** section, and add or update records to the **Attribute Mappings** section for each of the attributes by completing these fields:

Field	Description
To	Select the attribute to which the selected entity is copied.
Referenced View Object	If this attribute is a foreign key, select the view object joined by this foreign key. The application generates new foreign keys that keep the reference intact.
Primary Key	If this attribute is a primary key, select this check box. Instead of copying the value in the From object, the application generates a unique value for this key field in each record in the To object.
From	Select the attribute from which the selected entity is copied.
From Expression	Optionally, you can enter a Groovy expression to change the value in this attribute. For example, you want to change the value of the From object to some new value in the attribute of the To object. You can also enter a constant to fill this attribute with a constant value in every record of the To object.

10. Click **Save and Close**.

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## Modify Service Request Pages

You can modify the pages by duplicating the standard layout and updating the changes you want. Here's how you modify the SR page layouts.

1. Sign in as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.
3. After you activate the sandbox, open **Application Composer**.
4. In Application Composer, select **CRM Cloud** from the **Application** drop-down list.
5. In the **Standard Objects** list, select **Service Request > Pages**.

The **Service Request: Pages** page contains sections for the different layouts available for modification. You can either use the provided standard layout, or duplicate the standard layout and modify the following:

- o **Landing Page Layouts:** The landing page layout contains sections to modify the SR summary table, the buttons and actions, and the fields for performing a mass update on the page. Click the edit icon to add, remove, or reorder the fields in each of these sections.
  - o **Create Page Layouts:** The create page layout contains sections for the **Create Service Request** page that the users see when they create a new SR. The fields that you define in this layout determine the information that the users are asked to enter when creating the SR. Click the Edit icon to add, remove, and reorder the fields and the buttons available on this form.
  - o **Details Page Layout:** The Details page layout is the screen that users see when they open an SR to view or edit details. On this layout, you can add, edit, and remove fields from three different regions: Spotlight Region, Subtabs region, and the Right Panel region.
    - **Subtabs Region:** In this region, you can add, edit, re-order, and remove Summary, Contacts, Team, Linked Articles, and Milestone details tabs, that are displayed as part of the **Edit Service Request** page. Click each subtab and select the edit icon to make changes to the fields. Not all tabs that are available are extensible. You can only rename the tabs that aren't extensible. You can also edit regions and field groups in this region.
    - **Spotlight Region:** The spotlight region is the summary of an SR that's displayed when the SR is opened for viewing or editing details. You can add, remove, and reorder the fields that you want to display on this header. You can also add the current milestone details to the Spotlight region to highlight the information. To add fields to the Spotlight Region, you must select the fields under the Available Fields panel, and move them over to the Selected Fields panel. To remove fields from the Spotlight Region, you must select the fields under the Selected Fields panel, and move them over to the Available Fields panel
    - **Right Panel:** In this panel, you can rename or hide the pre-built subtabs like Knowledge and SmartText. You can also integrate an external web application with an application by creating and embedding mashups. To do this, you must register the mashup content using **Application Composer > Mashup Content**, and enter the URL format and its parameters. After this, you can embed the mashup content in a Details Page layout, either within a subtab or in the Right panel.
  - o **HR Help Desk Service Request:** This layout displays to the HR help desk agents and managers. You can add, remove, and reorder the fields that you want to display for the summary table, buttons, and actions.
6. After you make the required updates, save the layout.

7. To use this layout to view the SRs, select **Active** to make the layout active for users.

You can also configure the service request severity color codes to display on the Service Requests Lists page. For more information about embedding a registered mashup in the right panel, see "Embedding a Registered Mashup in the Right Panel."

## How You Add Actions and Links

You can add actions, such as buttons and menu items, to detail pages, list pages, and so on. You can also create special fields, rendered as links, that are displayed with other fields throughout the application.

You can base an action on a script (a Groovy method that's defined on the object) or on a URL defined by a script. After you create an action, it can be exposed as a button or an option on the Actions menu. A button can perform an action or navigate the user to another page in the runtime application, or to another Web site. For example, you might want to include a button on a summary table, which users can click at runtime to create a new type of record from a selected row, such as escalating an existing "trouble ticket" to a more severe "case" that can be managed separately.

After you create a link, it can be selected as a field for display at runtime. For example, you might want to provide a static link from an overview page to a corporate Web site.

## Edit Actions and Links

You add actions or links in two steps:

1. Define an action or link for an object.
2. Use Application Composer's work area configuration pages to add that action or link to a user interface page, such as a list page or details page.

You can also manage the Actions menu by hiding or showing menu items, rearranging the action groupings or display sequence, and managing the toolbar by hiding or showing icons and buttons. You can also configure the Actions menu and buttons in Create and Edit subtabs.

To define an action or link for an object::

1. Sign in as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.
3. After you activate the sandbox, open Application Composer.
4. In the Application Composer, select **CRM Cloud** from the Applications drop-down list.
5. On the main Overview page in Application composer, select a standard or custom object in the object tree..
6. Select the Actions and Links node.
7. In the Create Action or Link page, enter a descriptive name in the Display Label field.
8. In the Type field, select either Action or Link.
9. In the Source field, select either Script or URL.
10. In the Script region click the New icon to build your script.
  - o If the source is a URL, you can enter a static URL enclosed in double quotation marks. Or, you can define the URL by using the expression builder, which provides access to this object's fields to assist you in constructing the URL. .

If this object has a parent or relationship with a source object, then optionally change the context to access another object's fields for URL definition. Any new functions that you create will be added to the Method Name choice list.

If functions were already created for the object, then you can select one of them from the Method Name choice list. Object functions that are created elsewhere through other flows, such as server scripts, can also be used here. To switch the context to the object's parent or related source object, for access to the object's fields for the URL definition, check the Select alternative context check box

- If the source is a script, you can either select a predefined object function from the Method Name choice list, or create a new object function using the expression builder. Any new functions that you create will be added to the Method Name choice list.

If functions were already created for the object, then you can select one of them from the Method Name choice list. Object functions that are created elsewhere through other flows, such as server scripts, can also be used here.

When creating custom actions based on a script for top-level custom objects, you can specify how you would like the action to conclude at runtime, after the script completes:

- Save the record and return to the previous page (**save and close**)- Select this option to save the record and close the page.
- Save and edit the record (**save and continue**)- Select this option to save and continue working.
- Do not save the record (**run the script only**)- Select this option to perform the action but don't save the record, and run the script only.

**Note:** Use the "Do not save the record" option so that the custom action is available and the user can select the action in the UI pages. If you select the first two options, the user can't select the action button.

Points to consider when defining actions:

- If you define a custom action and expose it on a list, ensure that you include a check for active record row, and that the UI supports users selecting any record as the active row before invoking the custom action.
- Do not create custom buttons to populate the mandatory or required fields on the UI. End users must enter the values in the mandatory fields manually.

**11.** When finished, click **Save and Close**.

After you save actions or links, you can expose them on UI pages by configuring Application Composer options available in the Edit Summary Table page in the Pages node of an object. When displaying a link, you select it just as you select to display standard or custom fields. This is because, at runtime, the UI displays the URL link as if it's a field in a table.

*Related Topics*

- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)
- [Publish Sandboxes](#)

## Expose Additional Fields for Service Request Mass Update

You can add the additional out-of-the-box field, Critical, that doesn't appear, by default, in the Service Request form. You can also add custom fields.

1. Open Application Composer, and expand the Standard Objects node, and then expand the **Service Request** object.
2. Click Pages, and then in the Landing Page Layouts work area, select Standard Layout, then select **Duplicate** from the **Actions** menu.
3. Click the **Edit** icon for the **Service Request** list.
4. In the Landing Page Layout, locate the **Configure Mass Update Fields** area, and move the fields you want to expose from the Available Fields list to the Selected Fields list.
5. Click **Save and Close**.

## Expose the Asset Number Field in the Service Request Form

If you need the Asset field to appear in your Service Request form, you now must add it in Application Composer.

1. Sign in as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use the existing one and set it to active.
3. After you activate the sandbox, open **Application Composer**.
4. Expand the Standard Objects node, and then expand the **Service Request** object.
5. Click Pages, and then in the Landing Page Layouts work area, select Standard Layout, then select **Duplicate** from the **Actions** menu.
6. Click the **Edit** icon for the **Service Request** list.
7. In the Configure Detail Form area, move Asset Number from the Available Fields list to the Selected Fields list.
8. Click **Save and Close**.
9. Verify that the field was added.

## Enable Service Request Tagging

### Enable Tagging

The Tag field isn't displayed automatically on some pages, such as for service requests (SRs). The Tag field is predefined, but it's not added to any of the predefined standard layouts.

Let's say you want the **Tag** field to be available to all users. Then you must add this field to your administrator-defined layout and publish it.

If tags are enabled and exposed, users can create their own tags. Tags aren't striped by business unit. So all tags are visible to all users.

Let's look at an example of how to enable tags so that the **Tag** field is displayed when creating or editing SRs:

1. Modify the corresponding page layout in Application Composer by adding the **Tag** field to the Service Request Summary page.

For more information about modifying page layouts, see the Extend Application Pages chapter in this guide.

2. Publish the sandbox.

Tags are now enabled and the **Tag** field is available. Anyone who has the Edit Service Request privilege can add a tag.

## Create Predefined Tags

As an administrator, you have the option to create predefined tags that are visible to the users. Users can also create tags at runtime to suit their needs.

Again, let's look at a service request example. Based on common requirements, you can create tags such as performance and setup. You can then send a notification to the agents suggesting that they use these predefined tags. For example, for service requests related to performance, use the `performance` tag.

To create an administrator-defined tag:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Productivity and Tools
  - o Task: Manage Tags

The Manage Tags page is displayed, and it shows the list of existing administrator-defined tags and user-defined tags.

2. Click **Create**.
3. In the **Create Tag** dialog box, specify a tag name in the **Tag** field.
4. Click **Save and Close**.

The new tag appears on the Manage Tags page.

## Import and Export Tags

You can export the administrator-defined tags from your test environment to your production environment by using the import-export feature in Functional Setup Manager. User-defined tags can't be imported and exported. Many tags may be created for testing in the test environment, but it's not required to migrate all the tags to production.

For more information about importing and exporting setup data, see the *Oracle Applications Cloud Using Functional Setup Manager* guide.

If you export your setup data by using an Implementation Project, then the administrator-defined tags are exported with the rest of the tasks in the Implementation Project in the following cases:

- Your Implementation Project includes the **Productivity Tools** Functional Area.
- You explicitly include the **Manage Tags** task.

## Delete Tags

You can delete tags that are no longer required. For example, tags with typos. When you delete a tag, it's removed from all the associated records and is then deleted.

Let's look at an example of deleting a tag for service requests:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Service
  - o Functional Area: Productivity Tools
  - o Task: Manage Tags

The Manage Tags page is displayed, and it shows the list of existing administrator-defined tags and user-defined tags.

2. Select the row with the tag that you want to delete.
3. Click **Delete**.

A message is displayed, stating that all the references to the tag will be removed.

4. Click **Delete** to delete the tag.

## Assign the Create Tag Privilege for Creating Service Request Tags

A user must have the Create Tag privilege to create a tag when they're on the SR page. The Create Tag privilege is provided to all the predefined service roles by default. But as an administrator, you can remove this privilege from any role. So you have more control over who can create tags. A user without the Create Tag privilege can't create tags, but he can associate existing tags with the SR as long as he can create or edit an SR.

**Note:** If you're using the predefined service roles such as Customer Service Representative and Customer Service Manager, then you don't need to do anything. These roles already have the Create Tag privilege.

But if you have custom roles for your service users, then you must do one of the following:

- If you don't want your users to create their own tags while editing an SR and instead associate only the existing tags to the SR, then you don't need to make any changes.
- If you want to let your users create their own tags when editing an SR, then you can assign the Create Tag privilege to them.

To assign the Create Tag privilege to a role:

1. Navigate to the Security Console.
2. Find the custom role equivalent to the predefined Service Request Troubleshooter duty role.

This duty role would typically be associated with your custom Customer Service Representative job role.

3. Edit the role and navigate to the Function Security Policies section of the wizard.

For more information, see the Edit Job or Abstract Roles topic in the Oracle Fusion Securing Fusion Sales and Fusion Service guide.

4. Click **Add Function Security Policy**.
5. Search for the Create Tag privilege.
6. Add the Create Tag privilege to the role.

## 7. Submit your changes.

**Note:** If you have a custom version of the Service Request Power User duty role, then you can follow the same steps as above to assign the Create Tag privilege to that role. This duty role would typically be associated with your custom Customer Service Manager job role.

### Related Topics

- [Modify Application Pages Using Application Composer](#)
- [Overview of Setup Data Export and Import](#)
- [Export Setup Data Using Implementation Project](#)
- [Set Up an Offering with Scope](#)
- [Edit Job or Abstract Roles](#)

# Set Up Service Requests for Partners

You can use Service Requests (SR) to capture and resolve issues reported by partner accounts.

Instead of associating customer accounts and customer contacts to the SR, you can associate partner accounts and partner contacts. Partner users or partner contacts can use the application to submit service requests and view responses by the person that owns the SR.

**Note:** There's only one global service product catalog and one global category hierarchy in Service. Whether they're associated with customer accounts or partner accounts, all SRs display the same hierarchy of products and categories. Partners can create and interchange an SR through the application user interface, the SR APIs, and the inbound and outbound emails. Partners can't use the CTI framework or the chat channel.

You can let partners create service requests by modifying the page layouts for the service request object. The layout must be modified according to the privileges given to the external partner contact and the internal resources that access the SR.

Users that can access the partners SR can be broadly classified as internal and external resources. External resources are partner contacts that create, submit, and view an SR for the partner that they represent. Internal resources own and work on the SRs for one or more partners that they're assigned to. Oracle recommends that you provide access to partner service requests using the following standard roles. However, you can grant access to other standard and user-defined roles that you create, depending on your requirements.

- *Partner sales representative* - An employee from a partner company that can request support on issues. In the Partner Management work area, these users are also represented as partner contacts.
- *Channel account manager (CAM)* - Internal resource responsible for a set of partner accounts. You can grant access to this role if you want them to respond to the partner service requests in addition to their other duties.
- *CRM administrator* - Configures the application, such as assignment rules, service product catalog, queues, layouts, extensibility changes, and so on.

When a partner account is associated with the SR, the **Primary Contact** field is always treated as a partner contact. The primary contact field enables users to search and select only from the partner contacts associated with the partner account that's selected. You can also modify the SR list view for the partner contact roles, to include columns specific to the partner service requests.

## Modifying the Service Request Page Layout for External Resources

External resource in partner contacts must be provided limited access to creating and editing a partner SR. The following list describes the recommended fields that you must enable and disable in the SR layout for external resources.

- Remove internal only fields such as **Queue, Assigned To**.
- Add Groovy to make the **Partner Account, Status** and **Channel Type** read-only.
- Remove the **Attachment +** icon. Partner users can only upload and view attachments through a specific SR message.
- Enable only the **Summary** and **Message** subtabs.
- (Optional) Allow the user to set the severity when creating an SR. However, the user can't change this when editing the SR.
- Enable the **Milestones** tab.

In addition to modifying the SR layout page, remove the **Service Request** action in the **Contacts** page layout using the application composer.

## Modifying the Service Request Page Layout for Internal Resources

Internal resources are resources that work on the partner SR. The following list describes the recommended fields that you must add to the SR layout for internal resources.

- Add **Partner Account** field to the SR page layout. Since the primary contacts are chosen based on the partner account selected, display the **Partner Account** field first, before the **Primary Contact** field.
- (Optional) Remove the **Account** field from the layout to avoid confusing the user. For partner service requests, the **Account** field is only for reference information.

In addition to creating page layouts for the partner SR work area, you can also expose the **Service Request** subtab on the Partner 360 work area.

## Assigning Partner Service Requests to Queues

If you have a different set of resources responding to customer and partner service requests, you can set up separate queues to address the partner SRs.

To assign a partner SR to a queue, do the following:

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Service
  - Functional Area: Communication Channels
  - Task: Manage Service Request Assignment Objects
2. In the **Manage Service Request Assignment Objects** page, select **Service Request** and the select **Attributes**.
3. In the **Attributes** tab, add the **Partner Account** field and save the changes.
4. In **Setup and Maintenance > Communication Channels** select the task **Manage Service Request Assignment Rules**.
5. Add rules to ensure that when the **Partner Account** field is populated, the service request must be assigned to a different set of queues. For more information about assigning service requests to queues, see Define Service Request Assignment Rules.

### Related Topics

- [How do I update existing setup data?](#)

## Rename or Hide Pre-Built Tabs in the Right Panel

You can rename or hide the pre-built subtabs like Knowledge and SmartText in the Right Panel by duplicating the standard layout and updating the changes you want. Here's how you rename or hide the subtabs.

1. Sign in as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.
3. After you activate the sandbox, from the Navigation panel, go to **Application Composer**.
4. In the Application Composer, select **Service** from the **Applications** drop-down list.
5. In the **Standard Objects** list, select **Service Request > Pages**.
6. On the **Application Pages** tab, in the **Details Page** Layouts, duplicate the standard layout to create a new layout to edit, or edit another existing layout.
7. To hide the subtab, follow the given steps:
  - a. In the Right Panel, click the **Hide, Show, or Reorder Subtabs** icon.  
The **Configure Subtabs** page appears.
  - b. Select the subtabs that you want to hide and move them from the **Selected Subtabs** list to the **Available Tabs** list.  
To make the subtabs available, move the subtab from the **Available Tabs** list to the **Selected Subtabs** list.
  - c. Click **OK**.  
The subtab gets hidden in the **Right Panel** region.
8. To rename a subtab, follow the given steps:
  - a. Select the subtab you want to rename.
  - b. Click the **Edit** icon next to the field, SmartText.
  - c. In the **Rename Subtab** dialog box that comes up, enter the new name of the subtab.
  - d. Click **OK**.
9. Click **Done**.

## Embed a Registered Mashup in the Right Panel

You can modify the pages for Fusion Service by duplicating the standard layout and updating the changes you want. The following procedure describes how to modify the SR page layouts.

1. Sign in to Fusion Service as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.

3. After you activate the sandbox, from the Navigation panel, go to **Application Composer**.
4. In the Application Composer, select **Service** from the **Applications** drop-down list.
5. In the **Standard Objects** list, select **Service Request > Pages**.
6. On the **Application Pages** tab, in the **Details Page** Layouts, duplicate the standard layout to create a new layout to edit, or edit another existing layout.
7. In the Right Panel, click the **Add** icon.  
The **Mashup Catalog** page appears.
8. Select the mashup that you want to embed into your application.
9. To insert the selected mashup into the page, click **Insert**. The Web Application page appears with the configured URL definition and the URL parameters.
10. In the **Display Label** field, enter the name that you want to appear in the tab label.
11. To change the default icon, select the **Change** icon link and select an icon from the list of icons presented.
12. Optionally, use the **Value** drop-down list to specify page values for each of the web application's URL parameters configured while registering it. These parameters are appended to the web application's URL as key-value pairs.
13. Click **Next**. The **Additional Layouts** page appears.
14. Select any other layout that you want to embed the mashup into by moving it from the **Available Layouts** list to the **Selected Layouts** list.
15. Click **Save and Close**.  
The embedded mashup appears in a tab in the **Right Panel** region.

## View the Mashup Content

After you have embedded the mashup in the right panel, you can view the content of an embedded mashup.

To view the embedded mashup, follow the given steps:

1. From the home page or the navigator menu, select the application page that contains the embedded mashup. For example, Service Requests.
2. On the landing page, click the Service Request from the list.
3. Expand the right panel.
4. Click the tab where the mashup is embedded and view the application.

## Extend the Spotlight Region

The Spotlight region appears on the Service Request workspace. When a user drills down into a service request, a detail of the record appears in the Spotlight region. The Spotlight region persists no matter which tab the user clicks.

You can configure the following elements of the Spotlight region:

- Add or hide a field
- Rearrange the order in which fields appear in the UI
- Enable users to drill down on a field (if it's a dynamic list field)

**Note:** Any configuration changes you make to the Spotlight Region in releases prior to 18.10 won't be carried forward after you upgrade to 18.10. You will need to reapply those configuration changes in Application Composer after the 18.10 upgrade has been completed.

To configure the Spotlight region, do the following:

1. Sign in as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.
3. After you activate the sandbox, open Application Composer.
4. In the Application Composer, select **CRM Cloud** from the Applications drop-down list.
5. In the Standard Objects list, select **Service Request**, and then **Pages**.
6. In the Details Page Layouts area, select the layout you want to configure.
7. In the Details Layout area, in the Spotlight Region area, click the **Edit** icon.
8. To add a field select a field name from the Available Fields area and move it to the Selected Fields area.

For a field to be able to be used as a drill down column, it must be a dynamic list field. All fields from the Selected Fields list that are of this type, will appear in the additional list indicating that the field will appear as a drill down column.

9. To hide a field, move the field from the Selected Fields area to the Available Fields area.
10. To reorder fields, select a field in the Selected fields area, and use the up or down arrow to adjust its order in the list.
11. When finished, click **Save and Close**.

## Extend Service Request Categories

You can define and add fields to the service request category object.

You can also write triggers on categories and set additional properties on a category to help implement configuration changes. For example, you can set a property that controls whether a category is visible to outside visitors on your Support website.

The following features will be addressed in a future release:

- Extensibility of the UI for managing categories
- Executing object workflow when a category is added or updated

To define and add fields to the category object:

1. Sign in as an administrator.
2. Click **Navigator > Configuration > Sandboxes**. You can either create a new sandbox, or use an existing one and set it to active.
3. After you activate the sandbox, from the Navigation panel, go to Application Composer.
4. In the Application Composer, select **CRM Cloud** from the **Application** drop-down list.
5. In the search box for Object name, type `categories` and click the search icon.
6. From the Standard Objects list, select **Category**.

**Note:** Select the first instance of Category. Also check whether the name displayed in the Object Information region is SrCategoryVO.

7. Expand the Category object and click **Fields**.
8. On the Fields page, in the Custom tab, click **Create** to add an administrator-defined field.
9. Complete the steps as required.

# Set Up Capturing of Additional Information About SR and SR Message Attachments

To capture additional information about the attachments uploaded or edited by users, you can use flexfields.

You can extend the Service Request (SR) Attachment and SR Message Attachment business objects to support flexfields. So users can provide additional information about the attachments when uploading them or editing them on the SR.

Here's an outline of the steps that you need to complete. Each of these steps is described in detail later in this topic.

1. Create a global segment if you want the flexfield to be visible in all the attachment categories.
2. Create a contextual segment if you want the flexfield to be visible in some of the attachment categories.
3. Deploy the flexfields so that they're visible to the users when uploading attachments to a service request or SR messages.

## Create a Global Segment

If you want the flexfield to be visible in all the attachment categories, you must create a global segment.

1. Sign in as an administrator or a setup user.
2. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
3. Search for and select the **Manage Descriptive Flexfields** task.
4. On the Manage Descriptive Flexfields page, type `FND_ATTACHED_DOCUMENTS` in the **Flexfield Code** field and click **Search**.

The Search Results area displays a search result with the name **Attached Documents DFF**.

5. Click **Edit** in the Search Results area.
6. On the Edit Descriptive Flexfield: Attached Documents DFF page, navigate to the Global Segments area.
7. Click **Create** to create a new global segment.
8. On the Create Segment page, fill in the appropriate fields.

**Note:** You may need to create a value set for your flexfield before creating the segment. To create a value set, use the **Manage Value Sets** task in **Setup and Maintenance**. For more information about value sets, see "Overview of Value Sets" in *Oracle Applications Cloud Configuring and Extending Applications*.

9. Click **Save and Close** on the Create Segment page.

You have created a global segment. You can see the newly created global segment name in the Global Segments area of the Edit Descriptive Flexfield: Attached Documents DFF page.

## Create a Contextual Segment

If you want the flexfield to be visible in some of the attachment categories, you must create a contextual segment.

1. Sign in as an administrator or a setup user.
2. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
3. Search for and select the **Manage Descriptive Flexfields** task.
4. On the Manage Descriptive Flexfields page, type `FND_ATTACHED_DOCUMENTS` in the **Flexfield Code** field and click **Search**.

The Search Results area displays a search result with the name **Attached Documents DFF**.

5. Click **Edit** in the Search Results area.
6. On the Edit Descriptive Flexfield: Attached Documents DFF page, click **Manage Contexts**.
7. On the Manage Contexts page, do one of the following:
  - o If you have already defined a context in the past, then search for that context.
  - o If you haven't defined a context in the past, click **Create** in the Search Results area to create a new context. On the Create Context page, fill in the appropriate fields to create a context and click **Save**.

**Note:**

- The Context Code must match the Attachment Category for which you're creating the new flexfield. Here are the two attachment categories that can be used for Service:
  - o Internal
    - Category Display Name: Internal
    - Category Code: SVC\_INTERNAL
  - o Miscellaneous
    - Category Display Name: Miscellaneous
    - Category Code: MISC
- So to create a flexfield for the attachments in the Miscellaneous category, you must set the Context Code to MISC. Similarly, the context code must be SVC\_INTERNAL if you're creating flexfields for the Internal category.

8. In the Context Sensitive Segments area, click **Create** to create the Context Sensitive Segment for the context.
9. On the Create Segment page, fill in the appropriate fields.

**Note:**

- o You may need to create a value set for your flexfield before creating the segment. To create a value set, use the **Manage Value Sets** task in **Setup and Maintenance**. For more information about value sets, see "Overview of Value Sets" in *Oracle Applications Cloud Configuring and Extending Applications*.
- o Ensure that the **Enabled** check box is selected for the Context Sensitive Segment.

10. Click **Save and Close** on the Create Segment page.

In the Context Sensitive Segment area of the Edit Context page, you can see the newly created context sensitive segment.

11. Click **Save and Close** on the Edit Context page.
12. Click **Save and Close** on the Manage Contexts page.

The Edit Descriptive Flexfield: Attached Documents DFF page is displayed.

13. In the Context Sensitive Segments area, from the **Context** drop-down list, select the context.

You can see the newly created context sensitive segment here as well.

14. Click **Save and Close**.
15. On the Manage Descriptive Flexfields page, click **Deploy Flexfield**.

**Note:** You can also deploy the flexfield later. You don't have to do it immediately. For more information, see the Deploy Flexfields section.

16. Click **Done**.

## Deploy the Flexfields

After you create the flexfields, you must deploy them. Only after they're deployed, the flexfields are visible to the users when uploading attachments to an SR or SR message.

1. Sign in as an administrator or a setup user.
2. Navigate to the **Setup and Maintenance** work area and open the **Tasks** panel tab.
3. Search for and select the **Manage Descriptive Flexfields** task.
4. On the Manage Descriptive Flexfields page, type `FND_ATTACHED_DOCUMENTS` in the **Flexfield Code** field and click **Search**.

The Search Results area displays a search result with the name **Attached Documents DFF**.

5. In the Search Results area, click **Deploy Flexfield** to deploy your newly created flexfields.
6. After they're deployed, click **OK** on the dialog.

**Note:** In the Search Results area, check the **Deployment Status** for the **Attached Documents DFF** row. If some of the newly created flexfields aren't deployed yet, the **Deployment Status** column shows an **Edited** icon. After you deploy all the newly created flexfields, the column shows an **Enabled** icon.

### Related Topics

- [Overview of Value Sets](#)

# 27 Integrate Oracle Internet of Things Service Monitoring for Connected Assets

## Overview of Oracle Internet of Things Service Monitoring for Connected Assets

Oracle Fusion Service and Oracle Internet of Things Service Monitoring for Connected Assets integration is designed to support customers who want to use the application to service customers, while using Internet of Things Service Monitoring for Connected Assets to monitor connected assets.

With the integration, assets connected to the internet periodically report information back to the Internet of Things Service Monitoring for Connected Assets application. This data is constantly monitored to detect problems indicating a failure has occurred or is imminent, and reports the issue to the service application for customer service follow-up. The synchronization is executed using Oracle Integration Cloud as the backbone for mapping and information exchange.

The integration supports the following:

- Creation of an Internet of Things Service Monitoring for Connected Assets incident when business rules detect that a failure has occurred or is imminent, which triggers creation of a service request.
- Closing the Internet of Things Service Monitoring for Connected Assets incident when the corresponding service request is resolved.
- Viewing information about the connected asset directly from the service request pages in the service application. This enables the service agent to retrieve both historical and the most current diagnostic information from the device, and take remote actions against the device (for example, restart), for troubleshooting and issue resolution.

For more information about Internet of Things Service Monitoring for Connected Assets, see [Related Topics](#).

*Related Topics*

## Integrate Engagement Cloud with Internet of Things Service Monitoring for Connected Assets

### How You Integrate the Applications

Here's a brief overview of the steps required to integrate Fusion Service with Internet of Things Service Monitoring for Connected Assets.

1. Create an integration user with privileges to perform the integration with Internet of Things Service Monitoring for Connected Assets.
2. Import the integration package from Oracle Marketplace.

3. Import SSL certificates for Fusion Service and Internet of Things Service Monitoring for Connected Assets, if the instances use self-signed certificates.
4. Activate connections to Fusion Service and Internet of Things Service Monitoring for Connected Assets.
5. Activate the integrations.
6. Enable the **Connected Asset** tab.
7. Import the Internet of Things connected assets.

For more information about configuration and integration steps for Internet of Things Service Monitoring for Connected Assets, see [Related Topics](#).

### *Related Topics*

## Create an Integration User

To integrate Fusion Service with Internet of Things Service Monitoring for Connected Assets, Oracle recommends that you create a user specifically for the integration. The integration user can call the Fusion Service service catalog or event catalog web services from Oracle Integration Cloud.

Here's how you create an integration user and the privileges you must provide to the role:

1. Sign in to the service application as an administrator.
2. Select **Navigator > My Team > Users and Roles**. The Search Person page is displayed.
3. Click **Create**. The Create User page is displayed.
4. Enter the following details for the new user:
  - o **Last Name:** Enter a last name for the user.
  - o **Email:** Enter a valid email ID for the user.
  - o **Hire Date:** Select today's date.
  - o **User Name:** Enter a user name for the user.
  - o **Person Type:** Select **Employee** from the drop-down list.
  - o **Legal Employer:** Select the legal employer from the list.
  - o **Business Unit:** Select a valid business unit.
  - o **Send user name and password:** Select this option.
  - o **User Log in:** Enter the user name that you created.
  - o **Password:** Enter the password for the user.
5. Save the user details. An email is sent to the address after the user has been created.
6. Check the user credentials sent in the email, sign in as the new user, and reset the password. After creating the user, sign in to the security console and provide the following roles to the integration user.
  - o SOA Operator  
The SOA Operator is a duty role and duty role can't be directly assigned to a login using security console. Create an enterprise role as a parent of SOA Operator and associate that enterprise role to the integration user.
  - o Customer Service Representative
  - o Resource

### Related Topics

- [Administering Oracle Integration: Add Users, Groups, and Roles for an Existing Instance](#)

## Import the Integration Package

You can set up the Integration Cloud integration package after you set up Fusion Service and create the integration user with the required privileges.

Before you start setting up Integration Cloud, go to the Oracle Marketplace ([https://cloudmarketplace.oracle.com/marketplace/en\\_US/homePage](https://cloudmarketplace.oracle.com/marketplace/en_US/homePage)) and search and download the Fusion Service to Internet of Things Service Monitoring for Connected Assets integration package. For more information about Oracle Marketplace, see the Related Topics link for Oracle Cloud Marketplace documentation.

The Integration Cloud integration package supports the following:

- Inbound: Create an SR in Fusion Service for an Internet of Things Service Monitoring for Connected Assets incident.
- Outbound: Respond to Internet of Things Service Monitoring for Connected Assets on the SR status.

## Import SSL Certificates

If the instances use self-signed certificates, you must import the SSL certificates before you configure and activate the connections.

To import SSL certificates for Fusion Service, see "Uploading an SSL Certificate" in the *Using the Oracle Sales Cloud Adapter* guide, available at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icssc/index.html>.

To import SSL certificates for Internet of Things Service Monitoring for Connected Assets, see "Uploading an SSL Certificate" in the *Using the REST Adapter* guide, available at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icsre/index.html>.

## Activate the Connections

After you download the package and import the SSL certificates, connect to Fusion Service using the sales adapter. The procedure for importing the adapter is described in the topic "Creating an Oracle Sales Cloud Adapter Connection", available at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icssc/index.html>.

## Configure the Connection to the Fusion Service Instance

Here's how you configure the connections to your Fusion Service instance:

1. Sign in to the Integration Cloud application using your integration user credentials.
2. Click the **Connections** icon on the home page.
3. Ensure that Oracle Fusion Service is listed on the connections page.
4. Click **Oracle Fusion Service** to view the details.

5. Click **Configure Connectivity** and enter the following information in the **Connection Properties** dialog box:
  - o OSC Service Catalog WSDL URL: Enter the service catalog URL on your Fusion Service instance.
  - o (Optional) OSC Event Catalog URL: Enter the event catalog URL on your Fusion Service instance.
6. Click **OK**.
7. Click **Configure Security** and enter the following information:
  - o **Security Policy:** Enter `Username Password Token`.
  - o **User name:** Enter the integration user name.
  - o **Password:** Enter the password for the integration user.
  - o **Confirm Password:** Reenter the password.
8. Click **OK**.
9. Click **Test** on the **Actions** bar of the service application page.
10. Ensure that the connection test is successful and the status meter shows 100%.
11. Click **OK**.

## Configure the Connection to the Internet of Things Service Monitoring for Connected Assets instance

Here's how you configure the connection to the Internet of Things Service Monitoring for Connected Assets instance:

1. Sign in to the Integration Cloud application using your integration user credentials.
2. Select **Connections** and then create a new connection for **Internet of Things Service Monitoring for Connected Assets**.
3. Select **Rest Adapter Connection**.
4. Click **Configure Connectivity** and enter the following information:
  - a. Connection Type: REST API base URL
  - b. Connection URL: Internet of Things Service Monitoring for Connected Assets instance base URL
5. Configure Security.
6. Save the configuration and test the connection.

## Activate the Integrations

After you configure your connections, you must then activate these integrations:

- **Autocreate SR for IoT Incident:** Creates or updates an SR in Fusion Service from an Internet of Things Service Monitoring for Connected Assets incident by mapping the object attributes of the two applications.
- **Push SR Status to IoT:** Updates the Internet of Things Service Monitoring for Connected Assets incident with the SR status from Fusion Service.

Here's how you activate the integrations:

1. Sign in to the Integration Cloud application using your integration user credentials.
2. Click the **Integrations** icon on the home page.
3. Search for each integration by its name.
4. Click the **Activate** button on each integration.

5. Select the **Enable detailed tracing** option, and click **Activate** on the confirmation dialog box.
6. Ensure that the flow has been activated successfully.
7. Repeat the previous steps for each integration.

## Enable the Connected Asset Tab

Here's how you enable the Connected Asset tab on the user interface.

1. Import the SSL certificate from the Internet of Things Service Monitoring for Connected Assets instance to the Fusion Service server.
2. Sign in to the service application as a setup or administrator user.
3. On the Setup and Maintenance page, search for the **Manage Service to IoT Cloud Integration** task.
4. Enter the Internet of Things Service Monitoring for Connected Assets instance URL, user name, and password.
5. Click **Verify Connection** to verify the connection.
6. Save the configuration details.
7. (Optional) To configure the roles and users who can perform the actions in the Actions and Attributes section of the Connected Asset tab of the Edit Service Request page, do the following:
  - a. In the **Service Roles to IoT Users Mapping** section, click **Create**.

A blank row is added in the table, which enables you to map the Service roles to the Internet of Things application users.
  - b. Enter the **Role, Priority, User Name, and Password**.

If a user has multiple roles assigned, then the role with the highest priority is considered. Lowest number indicates highest priority.
  - c. Click **Verify Connection** to verify the connection.
  - d. Click **Save**.

On the **Connected Asset** tab, the actions are displayed in the **Asset Actions** drop-down list based on the signed in user's role that's used to connect to the Internet of Things Service Monitoring for Connected Assets instance.

## Import Internet of Things Connected Assets

You can import Internet of Things connected assets from an external data source into Fusion Service using the Import and Export Management feature.



# 28 Implement Digital Customer Service

## Overview of Digital Customer Service

Oracle Digital Customer Service is an offering within Oracle Fusion Service that lets you provide your customer account users self-service access to their service requests and relevant knowledge articles through a web interface.

You can configure the Digital Customer Service application user interface to reflect a company brand. Using Oracle Visual Builder, you define root pages and styles, and include various UI components, depending on your business needs.

**Note:** To use Chat inlays in Oracle Fusion Service, you must configure some profile options. For more information, see "Configure Chat Inlay" in *Oracle Fusion Service Implementing Digital Customer Service*.

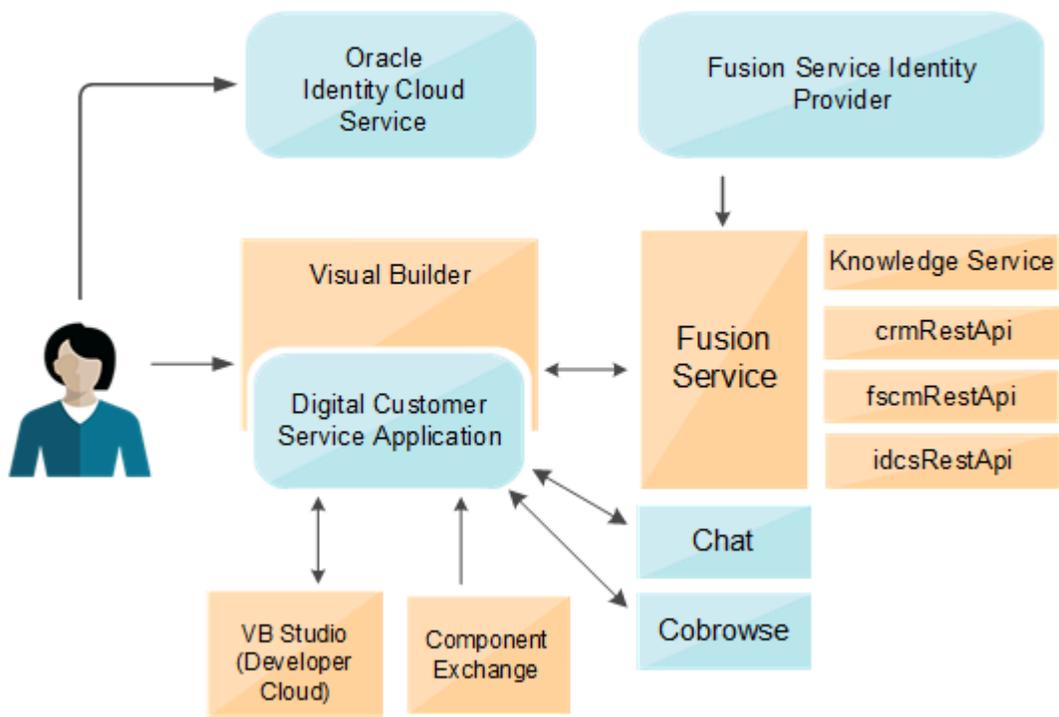
Once configured and deployed, your customers can self-serve through the application and search for knowledge articles to solve their problems. Additionally, your customers can register as Digital Customer Service self-service users so they can interact with your customer service representatives through service requests, work orders, by chatting, or by cobrowsing.

Here are general overviews of the design time and of the run time architecture. The Digital Customer Service application relies on the following APIs:

- **crmRestApi.** Provides the connection to Fusion Service.
- **fscmRestApi.** Provides the connection to the Oracle Application Cloud topology manager and functional setup.
- **idcsRestApi.** Provides the connection to Oracle Identity Cloud Service.
- **knowledge-service.** Provides the connection to knowledge content and search.
- **attachmentDocTrackerRestApi.** Used by the file attachment upload mechanism.
- **attachmentUploadRestApi.** Used by the file attachment upload mechanism.
- **kmRestApi.** Used to access the Knowledge Management v2 REST API
- **utilityRestApi.** Used by ODCS Knowledge Attachment download mechanism.

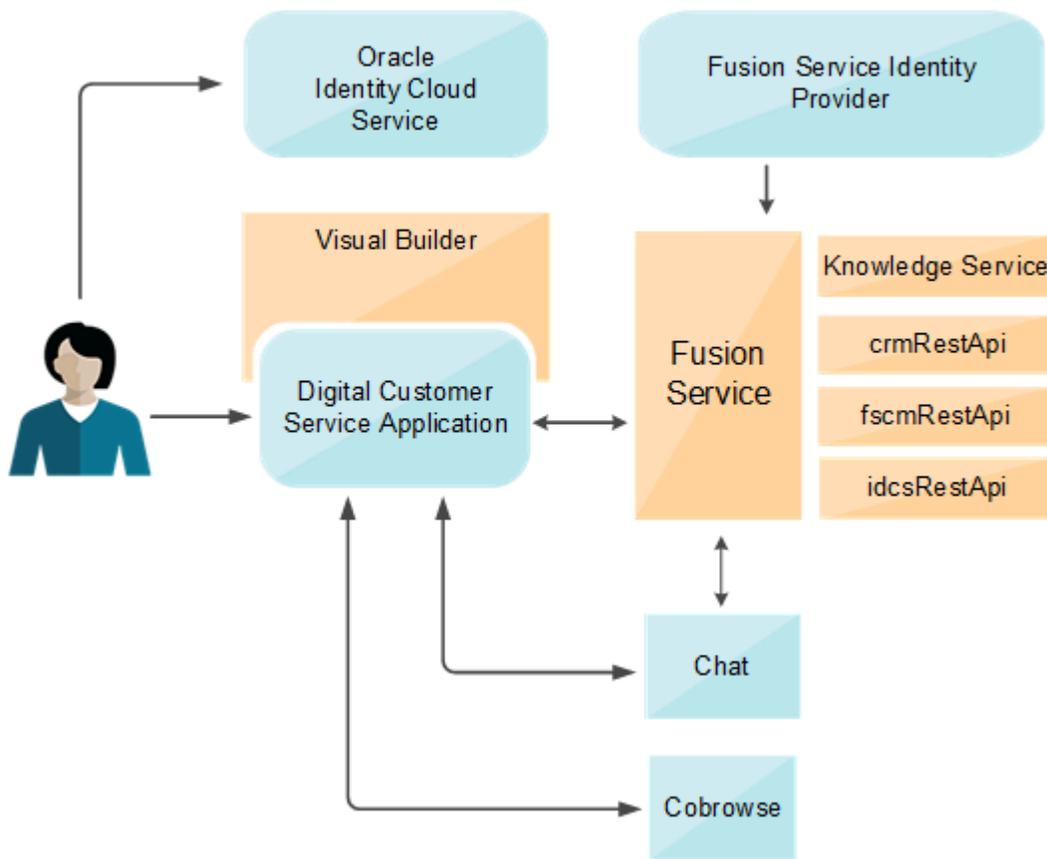
At design time, when developing a Digital Customer Service application, the developer logs into Oracle Identity Cloud Service to access the Visual Builder Designer and selects available application templates and components from the Component Exchange. The source code for the application can be maintained in a Git repository provided through the Visual Builder Studio (formerly known as Developer Cloud Service). The application is built to interact with various REST services from the associated Fusion Service instance. Here's a look at the design time architecture:

## Digital Customer Service Design Time Architecture



At run time, a self service user interacts with the Digital Customer Service application that's served up from the Visual Builder runtime environment, and can make requests for a self-service account that's created for the user on Oracle Identity Cloud Service. The user can then log in to Oracle Identity Cloud Service to get authenticated access to the application and use the full functionality of the application enabled by the various REST services from Fusion Service. The application may also expose Chat functionality and the ability to Cobrowse the customer's website with a customer service representative. Here's a look at the run time architecture:

## Digital Customer Service Run Time Architecture



## Digital Customer Service Terminology

Here's an overview of some Digital Customer Service terminology.

- **Oracle Visual Builder:** A cloud-based visual development tool that gives you easy access to data from any REST-based service. You can create and test responsive web applications and native mobile applications without installing any additional software. The visual designer lets you quickly lay out pages in your applications by dragging and dropping UI components, configuring their attributes and defining their behavior.
- **Root Page:** A page that contains the shell of your application including the header and footer and navigation components.
- **Service APIs:** The REST APIs that your application interacts with.
- **Digital Customer Service Application:** The application that you build using Oracle Visual Builder that acts as the web interface for your users. The Digital Customer Service application is built using the Digital Customer Service Reference Implementation template.
- **Digital Customer Service Users:** Your customer account users who have successfully registered to use the Digital Customer Service application as self-service users. These users can have a variety of roles.

- 
- **Digital Customer Service Templates:** The available templates you can select while creating your Digital Customer Service application. These application templates include component extensions, themes, and predefined pages and actions.
  - **Digital Customer Service Reference Implementation:** This template includes several pages and business components that enable a basic support experience including: knowledge search, service request creation and management, display of work orders, chat, and self-service user management capabilities for the account administrator. The account administrator manages all of the users and roles.

For more information on roles, refer to *Digital Customer Service Roles*.

#### *Related Topics*

- [Developing Applications with Oracle Visual Builder](#)

# 29 Integrate with Intelligent Advisor

## Oracle Intelligent Advisor

Oracle Intelligent Advisor helps service agents deliver enriched, personalized, and precise customer service.

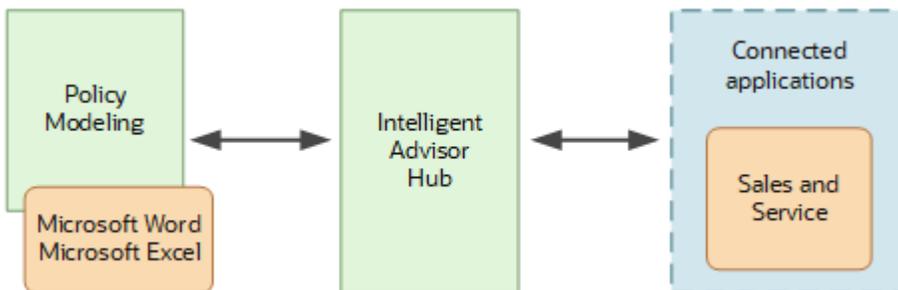
Intelligent Advisor can be connected to Fusion Sales and Fusion Service for use by agents. Intelligent Advisor interviews can be used for:

- Service requests across a range of industries
- Knowledge streaming by helping agents and contacts identify the most appropriate knowledge article or advice for their needs
- Any multi-page information gathering in Oracle Visual Builder
- Personalized self-service advice with Sales and Service

Using Intelligent Advisor within the Fusion Sales and Fusion Service interface:

- Agents must be logged in to use Intelligent Advisor interviews
- Specific Sales and Fusion Service objects can be created and updated

There's desktop modeling software for building interviews called Oracle Policy Modeling. The Intelligent Advisor Hub connects Policy Modeling to Fusion Sales and Fusion Service.



The steps to integrate Fusion Sales and Fusion Service with Intelligent Advisor are:

1. Create an Intelligent Advisor Hub.
2. Create a Fusion Sales and Fusion Service connection in Intelligent Advisor Hub.
3. Download and install Policy Modeling.
4. Create a project in Policy Modeling.
5. Connect the Policy Modeling project to Intelligent Advisor Hub.
6. Map data to and from Fusion Sales and Fusion Service in Policy Modeling.
7. Deploy and activate the Intelligent Advisor interview.
8. Embed the interview in a Fusion Sales and Fusion Service agent interface.

### Related Topics

- [Intelligent Advisor Documentation Library](#)

## Create a Fusion Sales and Fusion Service Connection in Intelligent Advisor

The next step is to create the Fusion Sales and Fusion Service web service connection in the Intelligent Advisor Hub that your team can use for new or existing interviews. This connection enables the two applications to work together and share information.

The installation administrator should have set up access for the Sales Administrator, or a similar role that administers Intelligent Advisor for your organization. Once you sign in, you create a connection to your Fusion Sales and Fusion Service web services to get access to data for creating or editing interviews.

### Related Topics

- [Create a connection to Oracle Sales and Fusion Service](#)

## Download and Install Policy Modeling

Once the connection to the web service is established, the next step is to download and install Policy Modeling.

Policy Modeling is the desktop tool modelers use to create and edit interviews, and to map data from Fusion Sales and Fusion Service to Intelligent Advisor.

Policy Modeling can be downloaded from Intelligent Advisor Hub.

### Related Topics

- [Install Policy Modeling](#)

## Connect the Policy Modeling Project to Intelligent Advisor Hub

The next step is to connect the Policy Modeling project to Intelligent Advisor Hub which provides access to the Fusion Sales and Fusion Service data model.

In other words, Intelligent Advisor receives data model information from the Intelligent Advisor Hub which in turn receives the data model information from Fusion Sales and Fusion Service. This enables Intelligent Advisor to load and save data to Fusion Sales and Fusion Service.

To connect your Policy Modeling project to Fusion Sales and Fusion Service via Intelligent Advisor Hub:

1. In Intelligent Advisor, connect the project to Intelligent Advisor Hub.
2. Choose the Fusion Sales and Fusion Service connection you created previously.

*Related Topics*

- [Specify the Intelligent Advisor Hub for a project](#)
- [Choose a connector framework web service connection for a project](#)

## Map Data to and from Fusion Sales and Fusion Service to Policy Modeling

Modelers can then map the data in the policy model Intelligent Advisor project to the appropriate tables objects and fields in Fusion Sales and Fusion Service.

Data mapping lets you load data into an Intelligent Advisor interview from Oracle Fusion Sales and Fusion Service, and to save outcomes, including creating new records, from the interview back to Fusion Sales and Fusion Service. The input mappings are used to load values, and the output mappings are used for updating and saving values.

*Related Topics*

- [Deploy a Policy Modeling project](#)
- [Activate a project](#)

## Configure Intelligent Advisor Interviews

### How do I create cases or SRs by interview?

You can have your users create service requests through an interview-style format using Oracle Intelligent Advisor. Using an interview to create service requests, can ensure service requests are created only after all critical questions are answered.

To create service requests by interview, you use Intelligent Advisor to create the interview, then Visual Builder Studio to make the interview available to your users.

**Note:** This feature requires a license for Oracle Intelligent Advisor.

