Oracle CX Service

Implementing B2B Service

22A
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Get Help in the Applications
Use help icons 📣 to access help in the application. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons.

Get Support
You can get support at My Oracle Support. For accessible support, visit Oracle Accessibility Learning and Support.

Get Training
Increase your knowledge of Oracle Cloud by taking courses at Oracle University.

Join Our Community
Use Cloud Customer Connect to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, and watch events.

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For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program. Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

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Thanks for helping us improve our user assistance!
1 About This Guide

Audience and Scope

This guide is intended for you if you’re responsible for implementing Oracle B2B Service.

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

To set up and work with the additional features of Oracle CX 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.

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<tr>
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<th>Description</th>
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<td>Contains information to help service managers, service personnel, and other service end users to perform day-to-day business tasks using Oracle B2B Service.</td>
</tr>
<tr>
<td>Oracle CX Service Administering Knowledge Management</td>
<td>Describes how administrators can perform knowledge management maintenance and ongoing operations tasks.</td>
</tr>
<tr>
<td>Oracle CX Service Integrating B2B Service with Oracle Field Service</td>
<td>Outlines the implementation and configuration steps required to integrate, create, and update processes on service work orders in Oracle B2B Service with activities in Oracle Field Service.</td>
</tr>
<tr>
<td>Oracle CX Sales Getting Started with Your Sales Implementation</td>
<td>Describes your initial Oracle CX Sales implementation procedures, based on a simple sales-force-automation use case.</td>
</tr>
<tr>
<td>Oracle CX Implementing Customer Data Management for CX Sales and B2B Service</td>
<td>Contains information to help implementors define the setup for managing customer information and the configuration for customer hub deployment.</td>
</tr>
<tr>
<td>Oracle CX Sales Implementing Enterprise Contracts</td>
<td>Contains conceptual information and procedures needed to implement the contract management features of Oracle CX Sales.</td>
</tr>
<tr>
<td>Oracle CX Sales Implementing Sales</td>
<td>Contains conceptual information and procedures needed to implement components and features of Oracle CX Sales.</td>
</tr>
<tr>
<td>Oracle CX Understanding Import and Export Management for CX Sales and B2B Service</td>
<td>Contains information to help those charged with exporting and importing object data.</td>
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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 B2B 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.

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Description</th>
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<tr>
<td>Service Request</td>
<td>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.</td>
</tr>
<tr>
<td>Service Catalog</td>
<td>Manage the product hierarchy used for categorizing the product of a service request.</td>
</tr>
<tr>
<td>Communication Channels</td>
<td>Manage the channels you use to communicate with customers, configure each channel, and manage the Omnichannel toolbar and assignment rules.</td>
</tr>
<tr>
<td>Digital Customer Service</td>
<td>Manage profile options and self-service authentication, configure user and job role setup, configure role synchronization, and view synchronization reports.</td>
</tr>
<tr>
<td>Service Entitlements</td>
<td>Manage the configuration of milestones tracked for service requests.</td>
</tr>
<tr>
<td>Work Order</td>
<td>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.</td>
</tr>
<tr>
<td>Productivity Tools</td>
<td>Manage settings for the tools that make agents more productive, including global search, collaboration, standard text, and keyboard shortcuts.</td>
</tr>
<tr>
<td>Functional Area</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Knowledge Management</td>
<td>Enable knowledge management features, set up locales and users, and create and manage the knowledge base for authors, agents, and external users.</td>
</tr>
<tr>
<td>Action Plans</td>
<td>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.</td>
</tr>
<tr>
<td>Business Units</td>
<td>Set profile options to enable the multi-BU functionality, define and add internal resource organizations, create business units, and BUs associated with resource organizations.</td>
</tr>
</tbody>
</table>

Related Topics

- Plan Your Implementation
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**
- Overview of 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:

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>Profile Option Setting Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>User preferences</td>
<td>Set preferences at the user level</td>
</tr>
<tr>
<td>Installation information</td>
<td>Identify the location of a portal</td>
</tr>
<tr>
<td>Configuration choices</td>
<td>Change UI skins and actions</td>
</tr>
<tr>
<td>Processing options</td>
<td>Determine how much information to log</td>
</tr>
</tbody>
</table>
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. User: This level affects only the current user. It has the highest precedence, over Site and Product.
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. 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.

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.

<table>
<thead>
<tr>
<th>Level</th>
<th>Priority</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>Lowest</td>
<td>Currency for a site is set to Euros.</td>
</tr>
<tr>
<td>Product</td>
<td>Supersedes Site</td>
<td>Currency for the product or set of products is set to UK pound sterling.</td>
</tr>
<tr>
<td>User</td>
<td>Highest, supersedes Product</td>
<td>Currency for a user is set to US dollars.</td>
</tr>
</tbody>
</table>

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.

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

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
Modify Service Request 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
- Resolved
- Waiting
- 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 service request lookups:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
Profile Options, Lookups, and Scheduled Processes for Service Requests

2. 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

- Update Existing Setup Data

Modify Channel Type Visibility

Customer administrators can disable the 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 Oracle CX Sales and B2B Service 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

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 are 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.

Overview of 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 which records are processed and how. 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.

Related Topics
- Submit Scheduled Processes and Process Sets
- View Status and Other Details for Scheduled Processes
- Cancel or Make Changes to Scheduled Processes
- View Output from Scheduled Processes
- Create Job Definitions to Run Reports as Scheduled Processes
- Best Practices for Scheduled Processes in Fusion Applications
Profile Options and Scheduled Processes for SR Management

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

Here's a table that describes the various profile options for service request management:

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_ENABLE_AUDIT_IN_SR</td>
<td>Enables or disables auditing of field value changes.</td>
</tr>
<tr>
<td>SVC_ASSIGN_TO_QUEUE_ON_CREATE</td>
<td>Assigns an SR to a queue automatically, when the SR is created.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong></td>
</tr>
<tr>
<td></td>
<td>The preferred way of assigning an SR to a queue is by using Omnichannel assignment. If Omnichannel is enabled, this profile option is ignored.</td>
</tr>
<tr>
<td>SVC_SR_IN_RESOLVED_DAYS</td>
<td>Defines the number of days after which any resolved SR is automatically closed.</td>
</tr>
<tr>
<td></td>
<td>This profile option must be used along with the Auto-Close Service Requests job process.</td>
</tr>
<tr>
<td></td>
<td>Make sure the following two conditions are met:</td>
</tr>
<tr>
<td></td>
<td>• The SVC_SR_IN_RESOLVED_DAYS profile value must be set to 1 or greater for the Auto-Close Service Request job to run.</td>
</tr>
<tr>
<td></td>
<td>• The SVC_SR_IN_RESOLVED_DAYS profile value must be set to 0 to disable the Auto-Close Service Request job.</td>
</tr>
<tr>
<td>SVC_SR_IN_WAITING_DAYS</td>
<td>Defines number of days for which a service request must be in Waiting status before the SR is auto resolved.</td>
</tr>
<tr>
<td></td>
<td>This profile option must be used along with the Auto-Close Service Requests job process.</td>
</tr>
<tr>
<td></td>
<td>Make sure the following two conditions are met:</td>
</tr>
<tr>
<td></td>
<td>• The SVC_SR_IN_WAITING_DAYS profile value must be set to 1 or greater for the Auto-Close Service Request job to run.</td>
</tr>
<tr>
<td></td>
<td>• The SVC_SR_IN_WAITING_DAYS profile value must be set to 0 to disable the Auto-Close Service Request job.</td>
</tr>
<tr>
<td>SVC_AUTO_CLOSED_STATUS_CD</td>
<td>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</td>
</tr>
<tr>
<td>Profile Option</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SVC_AUTO_RESOLVED_STATUS_CD</td>
<td>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 Auto-Close Service Requests job process. For more information, see Scheduled Processes for SR Management.</td>
</tr>
<tr>
<td>SVC_PUID_FORMAT</td>
<td>Defines the format for the unique reference number on each SR. 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. For more information about configuring the prefix and radix, see “Configure the Prefix and Radix for Service Requests”. Note: The SVC_PUID_PREFIX profile option used earlier no longer exists.</td>
</tr>
<tr>
<td>SVC_SR_DEFAULT_SEVERITY_CD</td>
<td>Sets the default Severity value for a new SR.</td>
</tr>
<tr>
<td>SVC_SR_DEFAULT_STATUS_CD</td>
<td>Sets the default Status code for a new SR.</td>
</tr>
<tr>
<td>SVC_SR_IN_DELETED_DAYS</td>
<td>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 Purge Deleted Service Requests job process to purge SRs. For more information, see Scheduled Processes for SR Management. 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.</td>
</tr>
<tr>
<td>SVC_INBOUND_ENABLE_FAILED_MESSAGE_PURGE</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_ATTACHMENT_UI</td>
<td>Defines the attachment view for an SR. There are two types of attachment options you can provide:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Classic</strong>: Enables users to select the type of attachment, category, and enter the name and description for each attachment.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Basic</strong>: Enables users to only select file type, browse and upload attachments to the SR.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Advanced</strong>: 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.</td>
</tr>
<tr>
<td>SVC_EVENT_HISTORY_DAYS_TO_KEEP</td>
<td>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.</td>
</tr>
</tbody>
</table>
Profile Options, Lookups, and Scheduled Processes for Service Requests

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_INBOUND_MSG_RETENTION_DAYS</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_ENABLE_MESSAGE_CORRECTION</td>
<td>Enables you to edit the text of the Internal Note and Customer Entry SR messages that you have previously created and posted.</td>
</tr>
<tr>
<td>SVC_ENABLE_RESOLVE_SR</td>
<td>Enables the ready-to-use workflow for resolving a service request. This profile option is disabled by default. When enabled, the Resolve link is displayed in the Actions menu. Clicking Resolve displays a dialog box that captures the service request outcomes and resolutions, and enables you to enter resolution notes.</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>If this profile option isn't enabled, you can still manually set the service request status to Resolved.</td>
</tr>
<tr>
<td>SVC_HIDE_HIERARCHY_FOR_CUST ENTRY_AND_RESPONSE</td>
<td>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. Default value is No, which displays the SR messages in an hierarchical format.</td>
</tr>
<tr>
<td>SVC_ENABLE_SEVERITY_COLOR_IN_SR</td>
<td>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.</td>
</tr>
</tbody>
</table>

Configure the Prefix and Radix for Service Requests

When a service request (SR) is created, the application generates a unique number or ID for each SR. 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:
   - Offering: Service
   - Functional Area: Productivity Tools
   - 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 SR 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 CX Sales Implementing Sales guide.

6. Click **Save and Close**.

**Related Topics**
- SR Management Profile Options
- Overview of Public Unique IDs

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

Let's say you have an account hierarchy with multiple subsidiaries. Then 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.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_SVC_ALLOW_ANY_CONTACT_ON_SR</td>
<td>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.</td>
</tr>
<tr>
<td>ORA_SVC_DEF_ACCESS_FOR_3RD_PARTY_CONTACTS</td>
<td>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.</td>
</tr>
</tbody>
</table>

---

### 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.

---

Oracle
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 "Understanding SR Scheduled Processes" in Related Topics.

<table>
<thead>
<tr>
<th>Job Process Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-Close Service Requests</td>
<td>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 scenarios is set using the SVC_SR_IN_RESOLVED_DAYS and SVC_SR_IN_WAITING_DAYS profile options respectively.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> When an SR is closed by this job process, the Status field on the SR can be audited.</td>
</tr>
<tr>
<td>Purge Deleted Service Requests</td>
<td>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.</td>
</tr>
<tr>
<td>Purge Inbound Messages</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>If the SVC_INBOUND_ENABLE_FAILED_MESSAGE_PURGE profile option is set to Yes, this job also purges inbound messages that failed or weren't processed successfully.</td>
</tr>
<tr>
<td>Load and Update Cloud Metrics for Service</td>
<td>Performs incremental loading and updating of usage and business metrics that are targeted to cloud usage patterns.</td>
</tr>
<tr>
<td>Service Request Queue Assignment</td>
<td>Assigns queues to service requests. This job takes the following parameters:</td>
</tr>
<tr>
<td></td>
<td>• Work Object Code: Indicates business objects that get assigned to agents, such as, service requests.</td>
</tr>
<tr>
<td></td>
<td>Expected Value: ORA_Service_Request_Work_Object</td>
</tr>
<tr>
<td></td>
<td>• Candidate Object Code: Indicates objects that are the possible pool of assignment candidates, such as queues.</td>
</tr>
<tr>
<td></td>
<td>Expected Value: ORA_Queue_Candidate_Object</td>
</tr>
<tr>
<td></td>
<td>• Assignment Mode (List of Values: Classification, Matching, Scoring, Territory): Indicates the type of assignment processing. Matching is the only mode that's supported.</td>
</tr>
<tr>
<td></td>
<td>• View Criteria Name: Indicates the view criteria used to identify the service requests to be assigned.</td>
</tr>
<tr>
<td></td>
<td>Expected Value: OpenSRsUnassignedToQueueByStripeCd</td>
</tr>
<tr>
<td></td>
<td>• Bind Variable: Indicates the bind variables required for the view criteria.</td>
</tr>
<tr>
<td></td>
<td>Expected Value: BindStripeCd=ORA_SVC_CRM</td>
</tr>
<tr>
<td></td>
<td>• Metrics Logging Interval (default value is 100): 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.</td>
</tr>
<tr>
<td></td>
<td>• Diagnostic Mode (check box): Indicates if the process must be run in diagnostic mode to view the details of assignment processing in an output log.</td>
</tr>
<tr>
<td>Job Process Name</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Note:</strong> The preferred way of assigning an SR to a queue is by using Omnichannel assignment.</td>
<td></td>
</tr>
<tr>
<td>Service Configuration Setup</td>
<td>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.</td>
</tr>
<tr>
<td>Aggregate Service Requests</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Note:</strong> If you need faster data refreshes, increase the frequency. However, this impacts the performance of the transaction system.</td>
<td></td>
</tr>
<tr>
<td>Monitor Service Request Milestones</td>
<td>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.</td>
</tr>
<tr>
<td>Purge Service Event History</td>
<td>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.</td>
</tr>
<tr>
<td>Monitor Action Plan Actions</td>
<td>Evaluates the status of an action plan. The recommended frequency for running this job is 15 minutes.</td>
</tr>
<tr>
<td><strong>Note:</strong> If you need faster data refreshes, increase the frequency. However, this impacts the performance of the transaction system.</td>
<td></td>
</tr>
<tr>
<td>Execute Incremental Load of Cross-Channel Interaction Data for Reporting</td>
<td>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.</td>
</tr>
</tbody>
</table>
| Execute Full Load of Cross-Channel Interaction Data for Reporting | 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:  
  - The first time data is loaded.  
  - Any time the data needs to be refreshed from a specific date. |
| 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                     | Migrates the following business objects from one business unit (BU) to another:  
  - Category |
<table>
<thead>
<tr>
<th>Job Process Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Channel</td>
<td></td>
</tr>
<tr>
<td>• Milestone Configuration</td>
<td></td>
</tr>
<tr>
<td>• Service Request</td>
<td></td>
</tr>
<tr>
<td>Execute Incremental Load of SR Audit Data for Reporting</td>
<td>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.</td>
</tr>
<tr>
<td>Unlock Scheduled Process that Incrementally Loads SR Audit Data</td>
<td>Removes the process lock created by the Execute Incremental Load of SR Audit Data for Reporting scheduled process, when that process fails to remove its lock automatically. This process should be run only if the Execute Incremental Load of SR Audit Data for Reporting scheduled process is unable to start, and no other instance of that process is currently running.</td>
</tr>
<tr>
<td>Purge Obsolete User Preferences</td>
<td>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.</td>
</tr>
<tr>
<td>Purge Obsolete Notification Followers</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Related Topics**

**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.
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 Service 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. The Auto-Close Service Requests scheduled process also resolves SRs that have been in waiting status for a certain number of days. The number of days for this scenario is set using the SVC_SR_IN_WAITING_DAYS profile option. For more information about these two profile options, see SR Management Profile Options.

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
- SR Management Profile Options

Audit Trail for Service Requests

Enable Creating an Audit Trail for Service Requests

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.
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 **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 for Service Requests

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 Applications Cloud 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_VIEWSERVICE_REQUESTCHANGE_HISTORY` privilege.

### Related Topics
- Common Component Subtabs

### FAQs About SR Management

**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). That’s because the contact remaining after the merge is now associated with the SR, as it replaces the merged contact. However, no data is lost, as the records are merged. When two contacts 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.
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 primary contact on an SR to be updated, then the contacts don’t merge.

**Related Topics**

- Survivorship Rules
- How You Merge Duplicate Records
- Automerge
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. And 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

Enter Your Company Information and Corporate Currency

These steps are required if you haven't previously configured CX Sales in your instance. What you have to do is enter basic information in the Sales: Setup page about your company and specify your corporate currency. Your entries are required for internal application purposes only and are required for your instance of CX Service. The information you enter creates a rudimentary enterprise structure and isn't visible to service organization users or customers.

When you finish this procedure you will have:

- Created a rudimentary enterprise structure required for internal application purposes only.
  - The enterprise structure isn't visible to service organization users or their customers.
- Created a set of automatic role-provisioning rules that provision users with the required security roles.

This is a one-time setup. After you enter the information on the Create Company Information page, the page becomes read-only and the title changes to Review Company Information.

So, enter your company information and corporate currency by doing the following:

1. Open the task from the Setup: Sales page by clicking the Quick Setup icon for the Company Profile functional area (the gears icon highlighted by callout 1 in the following figure). If any changes are required after your initial setup, you can open the appropriate tasks in the Task area.
2. In the Create Company Information page, enter your company name in the Enterprise Name field.
3. Enter the country where your company is located.
4. Enter your company street address. Don't enter city or state and other information.
5. The first and last name fields list the names of the user who signed into the application. You can edit the entries.
6. When you're satisfied that the information is correct, click Submit. The application runs a background process to create the enterprise structure and create the role-provisioning rules.
7. Optionally, click Refresh to monitor the progress of the process.

When the process completes, the Review Company Information page appears. The page displays both the information that you entered and the information that the process created for you. You can't edit any of the fields except Corporate Currency. None of the names you see are visible to salespeople, so they don't have to correspond to any actual entities in your organization. The following table lists and describes the fields.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Name</td>
<td>The name you entered.</td>
</tr>
<tr>
<td>Address</td>
<td>The street address you entered.</td>
</tr>
</tbody>
</table>
### Field | Description
--- | ---
Legal Entity | The enterprise name followed by the letters **LE**.
Business Unit | The enterprise name followed by the letters **LE BU**.
Initial User | Name of the user who’s signed in.
Corporate Currency | By default, the corporate currency is US Dollar. Select a different corporate currency, if required.

This image shows the Corporate Currency field.

8. If your company uses a different currency than the US Dollar select the currency from the **Corporate Currency** list.
9. Record the **Legal Entity** and **Business Unit** names. You must enter these names when importing users.
10. Click **Save and Close**.

### 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 *Getting Started with Your Sales Implementation* guide.

**Related Topics**

### Overview of Setting Up Users and Security

Since you followed the *Getting Started with Your Sales Implementation* 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 users who access the transactional UI, for example sales representatives working in leads and opportunities, are created as resources and are known as sales 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.

**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 CX Sales and B2B 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.

<table>
<thead>
<tr>
<th>Setup Task or Option and Navigation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Job Roles Task</td>
<td>Oracle provides many predefined job roles. The relevant sales roles are listed in the <em>Getting Started with Your Sales Implementation</em> guide. You perform the Manage Job Roles task to:</td>
</tr>
<tr>
<td>Navigation: Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</td>
<td>• Review the role hierarchy of a job or abstract role. • Create custom job and abstract roles. • View the roles assigned to a user and list the users who have a specific role. This task opens the Roles tab of the Security Console.</td>
</tr>
</tbody>
</table>

*ORACLE*
<table>
<thead>
<tr>
<th>Setup Task or Option and Navigation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Duties Task</td>
<td>You perform the Manage Duties task to:</td>
</tr>
<tr>
<td></td>
<td>• Review the duties of a job or abstract role.</td>
</tr>
<tr>
<td></td>
<td>• Manage the duties of a custom job or abstract role.</td>
</tr>
<tr>
<td></td>
<td>• Create custom duty roles.</td>
</tr>
<tr>
<td></td>
<td>This task opens the Roles tab of the Security Console.</td>
</tr>
<tr>
<td>Manage Data Security Policies Task</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Sales and Service Access Task</td>
<td>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 Securing CX Sales and B2B Service guide.</td>
</tr>
<tr>
<td>Navigation: Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</td>
<td></td>
</tr>
<tr>
<td>Manage Users Task</td>
<td>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.</td>
</tr>
<tr>
<td>Navigation: Navigator &gt; Users and Roles item or Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</td>
<td>Note: You can also create sales users by importing users. For information on the user import options available, see the Understanding Import and Export Management for CX Sales and B2B Service and Getting Started with Your Sales Implementation guides.</td>
</tr>
<tr>
<td>Manage HCM Role Provisioning Rules Task</td>
<td>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.</td>
</tr>
<tr>
<td>Navigation: Setup and Maintenance &gt; Sales Offering &gt; Users and Security functional area</td>
<td></td>
</tr>
<tr>
<td>Import and Export Management</td>
<td>You can import users in bulk using data files. For information on the user import options available, see the Understanding Import and Export Management for CX Sales and B2B Service and Getting Started with Your Sales Implementation guides.</td>
</tr>
<tr>
<td>Import Partner Users Task</td>
<td>You can also import partner contact data using the Import Partner Users task. For more information, see the Getting Started with Your Partner Relationship Management Implementation guide.</td>
</tr>
<tr>
<td>Single Sign-On Authentication</td>
<td>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 My Oracle Support at <a href="https://support.oracle.com">https://support.oracle.com</a>.</td>
</tr>
<tr>
<td>Resetting User Passwords</td>
<td>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 Getting Started with Your Sales Implementation guide for more information.</td>
</tr>
</tbody>
</table>
## Overview of Resources and Resource Management

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.

**Related Topics**

- Overview of Setting Up Users and Security
- About Resource Role Assignment
- Overview of Resource Organizations and Organization Usages

## Setting Up Resource Teams

### 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 resource 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

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 CX Sales and B2B Service guide.

<table>
<thead>
<tr>
<th>Job Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service Manager</td>
<td>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.</td>
</tr>
<tr>
<td>Customer Service Representative</td>
<td>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.</td>
</tr>
<tr>
<td>Knowledge Analyst</td>
<td>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.</td>
</tr>
<tr>
<td>Knowledge Manager</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Duty Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Request Troubleshooter</td>
<td>Manages all aspects of the Service Request object. A customer service representative is typically given this duty role.</td>
</tr>
<tr>
<td>Service Request Contributor</td>
<td>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. This role is typically given to non-service users, for example, sales representatives, product managers and engineers.</td>
</tr>
<tr>
<td>Service Request Power User</td>
<td>Do all the tasks that a troubleshooter can, with the added privileges to manage queues. Customer service managers are typically given this duty role.</td>
</tr>
<tr>
<td>Service Request Administrator</td>
<td>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.</td>
</tr>
<tr>
<td>Service Request Channel User</td>
<td>Manages all aspects of a service request that is associated with a partner account. This duty is similar to the service request troubleshooter.</td>
</tr>
<tr>
<td>Service Request Partner User</td>
<td>Submits service requests to get assistance with partner sales or support issues. This duty is granted to a contact from a partner account.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Provisioning Rule Name</th>
<th>Condition</th>
<th>Job or Abstract Roles Provisioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Vice President</td>
<td>HR Assignment is Active</td>
<td>Customer Service Manager</td>
</tr>
<tr>
<td></td>
<td>Resource Role is Service Vice President</td>
<td>Resource</td>
</tr>
<tr>
<td>Service Administrator</td>
<td>HR Assignment is Active</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td></td>
<td>Resource Role is Service Administrator</td>
<td>Application Administrator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource</td>
</tr>
<tr>
<td>Service Manager</td>
<td>HR Assignment is Active</td>
<td>Customer Service Manager</td>
</tr>
<tr>
<td></td>
<td>Resource Role is Service Manager</td>
<td>Resource</td>
</tr>
<tr>
<td>Service Representative</td>
<td>HR Assignment is Active</td>
<td>Customer Service Representative</td>
</tr>
<tr>
<td></td>
<td>Resource Role is Service Representative</td>
<td>Resource</td>
</tr>
</tbody>
</table>

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
- 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 Service Request 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. But you have the option to restrict their access based on their queue membership.
You can ensure that the 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 or 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 CX Securing CX Sales and B2B 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 CX Securing CX Sales and B2B Service* guide.

**Related Topics**
- Edit Data Security Policies on the Security Console
- Create Job or 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 CX Securing CX Sales and B2B 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 or Abstract Roles
- Copy and Edit Duty Roles
- Copy Job or Abstract Roles

## Set Up Service Request Visibility Based on BU

### How You Set Up Service Request 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. But you have the option to restrict their access based on their Business Unit (BU) membership.

You can ensure 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.
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 CX Securing CX Sales and B2B 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 CX Securing CX Sales and B2B Service guide.

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 CX Securing CX Sales and B2B 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 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 or Abstract Roles**
- **Copy and Edit Duty Roles**
- **Copy Job or Abstract Roles**

**Data Security Policies on SRs**

**Define Access-Group-Based Data Security Policies on Service Requests**

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 CX Securing CX Sales and B2B 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

Define System-Access-Group-Based Data Security Policies on Service Requests

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.

For more information about:

- How to enable the predefined rules for a system access group: See the Oracle CX Securing CX Sales and B2B Service guide.

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

<table>
<thead>
<tr>
<th>S. no.</th>
<th>Predefined rule name</th>
<th>This rule provides access to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All Service Requests</td>
<td>All service requests.</td>
</tr>
<tr>
<td>2</td>
<td>All CRM Service Requests</td>
<td>Access to all CRM service requests.</td>
</tr>
<tr>
<td>3</td>
<td>CRM Business Unit Service Requests</td>
<td>All CRM service requests associated with the user's business units.</td>
</tr>
<tr>
<td>4</td>
<td>CRM Partner Service Requests</td>
<td>All CRM partner service requests.</td>
</tr>
<tr>
<td>5</td>
<td>CRM Business Unit Partner Service Requests</td>
<td>CRM partner service requests associated with the user's business units.</td>
</tr>
<tr>
<td>6</td>
<td>CRM Service Request Queue Member</td>
<td>All CRM service requests assigned to queues that the user is a member.</td>
</tr>
<tr>
<td>S. no.</td>
<td>Predefined rule name</td>
<td>This rule provides access to:</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>CRM Service Request Queue Member Hierarchy</td>
<td>All CRM service requests assigned to queues that the user’s subordinates are a member.</td>
</tr>
<tr>
<td>8</td>
<td>CRM Service Request Team</td>
<td>All CRM service requests where the user is on the SR team.</td>
</tr>
<tr>
<td>9</td>
<td>CRM Service Request Team Hierarchy</td>
<td>All CRM service requests where the user’s subordinates are on the SR team.</td>
</tr>
<tr>
<td>10</td>
<td>CRM Service Request Assignee</td>
<td>All CRM service requests where the user is the assignee.</td>
</tr>
<tr>
<td>11</td>
<td>CRM Service Request Assignee Hierarchy</td>
<td>All CRM service requests where the user’s subordinates are the assignee.</td>
</tr>
<tr>
<td>12</td>
<td>CRM Service Request Creator</td>
<td>All CRM service requests where the user created the SRs.</td>
</tr>
<tr>
<td>13</td>
<td>CRM Service Request Creator Hierarchy</td>
<td>All CRM service requests where the user's subordinates created the SRs.</td>
</tr>
<tr>
<td>14</td>
<td>CRM Service Request Partner Account</td>
<td>All service requests where the SR is associated with the user's partner account.</td>
</tr>
<tr>
<td>15</td>
<td>CRM Service Request Contact</td>
<td>All CRM service requests where the user is an SR contact.</td>
</tr>
<tr>
<td>16</td>
<td>All HR Service Requests</td>
<td>All HR service requests.</td>
</tr>
<tr>
<td>17</td>
<td>HR Business Unit Service Requests</td>
<td>All HR service requests associated with the user’s business units.</td>
</tr>
<tr>
<td>18</td>
<td>HR Service Request Queue Member</td>
<td>All HR service requests assigned to queues that the user is a member of.</td>
</tr>
<tr>
<td>19</td>
<td>HR Service Request Queue Member Hierarchy</td>
<td>All HR service requests assigned to queues that the user’s subordinates are a member of.</td>
</tr>
<tr>
<td>20</td>
<td>HR Service Request Team</td>
<td>All HR service requests where the user is on the SR team.</td>
</tr>
<tr>
<td>21</td>
<td>HR Service Request Team Hierarchy</td>
<td>All HR service requests where the user’s subordinates are on the SR team.</td>
</tr>
<tr>
<td>22</td>
<td>HR Service Request Creator</td>
<td>All HR service requests where the user created the SRs.</td>
</tr>
</tbody>
</table>
Oracle CX Service
Implementing B2B Service

Chapter 3
Users and Security

<table>
<thead>
<tr>
<th>S. no.</th>
<th>Predefined rule name</th>
<th>This rule provides access to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>HR Service Request Primary Contact</td>
<td>All HR service requests where the user is the SR primary contact.</td>
</tr>
<tr>
<td>24</td>
<td>HR Service Request Assignee</td>
<td>All HR service requests where the user is the assignee.</td>
</tr>
<tr>
<td>25</td>
<td>HR Service Request Assignee Hierarchy</td>
<td>All HR service requests where the user’s subordinates are the assignee.</td>
</tr>
</tbody>
</table>

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.

**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 SR 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:

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 access to SR messages for all the access group members.

**Note:** For more detailed information about the above steps, see the Oracle CX Securing CX Sales and B2B 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 Service 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 CX Securing CX Sales and B2B 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.


Related Topics
- 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 enabled on the SR (the other actions are either disabled or hidden):
  - Copy
  - Get Link
  - Forward
  - Internal Note
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 or 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.
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 or 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 or 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.
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 or Abstract Roles
- Copy and Edit Duty Roles
- Copy Job or Abstract Roles
4 Catalog Management

Defining a Catalog for the Service Offering: Explained

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:
   - Offering: Service
   - Functional Area: Service Catalog
   - 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.
   For more information about defining a product catalog, see "Sales Catalog: Overview".

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.

Related Topics

- Overview of Sales Catalogs
- Update Existing Setup Data
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:

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Where to Find More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure prerequisites are set up</td>
<td>Ensure that your prerequisite structures are set up before starting to create the catalog.</td>
<td>See the Prerequisite Setups for Sales Products topic in this chapter</td>
</tr>
<tr>
<td>Create the root product group</td>
<td>Create the root product group. The root catalog or root product group is the top of the product</td>
<td>See the Create the Root Product Group topic in this chapter</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
<td>Where to Find More Information</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Create the product group hierarchy | Add additional product groups to create the catalog hierarchy of product groups and subgroups. 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. | See:  
  * Create the Product Group Hierarchy topic in this chapter  
  * The topic, Options for Importing Data Into Your Application (linked below), as well as additional topics about importing products, in the Getting Started with Your Sales Implementation guide |
| Create or import products    | 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.  
  You can also import products and the product hierarchy all at once. Or, you can use Import Management to import products and the hierarchy. |  
  * If using the sales Products UI, see the Products chapter in this guide  
  * If using Oracle Supply Chain Management (SCM) Cloud product model see these guides:  
    1. Oracle SCM Cloud Implementing Product Management  
    2. Oracle SCM Cloud Using Product Master Data Management  
  * To learn more about your import options, see the topic, Options for Importing Data Into Your Application (linked below), in the Getting Started with Your Sales Implementation guide  
  * To import using quick import macros, see the topics about importing products in the Getting Started with Your Sales Implementation guide  
  * To import using Import Management, see the Understanding Import and Export Management guide for CX Sales and B2B Service |
<p>| Add products to the catalog  | If you're going to use individual products in the catalog, add products to the product group hierarchy.                                                                                                  | See the Add Products to the Catalog topic in this chapter                                        |
| Publish the sales catalog    | Publish the product group hierarchy that makes up the sales catalog. Perform this step in the product groups pages in Setup and Maintenance.                                                                   | See:                                                                                           |</p>
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Where to Find More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>• Publish the Sales Catalog topic in this chapter  • Run the Refresh Denormalized Product Catalog Table topic in this chapter</td>
<td></td>
</tr>
<tr>
<td>Enable the sales catalog</td>
<td>To enable a sales catalog for use in the applications, you associate it with a “usage” called the Base usage.</td>
<td>See the Enable the Sales Catalog topic in this chapter</td>
</tr>
<tr>
<td>Run the scheduled process, Refresh Denormalized Product Catalog Table for BI</td>
<td>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.</td>
<td>See the Run the Refresh Denormalized Product Catalog Table topic in this chapter</td>
</tr>
<tr>
<td>Enable salespeople to browse the catalog</td>
<td>Set the profile option, Browse Sales Catalog in Opportunities Enabled, to Yes to enable Browse Sales Catalog button on the Products table.</td>
<td>See the Enable Salespeople to Browse the Catalog topic in this chapter</td>
</tr>
<tr>
<td>Let salespeople sort alphabetically</td>
<td>Salespeople browsing the sales catalog can sort products and product groups alphabetically after you set a profile option.</td>
<td>See Let Salespeople Sort the Sales Catalog Alphabetically in this chapter</td>
</tr>
<tr>
<td>Set usage options for searching and browsing</td>
<td>If you have set up the browse catalog feature, configure search and browse options.</td>
<td>See the Set Options for Sales Catalog Searching and Browsing topic in this chapter</td>
</tr>
<tr>
<td>Verify your setups</td>
<td>After you have published and enabled your catalog and, optionally, set up browsing, validate your setups.</td>
<td>See the Validate the Sales Catalog topic in this chapter</td>
</tr>
<tr>
<td>Set up eligibility rules for products</td>
<td>You can implement eligibility rules that enable salespeople to check product eligibility in opportunities.</td>
<td>See the Set Up Product Eligibility topic in the Products chapter of this guide</td>
</tr>
<tr>
<td>Set territory filtering options</td>
<td>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.</td>
<td>See the Filter Catalog Display by Territories topic in this chapter</td>
</tr>
<tr>
<td>Integrate with Oracle Configure, Price, and Quote (Oracle CPQ) for additional capabilities</td>
<td>You can use the prebuilt CX Sales-Oracle CPQ integration to let salespeople manage a variety of quote-related activities.</td>
<td>See the Quotes and Orders chapter in this guide and the Integrating CX Sales with Oracle CPQ guide on Oracle Help Center</td>
</tr>
</tbody>
</table>
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 individually, 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:
   - Offering: Sales
   - Functional Area: Sales Catalog and Products
   - 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.

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 Getting Started with Your Sales Implementation guide.

Of course, if you’re integrating with Oracle Supply Chain Management (SCM) Cloud, you may be creating products 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
- Options for Importing Data Into Your Application
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:
   - Offering: Sales
   - Functional Area: Opportunities
   - Task: Manage Opportunity Profile Options
2. Search for:
   - Profile Display Name: Browse Sales Catalog in Opportunities Enabled
   or
   - 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 B2B 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

- Overview of Sales Catalog Setup Steps
- Enable Salespeople to Browse the Catalog
- Run the Refresh Denormalized Product Catalog Table Process
- Best Practices for Sales Catalog Setup
5 Service Request Categories

Overview of Service Request 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 Service Request Categories
- Update Existing Setup Data

Manage Service Request Categories

Service request 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, consider the following:

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

To create service request categories do the following:

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

      The Manage Service Request Categories page appears.

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. Specify if the category must be active, by selecting a value in the Active drop-down list.
d. Enter a unique Short Code for the category.
e. From the Business Unit Name drop-down list, select the business unit (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.
f. 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. Specify if the category must be active, by selecting a value from the Active drop-down list.
      The Business Unit Name column displays the BU associated with the top-level category.
   e. 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 Service Request Categories
- Update Existing Setup Data

Translate SR Category Names into Installed Languages

Let's say you want to display the names of service request (SR) categories in the language of your installation. By default, these names are the same in the base language and in all the installed languages. But they can be translated. So you can provide language-specific SR category names in all the installed languages in the application.

To translate the SR 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.
Overview of Sales Assignments, Mappings, and Rules

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

<table>
<thead>
<tr>
<th>Topic in the Oracle CX Sales Implementing Sales guide</th>
<th>What the topic covers</th>
</tr>
</thead>
</table>
| Considerations for Configuring Assignment             | • Phases of assignment
|                                                       | • Setup tasks used for an assignment configuration
|                                                       | • Assignment objects
|                                                       | • Attributes
|                                                       | • Mapping sets and mappings
|                                                       | • Rule categories, rule sets, and rules                                                 |
| 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
- Examples of Creating Assignment Rules
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 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 Mappings

How You 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.

See the chapter about importing and exporting setup data in the "Using Functional Setup Manager" guide for more details.

Related Topics

- Points to Consider to Export and Import Setup Data
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 You 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.
Manage Service 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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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.

Related Topics

- Assignment Rule Components
- What Happens When You Change Queue Properties
Enable Definition of Rules Based on SR 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 whole procedure is optional. You may want to use tags, but you may still not require rules related to tags.

(Optional) To enable defining of rules based on SR tags:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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. In the View Object Attribute column, select Tag from the drop-down list.
9. Click Save.

You can now define rules based on SR tags.

Manage Service 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.
<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
<th>Value</th>
<th>Used in hierarchy?</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equals</td>
<td>The value of a field equals a specific value.</td>
<td>Single</td>
<td>No</td>
<td>If the rule condition is set as Service Request Severity Equals High, only an SR with the severity value of High matches the condition.</td>
</tr>
<tr>
<td>Does not equal</td>
<td>The value of a field doesn't equal a specific value.</td>
<td>Single</td>
<td>No</td>
<td>If the rule condition is set as Service Request Severity Does not equal High, an SR with severity value of Low or Medium matches the condition.</td>
</tr>
<tr>
<td>In</td>
<td>The value of a field is one of a list of values.</td>
<td>Single or Multiple</td>
<td>No</td>
<td>If the rule condition is set as Service Request Problem type Code In Docs, Product, an SR with the problem type code value of Docs or Product matches the condition.</td>
</tr>
<tr>
<td>In including children</td>
<td>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.</td>
<td>Single or Multiple</td>
<td>Yes</td>
<td>If the rule condition is set as Service Request Product Group In including children Apple, 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.</td>
</tr>
<tr>
<td>Not in including children</td>
<td>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.</td>
<td>Single or Multiple</td>
<td>Yes</td>
<td>If the rule condition is set as Service Request Product Group Not in including children iPad, 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.</td>
</tr>
<tr>
<td>Not in</td>
<td>The value of a field isn't in a list of values.</td>
<td>Single or Multiple</td>
<td>No</td>
<td>If the rule condition is set as Service Request Problem Type Code Not in Docs, Product, 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.</td>
</tr>
</tbody>
</table>
To manage SR assignment rules:

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

2. On the Manage Service Assignment Rules page, select a **Category** based on the following.
   - **Generic Queuing Rules**: Rules set for all types of work items.
   - **HR Service Request Queuing Rules**: Rules set for HR Help Desk SR.
   - **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.
Set Rules for Queue Assignment

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:
   - Offering: Service
   - Functional Area: Communication Channel
   - Task: Manage Service Assignment
2. On the Manage Service Assignment Rules page, select one of the following from the **Category** drop-down list:
   - Service Request Queuing Rules for SRs
   - Generic Queuing Rules for chat
3. Do one of the following:
   - Create a rule set by clicking the **Plus** icon and specifying the required values.
   - 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. 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 CriticalQueue.

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
- 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
- Set Rules for Queue Assignment

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 don’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

#### 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 chat requests and non-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 SRs is considered to be 100 percent occupied.

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 is busy, then no work items are assigned to him. If an agent isn't signed in, then the presence is set to offline.

Agent Availability

Agent availability indicates whether an agent is 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 explicitly 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**.

**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. For more information, see "Enable Omnichannel".

Related Topics
- Enable Omnichannel
- Configure Presence and Availability Privilege

Service Request Severity and Age

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".

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

Related Topics
- Add Service Request Severity Values
- Prevent Starvation of Low Priority Work Requests
Default Queue

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. Also, 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.

Related Topics
- Enable Omnichannel
How You 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.

**Related Topics**
- Enable Omnichannel
- Order in Which SRs are Assigned
- How to Assign Agents to Work Items

Order in Which SRs 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 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. Then 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 You 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, it’s recommended 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 Service Request Severity Values

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:

   - Offering: Service
   - Functional Area: Service Request
   - 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.
   - **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.
   - **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 SRs are routed to agents. For example, a severity ranking of 2 is considered higher in priority when compared to a severity ranking of 5.
   - **Enabled**: Select to enable the severity value. SRs with disabled severity aren't displayed on the SR edit page.
   - **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.
   - **Meaning**: Enter an optional meaning for the severity value. For example, for Priority 1, specify the Meaning as Critical.
   - **Description**: Enter an optional description.
   - **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 You Assign Work to Agents
- Update Existing Setup Data

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**Omnichannel**

**Enable Omnichannel**

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. For more information about enabling offerings and features, see “Configuring Offerings” in the Using Functional Setup Manager guide.

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

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_ENABLE_OMNI</td>
<td>Enables Omnichannel.</td>
</tr>
<tr>
<td>Profile Option</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>SVC_OMNICHANNEL_BROWSER_NOTIFICATION_ENA</td>
<td>Enables browser notifications about work assignments.</td>
</tr>
</tbody>
</table>
| 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:  
• **Chat**: Disables the option for the agents to change their chat work item availability.  
• **Non-real-time Work**: Disables the option for the agents to change their non-real-time work item availability.  
• **All**: Disables the option for the agents to change any work item availability.  
• **None** (default value): Agents may change any work item availability. |

To enable Omnichannel and its notifications:

1. In the Setup and Maintenance work area, go to the following:  
   - Offering: Service  
   - Functional Area: Communication Channels  
   - 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:  
   - For the first three profile options in the table, set the value to **Yes** to enable the profile option.  
   - For the remaining profile options in the table, specify a suitable value as described.  
6. Click **Save**.
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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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 CX Service Using B2B Service 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.

Related Topics
- How You Assign Work to Agents
- Update Existing Setup Data
- Why You Override Individual Capacity Settings

Configure 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 CX Securing CX Sales and B2B 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 the high priority requests 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 the following profile options.

<table>
<thead>
<tr>
<th>Profile Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_ENABLE_STARVATION_PREVENTION</td>
<td>Enable prevention of work starvation to avoid work requests having a lower priority from being ignored while assigning work items to an agent.</td>
</tr>
<tr>
<td></td>
<td>The default value is No.</td>
</tr>
<tr>
<td>SVC_STARVATION_PREVENTION_NRT_INTERVAL</td>
<td>Specify the number of minutes after which the priority of an unassigned, non-real-time work request is increased for assigning to an agent.</td>
</tr>
<tr>
<td></td>
<td>The default value is 180 minutes.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong></td>
</tr>
<tr>
<td></td>
<td>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”.</td>
</tr>
<tr>
<td>SVC_STARVATION_PREVENTION_NRT_STEP</td>
<td>Specify the step size to increase the priority of a non-real-time work request.</td>
</tr>
<tr>
<td></td>
<td>The default value is 1.</td>
</tr>
<tr>
<td>SVC_STARVATION_PREVENTION_RT_INTERVAL</td>
<td>Specify the number of seconds after which the priority of an unassigned, real-time work request is increased for assigning to an agent.</td>
</tr>
<tr>
<td></td>
<td>The default value is 30 seconds.</td>
</tr>
</tbody>
</table>
Profile Options | Description
---|---
SVC_STARVATION_PREVENTION_RT_STEP | Specify the step size to increase the priority of a real-time work request. The default value is 1.

**Note:**
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".

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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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.

Third-Party Routing

How You Use Third-Party Routing Service Providers Instead of Omnichannel Routing

Instead of using the built-in Omnichannel routing engine to route the work objects from queues, you can also use a third-party routing service. To use this service, you must register the partner using REST APIs. For more information about registering the partner, see the REST API for CX Sales and B2B Service.

Third-party REST APIs enable integration between Oracle CX Sales and B2B Service and ACD systems or external routing applications. Third party routing APIs are channel-agnostic. So the same APIs support all the real-time and non-real-time channels that your B2B Service instance is configured with.

Here are some brief pointers on how third-party routing works:

1. To use an external router, you must first enable Omnichannel. Once enabled, any automatic queue can be configured to use Omnichannel routing or external routing. For more information about how to select the routing option for an automatic queue, see the Oracle CX Service Using B2B Service guide.
2. While configuring an automatic queue for external routing, you must also add agents on those queues to indicate which agents will be assigned work by your external router.

   | Note: This step is important to ensure that third party integration works properly.

3. Agents configured on external queues must also use the partner toolbar to indicate their presence and availability for a particular channel.
4. Omnichannel Third Party Routing APIs send appropriate work objects such as a new chat or a new SR to your external routing application.
5. Once the external application makes a routing or assignment decision, it can take that work to agents using one of the following:
   - HTML5 notifications
   - Multichannel adapter framework notifications
   - Omnichannel's offer management capability

Follow the One Channel, One Agent, One Routing Engine Rule

When you use both Omnichannel and a third-party service provider for routing, it's important to follow the One Channel: One Agent: One Routing Engine rule. This rule ensures that routing happens properly. You must configure the routing in such a way that a specific channel for a particular agent is always routed by a specific engine.

For example: For agent A, a chat can be always routed by a third-party service provider. And for the same agent, a service request can be always routed by Omnichannel.
As long as you follow this rule, it's fine to have the same agent on different queues, even if each queue is routed by different routing engines.

## Scenarios for Third-Party Routing

Depending upon what's required for your company, you can decide to use a third-party service or Omnichannel or both for routing.

This table shows the various possible ways in which you can configure the routing for your deployment.

<table>
<thead>
<tr>
<th>No.</th>
<th>Routing Scenario</th>
<th>What's routed through partner/CTI provider</th>
<th>What's routed through Omnichannel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Configure the CTI toolbar to route telephone calls. Configure Omnichannel to route non-telephonic channels such as chats and SRs.</td>
<td>Telephony: for all agents</td>
<td>Chats: for all agents SRs and Other Business Objects: for all agents</td>
</tr>
<tr>
<td>2.</td>
<td>Configure the CTI toolbar to route real-time channels such as telephone calls and chats. Configure Omnichannel to route non-real-time channels such as SRs and other business objects.</td>
<td>Telephony: for all agents Chats: for all agents</td>
<td>SRs and Other Business Objects: for all agents</td>
</tr>
<tr>
<td>3.</td>
<td>Configure the CTI toolbar to route telephone calls, chats, and SRs. Omnichannel isn't used for any routing.</td>
<td>Telephony: for all agents Chats: for all agents SRs and Other Business Objects: for all agents</td>
<td>None</td>
</tr>
<tr>
<td>4.</td>
<td>Configure the CTI toolbar to route: - Telephone calls for all agents - Chats for agent group 1 Configure Omnichannel to route: - SRs for all agents - Chats for agent group 2 Agent group 1 is added in Q1, and is configured to use third-party routing. Agent group 2 is added in Q2, and is configured to use Omnichannel routing.</td>
<td>Telephony: for all agents Chats: for agent group 1</td>
<td>SRs and Other Business Objects: for all agents Chats: for agent group 2</td>
</tr>
<tr>
<td>No.</td>
<td>Routing Scenario</td>
<td>What's routed through CTI provider</td>
<td>What's routed through Omnichannel</td>
</tr>
<tr>
<td>-----</td>
<td>------------------</td>
<td>-----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td></td>
<td>Each agent group caters to a different department of your company.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Configure the CTI toolbar to route:</td>
<td>Telephone calls: for all agents</td>
<td>Chats: for agent group 2</td>
</tr>
<tr>
<td></td>
<td>• Telephone calls: for all agents</td>
<td>Chats: for agent group 1</td>
<td>SRs and Other Business Objects: for agent group 2</td>
</tr>
<tr>
<td></td>
<td>• Chats: for agent group 1</td>
<td>SRs and Other Business Objects: for agent group 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SRs and Other Business Objects: for agent group 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configure Omnichannel to route:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chats: for agent group 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SRs and Other Business Objects: for agent group 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agent group 1 is added in Q1, and is configured to use third-party routing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agent group 2 is added in Q2, and is configured to use Omnichannel routing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Each agent group caters to a different department of your company.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Third-party service providers are typically telephony providers. Suppose your company’s customer support mostly uses voice calls. In that case, you may decide to use only a third-party provider and not use Omnichannel routing at all. This example corresponds to the third scenario in the table.

Now let’s look at the fourth scenario. Suppose you have two departments, A and B. The group of agents in Department A want to use a CTI provider for routing chats. But the agents in Department B are onboarding, and they prefer to continue using Omnichannel routing. In such cases, you can use two different routing engines for the agent groups in two departments.

The fifth scenario in the table is an extension of the fourth one. Here, the agents for Department A want everything to be routed by the CTI provider. The agents for Department B prefer everything to be routed by Omnichannel because they don’t want to spend an extra amount on the provider. So in this case, all the channels are routed by both the routing engines, but for different agent groups.
FAQs About Service Requests and Queues

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
- Default Queue
- Overview of Groovy Scripts

What happens if a newly created service 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 service request?

If an associated agent is removed from an open service request (SR) that’s in status 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.

For more information about capacity, see "Set Channel Capacity".
What happens if an open service 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 status New 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 service request is reopened?

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

- If the reopened SR is associated with an agent already, 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 FSM page, 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.

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 Email Channels

## How Inbound Messages Are 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:

The following steps describe the process flow for an incoming customer email:

1. A customer or a partner sends an email requesting support.
   - In HR Help Desk, an employee 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).
   - 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.
     - 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.
   - In HR Help Desk, the sender is validated against the employee records in the database.
     - If the email ID of the sender exists in the records, then the primary contact and the account are updated on the SR.
       - In HR Help Desk, the primary contact is set to the employee who sends the email. The **Account** field isn’t updated.
     - 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.
     - If more than one contact with the same email ID exists in the database, then the following scenarios are possible:

<table>
<thead>
<tr>
<th>No.</th>
<th>Scenario</th>
<th>Primary Contact in the SR</th>
<th>Acknowledgment Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sender’s email address matches the email address of 1 contact, 1 partner, and 1 resource.</td>
<td>The matching contact is set as the primary contact in the SR.</td>
<td>An acknowledgment email is sent to the sender.</td>
</tr>
<tr>
<td>2.</td>
<td>Sender’s email address matches the email address of 2 contacts.</td>
<td>No primary contact is set in the SR.</td>
<td>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.</td>
</tr>
<tr>
<td>3.</td>
<td>Sender’s email address matches the email address of 2 contacts and 1 partner.</td>
<td>No primary contact is set in the SR.</td>
<td>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.</td>
</tr>
</tbody>
</table>
### Scenario Table

<table>
<thead>
<tr>
<th>No.</th>
<th>Scenario</th>
<th>Primary Contact in the SR</th>
<th>Acknowledgment Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Sender's email address matches the email address of 1 partner and 1 resource.</td>
<td>The matching partner is set as the primary contact in the SR.</td>
<td>An acknowledgment email is sent to the sender.</td>
</tr>
<tr>
<td>5.</td>
<td>Sender’s email address matches the email address of 2 partners and 1 resource.</td>
<td>No primary contact is set in the SR.</td>
<td>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.</td>
</tr>
<tr>
<td>6.</td>
<td>Sender’s email address matches the email address of 1 resource.</td>
<td>The matching resource is set as the primary contact in the SR.</td>
<td>An acknowledgment email is sent to the sender.</td>
</tr>
</tbody>
</table>

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.
   - If they exist as contacts, they're added to the SR contacts.
   - 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.

### Related Topics

- Overview of Inbound Message Filters
- Create an Inbound Message Filter

### How You Set Up Inbound and Outbound Email

You can use email channels to receive emails from customers and to send emails to customers. Inbound messages are the messages that you receive from your customers. Outbound messages are the messages that you send to your customers. You can use a single email channel to handle both inbound and outbound email messages.
**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 mail. The To address already displays the account name field of the channel that the agent uses in the outbound message.

To set up inbound and outbound email, complete the following procedures in the given order.

<table>
<thead>
<tr>
<th>No.</th>
<th>Procedure</th>
<th>Describes how to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Enable Configuration of Email Communications</td>
<td>Enable the tasks required to configure inbound and outbound email communications for service requests.</td>
</tr>
<tr>
<td>2.</td>
<td>Configure an Email Channel</td>
<td>Configure an email channel for your organization.</td>
</tr>
<tr>
<td>3.</td>
<td>(Optional) Create and Update Inbound Message Filters</td>
<td>Set up email filters. Filters enable you to set one or more criteria based on which an incoming message from a customer or a partner can be accepted or rejected.</td>
</tr>
<tr>
<td>4.</td>
<td>Configure Profile Options for Inbound and Outbound Email</td>
<td>Configure inbound and outbound email profile options.</td>
</tr>
<tr>
<td>5.</td>
<td>(Optional) Define Email Templates</td>
<td>Define email templates.</td>
</tr>
<tr>
<td>6.</td>
<td>(Optional) Modify Acknowledgment Messages for Inbound Email</td>
<td>Modify the predefined acknowledgment messages provided by the application according to your company’s requirement.</td>
</tr>
<tr>
<td>7.</td>
<td>Access Point Setup for Inbound Emails: This section consists of multiple topics.</td>
<td>The procedures in this section describe how to verify your email channel configurations and how to register the correct access points with the UMS.</td>
</tr>
<tr>
<td>8.</td>
<td>Configure a Job to Process Inbound Emails</td>
<td>Configure a job to process inbound emails to retrieve emails from the customer at regular intervals.</td>
</tr>
</tbody>
</table>

**Related Topics**
- Configure an Email Channel
- Create an Inbound Message Filter
- Configure a Job to Process Inbound Emails
- Configure Profile Options for Inbound and Outbound Email
- Update Existing Setup Data
Enable Configuration of Email Communications

You must first enable the tasks required to configure inbound and outbound email communications for service requests. Only then can you proceed with the configuration.

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.

The ability to configure inbound and outbound communications is now enabled. Now you're ready to proceed with the configuration.

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 or HRHD. However, you can use the same email channel for both inbound and outbound emails:

- **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 SRs 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.
For HR Help Desk, use the email ID that contains the text ‘intservice’ 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.

For more information, see "Register 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, see "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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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**.

**Related Topics**

- Configure Profile Options for Inbound and Outbound Email
- Overview of Access Point Setup for Inbound Emails
- Register Access Points for Inbound Email
- Update Existing Setup Data

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**Inbound Message Filters**

**Overview of Inbound Message Filters**

Sometimes, you may want to use inbound message filters to set one or more filter criteria. Based on these filter criteria, incoming messages from customers or partners can be accepted or rejected. For example, you can set a filter to reject any emails that have **AutoReply** in the subject.

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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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.

**Related Topics**

- How Inbound Messages Are Processed
- Create an Inbound Message Filter
- Update an Inbound Message Filter
- Examples of Inbound Message Filters
- Update Existing Setup Data

**Create an Inbound Message Filter**

To create an inbound message filter:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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:
   - File attachment: A filter is applied to the file type of an attachment.
   - Header: A filter is applied to a message header.
   - Mime attachment: A filter is applied to the mime type of an attachment.
   - Reply to: A filter is applied to the Reply To address.
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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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 Inbound Messages Are Processed
- Overview of Inbound Message Filters
- Update an Inbound Message Filter
- Examples of Inbound Message Filters
- Update Existing Setup Data
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.

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>Regular Expression Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>File attachment</td>
<td>Attachments that are files with either .pdf, .txt, or .html file extensions: .pdf</td>
</tr>
</tbody>
</table>
| Header            | Emails with headers that contain the string Gentle Reminder:  
                    • ^Gentle Reminder[A-Za-z0-9._%+-]*  
                    • ^Gentle Reminder.* |
| Mime attachment   | Content Type header with values such as text/plain, text/html, image/jpeg, or application/octet-stream:  
                    text/plain|text/html|image/jpeg|application/octet-stream |
| Reply to          | Emails that are sent by the support team:  
                    • support_[A-Za-z0-9._%+-]*@company\.com  
                    • support_.*@company\.com |
| Sender            | Emails that are sent by an Oracle employee:  
                    • [A-Za-z0-9._%+-]*@oracle\.com  
                    • .*@oracle\.com |
| Subject           | Email subjects with string AutoReply:  
                    • ^Auto Reply: [A-Za-z0-9._%+-]*  
                    • ^Auto Reply.* |

**Related Topics**
- How Inbound Messages Are Processed
- Overview of Inbound Message Filters
- Create an Inbound Message Filter
- Update an Inbound Message Filter
- Update Existing Setup Data
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.

<table>
<thead>
<tr>
<th>Inbound Profile Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_ENABLE_INBOUND_EMAIL_DEFAULT_PROCESSING</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_INBOUND_EMAIL_ADDRESSES</td>
<td>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.</td>
</tr>
<tr>
<td>Note:</td>
<td>Try to avoid updating these inbound email addresses. If you update these inbound email addresses for some reason, you must complete the following steps:</td>
</tr>
<tr>
<td></td>
<td>• Update the corresponding forwarding rule.</td>
</tr>
<tr>
<td></td>
<td>• Ensure that you register the updated inbound email addresses as access points for inbound email.</td>
</tr>
<tr>
<td></td>
<td>For more information, see &quot;Register Access Points for Inbound Email&quot;.</td>
</tr>
<tr>
<td>SVC_INBOUND_ENABLE_INLINE_ATTACHMENTS</td>
<td>Enables the display of images inline within the SR messages in the UI. The default value is Yes.</td>
</tr>
<tr>
<td>SVC_INBOUND_EMAIL_MAX_ATTACH_SIZE</td>
<td>Indicates the maximum size in MB of attachments that are permitted in an inbound email. The default value is 10 MB.</td>
</tr>
<tr>
<td>Note:</td>
<td>• The maximum limit for the email size is 15 MB. Email size includes email headers, attachments, and the email content.</td>
</tr>
<tr>
<td></td>
<td>• 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.</td>
</tr>
</tbody>
</table>
### Inbound Profile Options

<table>
<thead>
<tr>
<th>Inbound Profile Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_INBOUND_MESSAGE_BATCH_SIZE</td>
<td>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. The default value is 10.</td>
</tr>
<tr>
<td>SVC_EMAIL_PROCESS_UNKNOWN_CUST</td>
<td>Indicates whether an SR must be created for emails sent by unknown customers.</td>
</tr>
<tr>
<td>SVC_ENABLE_INBOUND_EMAIL_ACKNOWLEDGEMENT</td>
<td>Indicates whether an acknowledgment must be sent for an incoming email.</td>
</tr>
<tr>
<td>SVC_INBOUND_ACK_EMAIL_LIMIT_PER_USER</td>
<td>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. The default value is 3. <strong>Note:</strong> 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. This profile option also helps to prevent the creation of infinite email loops. For more information, see &quot;How can I detect and prevent email loops?&quot;</td>
</tr>
<tr>
<td>SVC_INBOUND_ACK_EMAIL_TIME_INTERVAL</td>
<td>Specifies the time interval for which the limit check is applied for the maximum number of emails to be sent to a user. This means that only the maximum number of emails specified in the SVC_INBOUND_ACK_EMAIL_LIMIT_PER_USER profile can be sent to one user in this time interval. The default value is 60 minutes. <strong>Note:</strong> 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. This profile option also helps to prevent the creation of infinite email loops. For more information, see &quot;How can I detect and prevent email loops?&quot;</td>
</tr>
<tr>
<td>SVC_INBOUND_EMAIL_PATTERN_TO_STOP_ACK</td>
<td>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 postmaster@.*.oraclecloud.com.</td>
</tr>
<tr>
<td>ORA_SVC_ENABLE_FAILED_INBOUND_MESSAGE_PROCESSING</td>
<td>Enables the automatic processing of inbound messages that weren't processed earlier because of internal issues. The default value is Yes. To stop the retrieval of unprocessed messages at any time, you can set the value to No.</td>
</tr>
</tbody>
</table>
Inbound Profile Options | Description
--- | ---
ORA_SVC_ADD_FIRST_ATTACHMENT_TO_SR_MESSAGE | 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. The default value is No.

ORA_SVC_ENABLE_INBOUND_INLINE_ATTACHMENT_CATEGORY | 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.

When it's set to Yes:

- Documents received as attachments to inbound emails are included in the SR attachments.
- Images such as logos in the sender's signature and inline images aren't included in the SR attachments.

**Note:**
When you set this value to Yes, the ORA_SVC_ADD_FIRST_ATTACHMENT_TO_SR_MESSAGE profile option is automatically set to Yes.

ORA_SVC_INBOUND_MSG_LAST_REPROCESSING_DAYS | Specifies the number of days previous to the current date since when the failed inbound messages are to be reprocessed. The default value is 1.

ORA_SVC_ENABLE_INBOUND_PARTIAL_STATUSES_FOR_REPROCESSING | Enables the reprocessing of unprocessed inbound emails from the past. The default value is No.

When it's enabled, reprocessing starts from the last point where the processing stopped earlier.

Configure the outbound profile options for CRM as specified in the following table.

Outbound Profile Options | Description
--- | ---
SVC_OUTBOUND_EMAIL_FROM | Indicates the From email that's used for sending outbound emails to customers. The default value is noreply@oracle.com. You must set the value to the no reply address for your company to prevent auto-replies from creating unintended SRs.

This profile option can have the no reply email address with or without the display name. Example without display name: noreply@mycompanysdomain.com. Example with display name: Acme Support <noreply@mycompanysdomain.com>. If the profile option value doesn't contain a display name, the display name of the email channel is used in the From address.
<table>
<thead>
<tr>
<th>Outbound Profile Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SVC_SR_FORWARD_TEMPLATE_NAME</strong></td>
<td>Indicates the email template name for SR messages of type Forward.</td>
</tr>
<tr>
<td><strong>SVC_SR_RESPONSE_TEMPLATE_NAME</strong></td>
<td>Indicates the email template name for SR messages of type Response.</td>
</tr>
<tr>
<td><strong>SVC_SR_SYSTEM_RESPONSE_TEMPLATE_NAME</strong></td>
<td>Indicates the template name for SR messages of type System Response.</td>
</tr>
</tbody>
</table>
| **ORA_SVC_SR_EMAIL_ATT_SIZE** | 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. The default value is 10 MB. | **Note:**
- 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.
- Use this profile option to restrict the email attachment size such that the total email size doesn’t exceed 15 MB. |
| **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. |

Configure the outbound profile options for HR Help Desk, as specified in the following table.

*Note:*
Let’s say you set the value of this profile option as your support email ID such as support@mycompanydomain.com. If your From email address isn’t displayed in your email received by your customer, then you would receive a verification email at support@mycompanydomain.com. You must follow the instructions in that email to verify the account. If you don’t have access to the inbox for support@mycompanydomain.com, then you must do one of the following:

- Contact Oracle support to get your email account verified.
- 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.
### Outbound Profile Options

| **SVC_OUTBOUND_EMAIL_FROM** | Indicates the From email that’s used for sending outbound emails to customers. The default value is noreply@oracle.com. You must set the value to the no reply address for your company to prevent auto-replies from creating unintended SRs.

This profile option can have the no reply email address with or without the display name. Example without display name: noreply@mycompanydomain.com. Example with display name: Acme Support <noreply@mycompanydomain.com>. If the profile option value doesn’t contain a display name, the display name of the email channel is used in the From address.

**Note:**
Let’s say you set the value of this profile option as your support email ID such as support@mycompanydomain.com. If your From email address isn’t displayed in your email received by your customer, then you would receive a verification email at support@mycompanydomain.com. You must follow the instructions in that email to verify the account. If you don’t have access to the inbox for support@mycompanydomain.com, then you must do one of the following:

- Contact Oracle support to get your email account verified.
- 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.

| **SVC_SR_FORWARD_TEMPLATE_NAME_HRD** | Indicates the email template for the HR Help Desk Service Request Forward messages.

| **SVC_SR_RESPONSE_TEMPLATE_NAME_HRD** | Indicates the email template for HR Help Desk Service Request Response messages.

| **ORA_SVC_SR_EMAIL_ATT_SIZE** | 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.

The default value is 10 MB.

**Note:**
- 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.
- Use this profile option to restrict the email attachment size such that the total email size doesn’t exceed 15 MB.

| **SVC_SR_SYSTEM_RESPONSE_TEMPLATE_NAME_HRD** | Indicates the email template for HR Help Desk Service Request System Response messages.

| **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.
To configure email profile options:

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

Related Topics
- Configure an Email Channel
- Register Access Points for Inbound Email
- How can I detect and prevent email loops
- Update Existing Setup Data

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 Profile Options task.
5. On the Manage Profile Options 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.

Set the From Name in Outbound Emails

When you send emails to your customers, the From name in the 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 SVC_USERESOURCE_NAME_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.

   For more information about configuring the SPF policy, see "Configure an Email Channel".

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 select **Manage Profile Options**.

6. In the Search Results: Profile Options area of the Manage Profile Options page, click **New**.

7. In the Create Profile Option page, create a profile option by specifying the following values:

   a. **Profile Option Code**: SVC_USE_Resource_NAME_IN_OUTBOUND
   b. **Profile Display Name**: Use resource name as From name in outbound emails.
   c. **Application**: Service
   d. **Module**: Service
   e. **Description**: Specify that the resource name must be used as the From name in emails sent to customers.
   f. **SQL Validation**: SELECT meaning, lookup_code FROM Fnd_lookups WHERE lookup_type = 'YES_NO' AND enabled_flag = 'Y'

8. Save the record.

9. On the Manage Profile Options page, navigate to the Profile Options area.

10. Ensure that the row with the SVC_USERESOURCE_NAME_IN_OUTBOUND profile option is selected.

11. In the Profile Option Levels area, select the respective check boxes for the Site **Level** so that it’s enabled and updatable.

12. Click **Save and Close**.

13. Search for and select **Manage Administrator Profile Values**.

14. Navigate to the Search area of the Manage Administrator Profile Values page.

   a. In the **Profile Option Code** field, enter SVC_USERESOURCE_NAME_IN_OUTBOUND and click **Search**.
   b. In the Profile Options area, select the row that has the **SVC_USERESOURCE_NAME_IN_OUTBOUND** Profile Option Code.
   c. In the Profile Values area, click **New**.
   d. In the **Profile Level** field, select **Site**.
   e. From the **Profile Value** drop-down list for **Site**, select **Yes**.
   f. Click **Save**.

**Related Topics**

- Configure an Email Channel

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**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. For more information, see the Oracle Applications Cloud Configuring Applications Using Application Composer guide.
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 B2B Service site>/service/faces/FuseOverview?
   fndGlobalItemNodeid=itemNode_service_service_requests&pSrNumber=<SR Number>`.
   For example, `https://company123.mycompanydomain.com:10616/service/faces/FuseOverview?
   fndGlobalItemNodeid=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.

**Related Topics**
- Create and Manage Email Templates

## 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.

If you have deployed CRM, the following predefined messages are provided:

- **SVC_EMAIL_ACK_FOR_KNOWN_CUST**
If you have deployed HR Help Desk, the following predefined messages are provided:

- 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. Repeat steps 11 to 13 for each row 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.

Enable Deep Links to KM Articles in Outbound Emails to Open in DCS

When your service agents reply to customers by email, they may sometimes need to add links to Knowledge Management (KM) articles. These articles can help resolve the issue faced by the customers in that service request (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 Digital Customer Service (DCS) portal.

Your customers typically have access to one or more DCS portals. The DCS portals provide them access to their SRs and relevant knowledge articles through a web interface. They may use multiple DCS portals for various reasons. For example, customers often use different DCS portals for different BUs.

Here's what you need to do to convert the internal links to external links that open in the DCS portal:

- Enable the SVC_ENABLE_DEEPLINKS_IN_OUTBOUND_EMAIL profile option. For more information, see "Configure Profile Options for Inbound and Outbound Email".
• Use the Manage Service Request Dynamic Links task to configure the DCS URL as described in the following table.

This table shows how the links work, depending on how the agent links to the article.

<table>
<thead>
<tr>
<th>Type of link created to the KM article</th>
<th>What to append to the DCS URL to make the link work</th>
<th>How the link works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article link format:</td>
<td>? kmContentId={0}&amp;page=shell&amp;shell=knowledge-article</td>
<td>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. The article opens in the DCS portal in a separate nested tab.</td>
</tr>
<tr>
<td>When the agent uses either the &quot;Insert as link&quot; in RHP or the &quot;Insert Knowledge&quot; button KM application.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge article format:</td>
<td>? kmExternalId={0}&amp;page=shell&amp;shell=knowledge-article</td>
<td>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. The article opens in the DCS portal in a separate nested tab.</td>
</tr>
<tr>
<td>When the agent composes a message and provides a reference to a KM article. For example, if he types in the text FAQ1234, this text is linked in the email message.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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 DCS:

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 DCS portals 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 **Digital Customer Service URL** field, do the following:
   
   a. Enter the Digital Customer Service 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 **Digital Customer Service URL** field, do the following:

   a. Enter the Digital Customer Service 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**.

---

### 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**
- Validate Your Inbound and Outbound Email Setup
- Configure an Email Channel
Validate Your Inbound and Outbound Email Setup

You can verify your email channel 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 more information, see the remaining topics in this section.
   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:
   - **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. For more information about registering access points, see "Register Access Points for Inbound Email".

5. Click Reset to clear the Recipient field and all the messages related to the recipient.

Related Topics
- Overview of Access Point Setup for Inbound Emails
- Configure an Email Channel

Register 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. You must also unregister the old email address. You can also register additional email addresses as access points. For more information about the SVC_INBOUND_EMAIL_ADDRESSES profile option, see "Configure an Email Channel".

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, the servers must be restarted to reflect the registering or unregistering of access points. You must contact Oracle Support for restarting the servers.
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. For more information about validations other than the access point, see "Validate Your Inbound and Outbound Email Setup".
   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.

Overview of Times Displayed for the Access Points

This table describes the meaning of the different times displayed for each email address.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Read Time</td>
<td>When a time is displayed in this column, and the other two columns are blank, this indicates the following:</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Last Successful Read Time</td>
<td>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. The UMS reads the email from the inbox and delivers it to the access point, but the scheduled job hasn't run. Maps to the DELIVERY_TO_CLIENT_PENDING status of the UMS server.</td>
</tr>
<tr>
<td>Last Successful Process Time</td>
<td>Indicates the last time when the email was read by the scheduled inbound poll job. Maps to the DELIVERY_TO_CLIENT_SUCCESS status of the UMS server.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>No.</th>
<th>Access Point</th>
<th>Last Read Time</th>
<th>Last Successful Read Time</th>
<th>Last Successful Process Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><a href="mailto:inbound_email1@oracle.com">inbound_email1@oracle.com</a></td>
<td>7/17/2018 3:00 a.m.</td>
<td>7/17/2018 3:06 a.m.</td>
<td>7/17/2018 3:06 a.m.</td>
</tr>
<tr>
<td>2.</td>
<td><a href="mailto:inbound_email2@oracle.com">inbound_email2@oracle.com</a></td>
<td>7/19/2018 7:30 a.m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td><a href="mailto:inbound_email3@oracle.com">inbound_email3@oracle.com</a></td>
<td>7/19/2018 7:36 a.m.</td>
<td>7/18/2018 7:36 a.m.</td>
<td>7/18/2018 7:36 a.m.</td>
</tr>
<tr>
<td>4.</td>
<td><a href="mailto:inbound_email4@oracle.com">inbound_email4@oracle.com</a></td>
<td>7/19/2018 7:36 a.m.</td>
<td>7/19/2018 7:36 a.m.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td><a href="mailto:inbound_email5@oracle.com">inbound_email5@oracle.com</a></td>
<td>7/19/2018 7:36 a.m.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Here's how you interpret the above examples of times displayed for the access points in the Access Point Setup region:

<table>
<thead>
<tr>
<th>Possible scenarios</th>
<th>What this means</th>
<th>What you need to do</th>
</tr>
</thead>
</table>
| inbound_email1@oracle.com in the previous Table:  
  - Last Read Time has a value.  
  - Last Successful Read Time has a value. | The process works correctly without any issues. | You don't need to do anything. |
<table>
<thead>
<tr>
<th>Possible scenarios</th>
<th>What this means</th>
<th>What you need to do</th>
</tr>
</thead>
</table>
| • Last Successful Process Time has a value.  
  • One of the following conditions is satisfied:  
  o All the values are synchronized.  
  o The Last Successful Read Time and Last Successful process time values aren't earlier than the Last Read Time. | An email is read by the UMS server, but the email isn't delivered to the access point. | Do the following: |
| | | 1. Starting from the Last Successful Process Time, verify till the current time and see if any Last Successful Read Time exists. |
| | | o For inbound_email2@oracle.com, 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.  
  o For inbound_email3@oracle.com, 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.  
| | Note: After you register the access point, emails are successfully delivered to the access point. | 2. 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".  
  3. Register the access point. |
| inbound_email2@oracle.com and inbound_email3@oracle.com in the previous table:  
One of the following conditions is satisfied:  
• Last Read Time is later than the Last Successful Read Time.  
• Last Read Time has a value, but Last Successful Read Time and Last Successful Process Time are blank. | | |
| inbound_email4@oracle.com in the previous table:  
Last Successful Process Time is blank. | The scheduled inbound poll job has never received an email. | Do the following: |
| | | 1. Check whether the inbound poll job called Retrieve Inbound Email Messages is scheduled or if an error is occurring.  
  2. If the job isn't scheduled, then schedule a new job by going to Scheduled Processes from the menu in the application. |
| inbound_email5@oracle.com in the previous Table:  
All the columns are blank. | The UMS is unable to read emails from your inbox either because the UMS setup isn't done or the UMS configuration is wrong. | Do the following: |
| | | 1. Verify whether the UMS setup is completed. Complete the setup if required.  
  2. Verify whether the UMS configuration is correct. Correct the configuration if required. |
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:

<table>
<thead>
<tr>
<th>How the Times Are Displayed for an Access Point</th>
<th>What this indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>One of the following conditions is true:</td>
<td>The access point is probably not registered and you may be losing emails.</td>
</tr>
<tr>
<td>• Only the Last Read Time has a value and the other columns are blank.</td>
<td></td>
</tr>
<tr>
<td>• The values in other columns are earlier than the value in Last Read Time.</td>
<td></td>
</tr>
<tr>
<td>The Last Successful Process Time is blank or earlier than the Last Successful Read time.</td>
<td>The emails aren’t being processed by the inbound scheduled job.</td>
</tr>
<tr>
<td>The difference between the times listed in all the three columns is less.</td>
<td>The access point is working fine.</td>
</tr>
</tbody>
</table>

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:
   - Message ID
   - Recipient
   - Date
   - Status

5. View the details and take suitable action.

**Example of a Scenario Where Inbound Email Fails**

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.externservice@oraclecloud.com`. The email address `mycompanydomain.externservice@oraclecloud.com` is registered as an access point. So, the inbound emails work fine.

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.externservice@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**

**Configure a Job to Process Inbound Emails**

You can configure a new job to retrieve emails at regular intervals, based on the specified frequency.

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**.

The **Process Details** dialog box is displayed.
6. Click **Advanced**.
7. In the **Schedule** tab, in the **Run** options, select the **Using a schedule** option.

For more information about scheduled processes, see the *Oracle Applications Cloud Using Common Features* guide.
8. Select **Frequency** and specify a **Start Date**.
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.

**Related Topics**
- Overview of Scheduled Processes
- Submit Scheduled Processes and Process Sets

---

**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 they view the email preview. So they can review the past conversations in the thread and write their latest reply 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**
- Configure Profile Options to Display Email Thread
- Modify Email Templates to Display the Email Thread
- Define Email Templates
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.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_EMAIL_ENABLE_PAST_CONVERSATIONS</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_EMAIL_NO_OF_PAST_CONVERSATIONS</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_EMAIL_PAST_CONVERSATION_START_MARKER</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_EMAIL_PAST_CONVERSATION_END_MARKER</td>
<td>Indicates the end 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.</td>
</tr>
</tbody>
</table>
| ORA_SVC_EMAIL_DEFAULT_LANGUAGE                       | Indicates the default language to format outbound emails and parse inbound emails. 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. 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:  
  - SVC_EMAIL_PAST_CONVERSATION_START_MARKER: [##Send your response as a reply to the above mail##]  
  - SVC_EMAIL_PAST_CONVERSATION_END_MARKER: [##End of conversation##] |
| SVC_EMAIL_PAST_CONVERSATION_MSG_TYPES               | Indicates the types of messages to include in the email thread. You must specify the codes for the message types, separated by commas. 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. The default value is ORA_SVC_CUSTOMER_ENTRY. |
To add codes for other message types, see the "Search for Lookup Codes of Message Types" section at the end of this topic.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **ORA_SVC_EMAIL_PAST_CONVERSATION_SHOW_MSG_TYPES** | Indicates whether to include the message type in past conversations.  
The default value is Y.  
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.  
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. |
| **ORA_SVC_EMAIL_DEFAULT_PAST_CONVERSATIONS_IN_OUTBOUND_MSGS** | Indicates whether to enable past conversations by default in outbound messages.  
For more information, see Configure Email Templates to Control When to Include Past Conversations. |
| **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.  
For more information, see Include Messages of Only Some Channel Types in Past Conversations. |

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.

**Related Topics**
- Display Email Thread of Past Conversations
- Modify Email Templates to Display the Email Thread
- Define Email Templates

**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 understands the context clearly. 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 preview, the email thread is included in the preview. This helps them to verify the flow and make changes as required, so that the customer understands the message clearly.

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
• Configure Profile Options to Display Email Thread
• 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.

<table>
<thead>
<tr>
<th>Value of ORA_SVC_EMAIL_DEFAULT_PAST_CONVERSATIONS_IN_OUTBOUND_MSGS Profile Option</th>
<th>#PastConversation# tag present?</th>
<th>Past Conversations included in outbound message?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Included</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Included</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Included</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>Not Included</td>
</tr>
</tbody>
</table>

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. And all of them become SR messages. But you may want the past conversations to include messages of only some channel types such as Email. You can select those specific channel types by configuring the following 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.

<table>
<thead>
<tr>
<th>Profile option value</th>
<th>Messages from the following channel types are included in the past conversations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>blank</td>
<td>All channel types such as Email, Web, and Chat</td>
</tr>
<tr>
<td>ORA_SVC_EMAIL</td>
<td>Email only</td>
</tr>
<tr>
<td>ORA_SVC_EMAIL, ORA_SVC_CHAT</td>
<td>Email and Chat only</td>
</tr>
<tr>
<td>ORA_SVC_EMAIL, ORA_SVC_WEB</td>
<td>Email and Web only</td>
</tr>
</tbody>
</table>
Purge Inbound Email Messages

Purge Inbound Email Messages Periodically

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 for some reason. 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.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_INBOUND_MSG_RETENTION_DAYS</td>
<td>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. The default value is 30.</td>
</tr>
<tr>
<td>SVC_INBOUND_ENABLE_FAILED_MESSAGE_PURGE</td>
<td>Indicates whether to enable purging of inbound email messages that fail or aren’t processed successfully. The default value is No. When the value is No, inbound email messages that fail or aren’t processed successfully, are retained. 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:</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_SVC_MAX_DURATION_FOR_PENDING_EMAIL</td>
<td>Indicates the maximum duration in hours for which an inbound email can remain in the pending status. The default value is 6 hours. 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.</td>
</tr>
</tbody>
</table>

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

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 the email is regarding an existing SR, then the email content is added as a message to the relevant SR.

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
- 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). And 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
- 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.
8 Slack Channels

Overview

Use the Slack Channel for Collaboration

Slack is a team communication tool that facilitates synchronous communication across different devices. Regardless of whether the team is co-located or distributed, Slack provides an effective communication channel that's easy to use. 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 B2B 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 Oracle CX Sales and B2B Service

Overview of Setting Up a Slack Channel for Oracle CX Sales and B2B Service

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 Oracle CX Sales and B2B Service: 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.

<table>
<thead>
<tr>
<th>Step no.</th>
<th>Name of topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Install the Oracle CX Sales and Service App from the Slack Marketplace</td>
</tr>
<tr>
<td>2</td>
<td>Update Your Slack App Credentials in FSM</td>
</tr>
<tr>
<td>3</td>
<td>Create a Slack Channel in Oracle CX Sales and B2B Service</td>
</tr>
<tr>
<td>4</td>
<td>Enable Notifications to Slack</td>
</tr>
<tr>
<td>5</td>
<td>Add a Slack Contact Point for Your Sales Representatives Who Use Slack (Required for your sales application, Not Required for your service application)</td>
</tr>
<tr>
<td>6</td>
<td>Set Up a Scheduled Process to Synchronize Slack Users (Required for your service application, Not Required for your sales application)</td>
</tr>
</tbody>
</table>

Install the Oracle CX Sales and B2B Service App from the Slack Marketplace

You can install a preconfigured Oracle CX Sales and Service Slack app to your workspace.

1. Navigate to: slack.com/apps
2. Ensure that you're signed in to your Slack workspace.
4. Search for and click Oracle CX Sales and Service.
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 Oracle CX Sales and Service web address to: https://pod_name:443

   Here, pod_name is the name of the Oracle CX Sales and B2B 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 FSM with credentials of your Slack app.
Update Your Slack App Credentials in FSM

To update the credentials of your Slack app in the Functional Setup Manager (FSM) in Oracle CX Sales and B2B Service:

1. Sign in to Oracle CX Sales and B2B Service 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.
   
   Note: This is the same text that you copied in the last step of the Install the Oracle CX Sales and B2B Service App from the Slack Marketplace topic.
6. Click Save and Close.

Create a Slack Channel in Oracle CX Sales and B2B Service

This is a required step from "How You Set Up a Slack Channel for Oracle CX Sales and B2B Service".

For each of your Slack workspaces, you must create a Slack channel in Oracle CX Sales and B2B Service. So if you have multiple Slack workspaces, you have multiple Slack channels in Oracle CX Sales and B2B Service.

To create a Slack channel in Oracle CX Sales and B2B Service:

1. Sign in to Oracle CX Sales and B2B Service 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:
   - The Stripe Code is set as CRM by default.
   - Select the Purpose as Collaboration.
   - Select the Channel Type as Slack.
   - 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 Oracle CX Sales and B2B 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 Oracle CX Sales and B2B Service: 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 Oracle CX Sales and B2B Service".

All outbound messages from Oracle CX Sales and B2B 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**
- Enable Notifications for Service Requests
- How You Set Up a Slack Channel for Oracle CX Sales and B2B Service
- 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 Oracle CX Sales and B2B Service".

(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 CX Sales and displayed in Slack. For this to happen, you must add a Slack contact point in CX 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 CX Sales.

1. In the Navigator for CX 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 CX Sales is identified based on his Slack user ID. And the query is executed on his behalf. The information from his record in CX Sales is then displayed in Slack.

Related Topics
- How You Set Up a Slack Channel for Oracle CX Sales and B2B Service
- 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 Oracle CX Sales and B2B Service". (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 Oracle B2B Service, 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 Oracle CX Sales and B2B Service
- Use the Slack Channel for Collaboration

Set Up a Slack Channel: Method 2

How You Set Up a Slack Channel for Oracle CX Sales and B2B Service: 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.
# Slack Channels

<table>
<thead>
<tr>
<th>Step no.</th>
<th>Name of topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Create a Slack App for Oracle CX Sales and B2B Service</td>
</tr>
<tr>
<td>2</td>
<td>Update the Display Information for Your Slack App</td>
</tr>
<tr>
<td>3</td>
<td>Add a Redirect URL for Your Slack App</td>
</tr>
<tr>
<td>4</td>
<td>Add Scopes to Your Slack App</td>
</tr>
<tr>
<td>5</td>
<td>Set Up Interactive Components for Your Slack App</td>
</tr>
<tr>
<td>6</td>
<td>Set Up Slash Commands in Slack for Opportunities, Leads, and Accounts (Required for your sales application, Not Required for your service application)</td>
</tr>
<tr>
<td>7</td>
<td>Update FSM with Credentials of Your Slack App</td>
</tr>
<tr>
<td>8</td>
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</tr>
</tbody>
</table>

## Create a Slack App for Oracle CX Sales and B2B Service

To create a Slack app for Oracle CX Sales and B2B Service:

1. Navigate to: [https://api.slack.com/apps](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 Oracle CX Sales and B2B Service integration to be deployed.
5. Click Create App.

**Related Topics**
- How You Set Up a Slack Channel for Oracle CX Sales and B2B Service
- Use the Slack Channel for Collaboration

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Oracle CX Service
Implementing B2B Service
Chapter 8
Slack Channels
Update the Display Information for Your Slack App

This is a required step from "How You Set Up a Slack Channel for Oracle CX Sales and B2B Service".

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 Oracle CX Sales and B2B Service
- 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 Oracle CX Sales and B2B Service".

After a Slack channel is authorized, the redirect URL is used by Slack to provide OAuth tokens to Oracle CX Sales and B2B 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 Oracle CX Sales and B2B Service instance provisioned for you.
4. Click Add.
5. Click Save URLs.

Related Topics
- How You Set Up a Slack Channel for Oracle CX Sales and B2B Service
- 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.

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:
   - channels:manage
   - channels:read
   - chat:write
   - chat:write.customize
   - chat:write.public
   - Commands
   - groups:read
   - groups:write
   - im:write
   - im:read
   - mpim:read
   - mpim:write
   - 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 Oracle CX Sales and B2B Service".

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 Oracle CX Sales and B2B 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 CX Sales and B2B 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 Oracle CX Sales and B2B Service".

(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 CX Sales on their different devices. With the integration of CX 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.

<table>
<thead>
<tr>
<th>Slash Command in Slack</th>
<th>What this command retrieves from Oracle CX Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ec-my-opportunities</td>
<td>Top five opportunities with the close date in the current quarter and owned by the sales representative who executes the command.</td>
</tr>
<tr>
<td>/ec-my-leads</td>
<td>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.</td>
</tr>
<tr>
<td>/ec-my-accounts</td>
<td>First five accounts owned by the sales representative who executes the command.</td>
</tr>
</tbody>
</table>

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 Oracle CX Sales and B2B 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 Oracle CX Sales and B2B 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 FSM with Credentials of Your Slack App

This is a required step from "How You Set Up a Slack Channel for Oracle CX Sales and B2B Service".

To update the Functional Setup Manager (FSM) in Oracle CX Sales and B2B Service 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 Oracle CX Sales and B2B Service 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.
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 Oracle CX Sales and B2B Service
- Use the Slack Channel for Collaboration

Create a Slack Channel in Oracle CX Sales and B2B Service

This is a required step from "How You Set Up a Slack Channel for Oracle CX Sales and B2B Service".

For each of your Slack workspaces, you must create a Slack channel in Oracle CX Sales and B2B Service. So if you have multiple Slack workspaces, you have multiple Slack channels in Oracle CX Sales and B2B Service.

To create a Slack channel in Oracle CX Sales and B2B Service:

1. Sign in to Oracle CX Sales and B2B Service 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:
   - The Stripe Code is set as CRM by default.
   - Select the Purpose as Collaboration.
Select the Channel Type as Slack.

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 Oracle CX Sales and B2B 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 Oracle CX Sales and B2B Service: 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 Oracle CX Sales and B2B Service".

All outbound messages from Oracle CX Sales and B2B 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

• Enable Notifications for Service Requests
• How You Set Up a Slack Channel for Oracle CX Sales and B2B Service
• 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 Oracle CX Sales and B2B Service".

(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 CX Sales and displayed in Slack. For this to happen, you must add a Slack
contact point in CX 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 CX Sales.

1. In the Navigator for CX 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 CX Sales is identified based on his Slack user ID. And the query is executed on his behalf. The information from his record in CX Sales is then displayed in Slack.

Related Topics
- How You Set Up a Slack Channel for Oracle CX Sales and B2B Service
- 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 Oracle CX Sales and B2B Service". (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 Oracle B2B Service, 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.
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.
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**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 Oracle CX Sales and B2B 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 Oracle CX Sales and B2B Service".
- 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.
10. Define your groovy trigger as described in "Examples of Groovy Scripts for Sending Notifications to Slack".

Related Topics
- Create a Slack Channel in Oracle CX Sales and B2B Service
- Enable Notifications for Service Requests
- 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 Oracle B2B 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:

```groovy
// 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.getAttributeIndexOf('CriticalFlag')
def oldValue = adf.oldValue.getAttribute(indexOfCF, oracle.jbo.server.EntityImpl.TRANSORIGINALVERSION)
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:

```groovy
// 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")
    adf.util.sendNotification(adf, map)
    println("Success") // For debugging purpose only
} catch (e) {
    throw new oracle.jbo.ValidationException('Failure: ' + e.getMessage())
}
```
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 B2B 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 B2B Service to Slack:

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 CX Sales and B2B 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.
5. Enter the appropriate user ID and password.

FAQs About Slack Integration

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 CX Sales and B2B Service 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
9 Chat

Configure Chat Profile Options

Chat profile options enable you to configure assignment and routing options for chat requests. You must configure the following chat profile options to enable various chat features.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_CHAT_OFFER_NOTIFICATION_TIMEOUT_VALUE</td>
<td>Specifies the number of seconds that lapse before the chat notification is automatically closed.</td>
</tr>
<tr>
<td>SVC_ENABLE_CHAT</td>
<td>Enables chat interactions.</td>
</tr>
<tr>
<td>SVC_CHAT_TRANSFER_TO_QUEUE Enabled</td>
<td>Enables transfer of a chat to a queue by an agent.</td>
</tr>
<tr>
<td>SVC_CHAT_IDLE_TIMEOUT</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_CHAT_WAIT_TIME_ENABLED</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_CHAT_ANONYMOUS_ACCESS Enabled</td>
<td>Enables anonymous access to chat for your customers. The default value is No.</td>
</tr>
<tr>
<td>SVC_CHAT_INLAYS_ACCESS_ENABLED</td>
<td>Enables access to the chat inlays to get the bootstrap configurations. The default value is No.</td>
</tr>
<tr>
<td>SVC_MCA_ENABLE ENGAGEMENT_SYNC</td>
<td>Enables synchronization of all engagements between your service application and Live Window, regardless of channel.</td>
</tr>
<tr>
<td>SVC_CHAT_CKEDITOR_ENABLED</td>
<td>Enables style formatting options in the Live Window chat panel.</td>
</tr>
<tr>
<td>SVC_CHAT_COBROWSE_ENABLED</td>
<td>Enables agents to request for a cobrowse session with a customer from the Live Window chat panel.</td>
</tr>
<tr>
<td>SVC_CHAT_TRANSCRIPT_PURGE Enabled</td>
<td>Enables purging of chat transcripts.</td>
</tr>
<tr>
<td>SVC_CHAT_TRANSCRIPT_PURGE INTERVAL</td>
<td>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.</td>
</tr>
<tr>
<td>SVC_CHAT_TRANSCRIPT_DELETE Enabled</td>
<td>Enables the Delete button in the chat transcript window.</td>
</tr>
<tr>
<td>Profile Option</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SVC_CHAT_TRANSCRIPT_PURGE_ITERATION_INTERVAL</td>
<td>Specifies the number of minutes between each iteration. The default value is 5 minutes.</td>
</tr>
<tr>
<td>SVC_CHAT_TRANSCRIPT_PURGE_BATCH_SIZE</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Note:** Ensure that the following privileges are included for the agents planning to use cobrowse:
- **Access Co-browse Feature:** Permits starting and using the cobrowse functionality.
- **Manage Co-browse Access:** Enables the availability setting for new cobrowse work.

To configure the chat profile options:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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:
   - SVC_CHAT_OFFER_NOTIFICATION_TIMEOUT_VALUE
   - SVC_CHAT_TRANSCRIPT_PURGE_INTERVAL
   - SVC_CHAT_TRANSCRIPT_PURGE_ITERATION_INTERVAL
   - SVC_CHAT_TRANSCRIPT_PURGE_BATCH_SIZE
5. Click **Save**.
6. Repeat the previous four steps for all the listed profile options.

**Note:** To use Chat inlays, you must configure additional profile options. For more information, see "Configure Chat Inlay" in Oracle CX Service Implementing Digital Customer Service.

**Related Topics**
- Enable Omnichannel
- Update Existing Setup Data
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:** 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

- Enable Omnichannel
- 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 is associated to a chat interaction, the wrap up, along with a link to the chat transcript is written to the SR message. This doesn't happen unless wrap up is enabled, though.

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. To enable the transcript, enable wrap-up functionality do the following:

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

Related Topics
- Configure Call Flow Parameters
- Overview of Cross-Channel Interactions

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

You may have some customers in the European Union (EU). And this means they're governed by 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
- Configure Chat Profile Options
- Delete Chat Transcripts to Comply with General Data Protection Regulation (GDPR)
10 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 you can track your SR lifecycle on the service application.

To use the social channel, you have to integrate B2B 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.

   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

B2B 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.

<table>
<thead>
<tr>
<th>Social Network Monitoring Scenarios</th>
<th>Facebook</th>
<th>Twitter</th>
<th>Instagram</th>
<th>Weibo</th>
<th>WeChat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor public messages</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Monitor comments and replies on public messages</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Monitor private messages</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Monitor replies to private messages</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Social Response Scenarios</th>
<th>Facebook</th>
<th>Twitter</th>
<th>Instagram</th>
<th>Weibo</th>
<th>WeChat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reply to public messages</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Reply to comments and public messages</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
And this table shows features supported for other scenarios:

<table>
<thead>
<tr>
<th>Other Scenarios</th>
<th>Facebook</th>
<th>Twitter</th>
<th>Instagram</th>
<th>Weibo</th>
<th>WeChat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Social Cloud conversation with SR reference number for a social post</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Update Social Cloud conversation when an SR is resolved</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Update Social Cloud conversation when an SR status changes from Resolved to In Progress</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Fields Mapped between Social Cloud and B2B 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 B2B Service.

<table>
<thead>
<tr>
<th>B2B Service Field</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Type</td>
<td>Social</td>
<td>All social posts</td>
</tr>
<tr>
<td>Channel</td>
<td>Name of the social network where the customer posted the message (for example, Facebook)</td>
<td>Social Cloud</td>
</tr>
<tr>
<td>SR Title</td>
<td>First 400 characters of the social post content</td>
<td>Social Cloud</td>
</tr>
<tr>
<td>Problem Description</td>
<td>First 1000 characters of the social post content</td>
<td>Social Cloud</td>
</tr>
<tr>
<td>Primary Contact</td>
<td>If a contact point is found for the social post author, the primary contact is set in the SR</td>
<td>Auto populated by B2B Service</td>
</tr>
<tr>
<td>SR Account</td>
<td>The primary account associated with the primary contact of the SR (if exists)</td>
<td>Auto populated by B2B Service</td>
</tr>
</tbody>
</table>
### B2B Service Field

<table>
<thead>
<tr>
<th>B2B Service Field</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR Creation Date</td>
<td>Current date</td>
<td>Auto populated by B2B Service</td>
</tr>
<tr>
<td>Service Request Message</td>
<td>Every message or post in the conversation with the customer is created as an SR message</td>
<td>Social Cloud post content</td>
</tr>
</tbody>
</table>

#### Related Topics
- 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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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.
   h. To deactivate the newly created channel, clear the **Active** option. It's active by default.
   i. Click **Save**.

4. Create a new channel for every social network that you want to use.
5. Save the social channels.
Integrate Social Channels

How You Integrate B2B Service with Social Cloud

After you create a social channel in the service application, you have to then integrate B2B Service with Oracle Social Cloud to use that social channel. Here are the steps:

1. Create an integration user with privileges to perform the integration with Social Cloud.
2. Import the integration package from Oracle Marketplace.
5. Activate the integrations.
7. Set up CSF SOA key after activating the integrations.

The steps are covered in detail in the topics that follow.

Create an Integration User for the Social Channel

To integrate B2B Service with Social Cloud, Oracle recommends that you create a user specifically for the integration. The integration user must be able to call the B2B Service service catalog or event catalog web services from Integration Cloud.

Here’s how you create an integration user along with information on what privileges you provide to what role:

The following procedure describes how to create an integration user and what privileges to provide to the role:

1. Sign in to the 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:

<table>
<thead>
<tr>
<th>Field</th>
<th>What you enter or choose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name</td>
<td>The last name of the user.</td>
</tr>
<tr>
<td>Email</td>
<td>The user’s valid email address.</td>
</tr>
<tr>
<td>Hire Date</td>
<td>Choose today’s date.</td>
</tr>
<tr>
<td>User Name</td>
<td>The user name of the user.</td>
</tr>
</tbody>
</table>
### Field | What you enter or choose
---|---
Person Type | Choose Employee from the drop-down list.
Legal Employer | Choose 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:
   - 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.
   - Customer Service Representative
   - Resource

### Import the Integration Package for the Social Channel

After setting up B2B Service and creating the integration user with the required privileges, you then set up the Integration Cloud integration package.


The Integration Cloud integration package supports the following:
- Inbound
  - Create an SR in B2B 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 B2B Service and Social Cloud Integration**

You must import the SSL certificates before you configure and activate the connections.


**Activate the Connections to B2B Service and Social Cloud**


**Configure the Connection to the B2B Service Instance**

Here's how you configure the connections to your B2B 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 B2B Service is listed on the connections page.
4. Click **Oracle B2B 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 B2B Service instance
   - (Optional) OSC Event Catalog URL: Enter the event catalog URL on your B2B Service instance
6. Click **OK**.
7. Click **Configure Security** and enter the following information:
   - **Security Policy**: Enter *Username Password Token*.
   - **User name**: Enter the integration user name.
   - **Password**: Enter the password for the integration user.
   - **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:

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
</table>
| Connection Properties | • Connection Type: REST API Base URL  
 |                     | o TLS Version: Not Applicable  
 |                     | o Connection URL: https://srm-api-temp.slc05hpo.oracle.com  
| Security            | • Security Policy: OAuth Custom Three Legged Flow  
 |                     | o Authorization Request: Enter the authorization request URL. The URL must have the following parameters defined:  
 |                     | - scope=engage  
 |                     | - response_type=code  
 |                     | - redirect_uri=${redirect_uri}  
 |                     | - To get your client ID, see Register your Client Application for procedure.  
 |                     | o Access Token Request: Enter the access token request with the correct URL, client ID, and client secret. For example, a sample access token request looks like this:  
 |                     | -X POST -H 'Content-Type: application/x-www-form-urlencoded' -d 'false' 'https://gatekeeper.srm-staging.pp1.oraclecloud.com/oauth/token?code=${auth_code}&client_id=a9a5fb2b482545172fd6101e3c16cc1e9ba140742aa630b6c3e9055a89e6e9a2&client_secret=de969db4808a87746dbaf1fa648d552aa6dd1927da5ed2ee731c7ad62ee61b19&redirect_uri=${redirect_uri}&grant_type=authorization_code'  
 |                     | o Refresh Token Request: Enter the refresh token request with the URL, refresh token, client ID, and client secret. For example, a sample refresh token request looks like this:  
 |                     | -X POST -H 'Content-Type: application/x-www-form-urlencoded' -d 'false' 'https://gatekeeper.srm-staging.pp1.oraclecloud.com/oauth/token?refresh_token=${refresh_token}&client_id=a9a5fb2b482545172fd6101e3c16cc1e9ba140742aa630b6c3e9055a89e6e9a2&client_secret=de969db4808a87746dbaf1fa648d552aa6dd1927da5ed2ee731c7ad62ee61b19&grant_type=refresh_token' |
4. Save the configuration and test the connection.

Activate the B2B Service to Social Cloud Integrations

After you configure your connections, you must then activate these integrations:

- **Social Cloud Conversation to B2B Service**
  
  This integration creates B2B Service social post records from Social Cloud conversation record and its related posts by mapping the object attributes of the two applications. B2B Service further processes the social posts to create service request and service request messages.
• **B2B Service Service Request to Social Cloud**
  This integration updates the Social Cloud conversation object with the service request details.

• **B2B Service Reply to Social Cloud**
  This integration updates the Social Cloud conversation with the response from B2B Service user to the social customer. Social Cloud in turn sends the response to the customer on the social network.

• **B2B Service Update SR to Social Cloud**
  This integration updates Social Cloud conversation with the B2B Service service request number.

• **B2B Service Sync SR to Social Cloud**
  This integration updates the Social Cloud conversation with the service request reference number from B2B Service. It’s called when a B2B 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.

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### 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 B2B 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 CSF key in Oracle SOA Composer. Oracle SOA Composer provides a runtime environment for creating domain value maps, approval management extensions, business rules, and composite sensors in deployed composites, using service-oriented architecture (SOA). For more information about Oracle SOA Suite, see 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:

```groovy
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:

```java
//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)
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 B2B 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 B2B 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:

```groovy
// 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;
    }
}
```
11 Interactions

Interactions

Overview of Interactions

An interaction is recorded when a communication occurs with customer contacts by means of any communication channel such as e-mail, phone, or text message. Web isn't a ready-to-use supported channel for Interactions. You can only create or update interactions using APIs. 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 e-mail. An inbound communication is initiated by a prospect or contact by means of inbound phone call or email.

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 an Account, Contact, Service Request, Activity, or Work Order. 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.

The Interaction History view subtab is only available on the Service Request, Account and Contact objects. You can use the Interaction History view to access past wrap up records.

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 property, 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 is 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.

<table>
<thead>
<tr>
<th>Cross-channel Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SVC_INTERACTION_AUTO_ASSOCIATION_ENABLE</strong></td>
<td>Enables automatic association of objects to an interaction. It is set to Off by default.</td>
</tr>
<tr>
<td><strong>SVC_INTERACTION_CREATION_DATE_INTERVAL_FOR_AUTO_ASSOCIATION</strong></td>
<td>Sets the period, in minutes, to go back from the current time while finding a potential interaction based on creation date</td>
</tr>
<tr>
<td><strong>SVC_INTERACTION_LAST_UPD_DATE_INTERVAL_FOR_AUTO_ASSOCIATION</strong></td>
<td>Sets the period, in minutes, to go back from the current time while finding a potential interaction based on last updated date.</td>
</tr>
</tbody>
</table>
| **SVC_INTERACTION_ENABLED_OBJECTS** (for service request) | • For Service Requests, set this to the value **SVC_SERVICE_REQUESTS**.  
  • For Activities, set this to the value **ZMM_ACTIVITIES**.  
  • For Opportunities, set this to the value **MOO_OPTY**.  
  • For Work Orders, set this to the value **SVC_WORK_ORDERS**.  
  • For Leads, set this to the value **MKL_LM_LEADS**. |

Note: 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.
Translate the Communication Channel Display Names

Translate Display Name of Communication Channels into Installed Languages

Let’s say you want to display the names of communication channels in the language of your installation. By default, the display name for each channel is the same in the base language and in all the installed languages. But it’s translatable. So you can provide language-specific display names in all the installed languages in the application.

To translate the display name of a communication channel into all the installed languages:

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

2. On the Service Channels page, in the Account Name column, click the link to the channel whose display name you want to translate.

   The Edit Channel window is displayed.

3. Click the Translation Editor.

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

4. Click the row for the first installed language.

5. In the Display Name field, specify the selected channel display name in the corresponding installed language.

6. Click OK.

7. Starting from step 2, repeat all the steps for each channel.
12 Computer Telephony Integration (CTI)

Overview of Computer Telephony Integration (CTI)

Computer telephony integration (CTI) enables integration of third party media toolbars with CX Sales and B2B 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 on the Digital Sales app and automatically view the caller's Contact record or Lead record.

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

Related Topics

- How You Configure the Media Toolbar
- How You Configure Screen Pop Pages
- Configure Screen Pop Pages

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.

**Related Topics**

- Overview of Computer Telephony Integration (CTI)

---

### 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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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:

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SVC_MCA_DISABLE_JWT</strong></td>
<td>Enables or disables the JSON Web Token generation.</td>
</tr>
<tr>
<td><strong>SVC_MCA_DISABLE_OUTBOUND_CONTACT_VERIFY</strong></td>
<td>Enables or Disables automatic display of contact verification screen for outbound calls. If enabled, it will override the call flow parameter configurations.</td>
</tr>
</tbody>
</table>
Profile Option | Description
--- | ---
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.

Note: For Digital Sales implementations, this setting must be enabled.

SVC_MCA_RECORD_ACTIVITIES_YN | Indicates whether activities must be logged for real time interactions.

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_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
- Set Profile Option Values
- Enter or Edit Translated Text

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 JWT 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.
<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_MCA_ENABLE_ENGAGEMENT_SYNC</td>
<td>Controls the in-focus chat interactions to be automatically associated to their screen popped tabs.</td>
</tr>
<tr>
<td>SVC_MCA_ENABLE_LIVE_WINDOW</td>
<td>Enables or disables the ability to launch the Live Window.</td>
</tr>
<tr>
<td>SVC_MCA_LIVE_WINDOW_PROPS</td>
<td>Defines the display properties used to launch Live Window</td>
</tr>
<tr>
<td>SVC_MCA_OVERRIDE_LIVE_WINDOW_LOC</td>
<td>Defines the ability to override the Live Window end point.</td>
</tr>
<tr>
<td>SVC_MCA_RECORD_ACTIVITIES_YN</td>
<td>Indicates whether activities must be logged for real time interactions.</td>
</tr>
<tr>
<td>SVC_MCA_RT_CHECK_EVENT_DISPATCH_INTERNAL_MS</td>
<td>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 support.</td>
</tr>
<tr>
<td>SVC_MCA_RT_EVENT_DISPATCH_MAX_RETRIES</td>
<td>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 support.</td>
</tr>
<tr>
<td>SVC_MCA_SHOW_CONTACT_ON_WRAP_UP</td>
<td>Indicates whether to show the contact information during the wrap up process.</td>
</tr>
</tbody>
</table>

**Related Topics**
- Set Profile Option Values
- Enter or Edit Translated Text

**MCA Lookups**

There are two MCA lookups which apply to both Chat and to Phone interactions.

The lookups are:

- ORA_SVC_MCA_COMM_REASON_CD
- ORA_SVC_MCA_RESOLUTION_CD

You access these lookups using the Manage Standard Lookups in Functional Setup Manager. If you want to add additional values to the default values of either lookup, use this task.

The following table lists the default values of each lookup.

<table>
<thead>
<tr>
<th>Lookup</th>
<th>Default Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_SVC_MCA_COMM_REASON_CD</td>
<td>General question</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Lookup</td>
<td>Default Values</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• Technical Issue</td>
</tr>
<tr>
<td>ORA_SVC_MCA_RESOLUTION_CD</td>
<td>• Left message</td>
</tr>
<tr>
<td></td>
<td>• Positive outcome</td>
</tr>
<tr>
<td></td>
<td>• Provided information</td>
</tr>
<tr>
<td></td>
<td>• Answered question</td>
</tr>
<tr>
<td></td>
<td>• Call answered</td>
</tr>
<tr>
<td></td>
<td>• Known Issue</td>
</tr>
<tr>
<td></td>
<td>• Documentation issue</td>
</tr>
<tr>
<td></td>
<td>• At risk</td>
</tr>
</tbody>
</table>

### 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:
   - Offering: Service
   - Functional Area: Communication Channels
2. Go to the relevant task, and click the **Actions** menu next to it. The tasks you can perform are:
   - Configure Call Flow Parameters
   - Manage Application Classifications
   - Manage Media Toolbar Configuration
   - 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 You Configure Screen Pop Pages
- How You Configure the Media Toolbar
- Overview of Computer Telephony Integration (CTI)
- 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.

The media toolbar is displayed in the following ways:

- 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
- Overview of Computer Telephony Integration (CTI)
- Configure Business Objects
- How You 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. 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:


10. To configure a horizontal toolbar:

   a. Enter the URL of the toolbar. This URL is derived from the third-party application that you have installed to integrate the toolbar.
   b. To view the toolbar as it appears after configuration, click Preview.
   c. Enter a toolbar height that's not more than 70 pixels.

   Note: You can implement a Headless Toolbar (or a hidden toolbar) by setting the toolbar height to 0. Any third-party applications that you have installed to integrate the toolbar will provide your users media channel control capabilities.

11. You can optionally add a vertical toolbar. To add a vertical toolbar:

   a. Select On.
   b. Enter a URL based on the third-party toolbar application.
   c. Enter a height and a width that aren't more than 470 pixels each.

12. To display the incoming call notification:

   a. Select On.
   b. Enter the URL for the notification window.
   c. Enter a window height of maximum 180 pixels and a width of not more than 350 pixels.

13. Select the newly added toolbar from the list of toolbars and click Default to set the toolbar as a default one for all the enabled users.

14. Click Save or Save and Close.

Related Topics

- Configure Screen Pop Pages
- Overview of Computer Telephony Integration (CTI)
- Configure Business Objects
- How You Configure Screen Pop Pages
- Configure Live Window and Companion Tab for CTI
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:

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

### 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 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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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
• Overview of Computer Telephony Integration (CTI)
• How You Configure Screen Pop Pages
• Configure Screen Pop Pages
• Update Existing Setup Data

How You 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. Configuring the screen pop page has the advantage of expediting the call, while not having to ask the customer for basic information.

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. For more information about creating user-defined business objects using Application Composer, see Oracle Applications Cloud Configuring Applications Using Application Composer guide.

Configuring a screen pop page includes the following steps to be performed in Setup and Maintenance.

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:
   - Offering: Service
   - Functional Area: Communication Channels
   - 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 Oracle CX Extending CX Sales and B2B Service 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 Oracle CX Extending CX Sales and B2B Service 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:
   
   - **Name**: Any alphanumeric value that represents the token
   - **Token Code**: Unique code that's used to represent a token
   - **Description**: String to provide extra information about the token
   - **Object Name**: Business object to which the token is associated. Object Name is an optional value.
   - **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 You Configure Screen Pop Pages
- How You Configure the Media Toolbar
- Overview of Computer Telephony Integration (CTI)
- 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 You Configure Screen Pop Pages
- How You Configure the Media Toolbar
- Overview of Computer Telephony Integration (CTI)
- Update Existing Setup Data
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:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Required</td>
<td>Yes/No</td>
<td>Specifies whether the contact details of a customer must be displayed. Select No.</td>
</tr>
<tr>
<td>Contact Verification</td>
<td>Yes/No</td>
<td>Specifies whether the customer details must be verified at the beginning of the call. The default value is Yes, but select No.</td>
</tr>
<tr>
<td>Screen Pop</td>
<td>Yes/No</td>
<td>Specifies whether a screen pop page must be displayed. Select Yes.</td>
</tr>
<tr>
<td>Wrap Up</td>
<td>Yes/No/Server Driven</td>
<td>Specifies whether a customer interaction requires wrap up. Select the Server Driven option to get notified by the toolbar if an interaction must be wrapped up.</td>
</tr>
</tbody>
</table>

Note: For Digital Sales implementations, this setting must always be enabled.

Deactivate Contact Verification

Contact verification allows a user to verify a caller against records already set up in the database prior to the exchange of sensitive information. In Digital Sales however, most inbound calls are related to sales opportunities where, for instance, a new lead may be calling about an inquiry. Given that the majority of calls are of this type, call verification isn't required.

1. Sign in to B2B Service as an administrator or setup user.
2. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Communication Channels
   - Task: Configure Call Flow Parameters
3. In the **Default Settings** work area, click the following drop-down lists, and change the value of both to **No**.
   - Contact Required
   - Contact Verification

4. Click **Save and Close**.

Configure Call Flow Parameters

To configure call flow parameters:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Communication Channels
   - Task: Configure Call Flow Parameters

2. Specify default settings for all interaction channels in the **Default Settings** section.

3. 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, but, if you're using Digital Sales, the Sales phone channel Contact Verification is set to **No**, meaning the caller's contact record isn't verified.

   **Note:** If you're using Service Center and 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.

4. Click **Save** or **Save and Close**.

Related Topics

- How You Configure Screen Pop Pages
- Update Existing Setup Data

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 Unified Sandboxes
- Publish Unified Sandboxes

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:

- Name: Any alphanumeric value that represents the token
- Token Code: Unique code that's used to represent a token
- Description: String to provide extra information about the token
Object Name: Business object to which the token is associated. Select Wrap Up from the drop-down list.

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**.

### 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: Explained](#).

### Related Topics
- Overview of Sandboxes
- Create and Activate Unified Sandboxes
- Publish Unified 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 Unified Sandboxes
- Publish Unified 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: Explained.
13 CTI Media Toolbar 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 B2B Service. These APIs facilitate communication between the media toolbar and Oracle B2B Service to exchange the following in response to inbound or outbound interaction requests:

- Configuration information
- Events
- Payload data

When enabled, Oracle B2B 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:

```html
<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 
  } 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);
})(function() {
</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 B2B 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 B2B Service.

The APIs provide a non-blocking interaction between the toolbar and B2B Service. Each method has a callback function parameter that's invoked when a method on B2B Service is complete, notifying the toolbar of the outcome.

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 B2B Service. There are three main flows of the toolbar interaction:

- Initial configuration of the partner toolbar and communication with Oracle B2B 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 B2B 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.

![Call Flow Diagram]

- **Telephony Server**
  - 7. Call is Disconnected
- **Toolbar/Adapter**
  - 5. Handle "End" Command from MCA
  - 9. Update Toolbar to "Wrap Up"
- **MCA Framework**
  - 3. Call Ended from Fusion
  - 16. End Wrap Up
- **Fusion Application**
  - 1. Agent Clicks End Call
  - 13. Show Wrap Up
  - 14. Agent Ends Wrap Up

**Notes:**
- Call can be ended by agent (step 1), or by contact or adapter (step 7).
- (8. notify toolbar)
- (6. disconnect call)
- (19. notify server)
- (12. callback)
## Configuration APIs

### Overview of Configuration APIs

The configuration APIs enable the toolbar and Oracle B2B Service to exchange configuration data. They're listed in the following table.

<table>
<thead>
<tr>
<th>Method</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>getConfiguration</td>
<td>Sets up the toolbar. The method retrieves a list of features that are supported by Oracle B2B Service.</td>
</tr>
<tr>
<td>disableFeature</td>
<td>Disables a feature that the toolbar doesn't support.</td>
</tr>
<tr>
<td>readyForOperation</td>
<td>Notifies Oracle B2B Service that the toolbar is ready for use, and that the agent is logged on to the toolbar, and ready to handle communication.</td>
</tr>
</tbody>
</table>

### getConfiguration Method

Call this mandatory method to get configuration information that enables the toolbar to evaluate the features supported by B2B Service. Based on the evaluation, the toolbar informs B2B Service of any features that must be disabled. For more information, see the disableFeature API method. The returned configuration information also contains details about the initial toolbar dimensions, status, tokens, pages, and the lookup objects for the rule sets used in configuration.

Here's a list of the getConfiguration method parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar, and retrieves configuration information in the form of a JSON formatted string.</td>
</tr>
<tr>
<td>configtype</td>
<td>The type of configuration information returned by B2B Service. Possible values are TOOLBAR, TOKENS, PAGES, LOOKUP_OBJECTS, ALL, or FA_TOKEN. This is an optional parameter with a default value of TOOLBAR.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOOLBAR</td>
<td>Returns a list of features supported by B2B 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.</td>
</tr>
<tr>
<td>TOKENS</td>
<td>Returns information about both system and user-defined tokens. You can set up and modify these values using Functional Setup Manager.</td>
</tr>
<tr>
<td>PAGES</td>
<td>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.</td>
</tr>
<tr>
<td>LOOKUP_OBJECTS</td>
<td>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.</td>
</tr>
<tr>
<td>ALL</td>
<td>Returns all of information as the other configType values, except that of FA_TOKEN type.</td>
</tr>
<tr>
<td>FA_TOKEN</td>
<td>Returns a JWT token to be used by toolbar implementation to authenticate against B2B Service when calling the REST APIs. A specific call to this configType is required to obtain the JWT token.</td>
</tr>
</tbody>
</table>

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

```html
<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

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

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

```json
{
```
disableFeature Method

This method informs B2B 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>features</td>
<td>A string that contains the comma-separated feature names. For a list of features, see API Features: Explained.</td>
</tr>
<tr>
<td>callback</td>
<td>A method callback which returns results to the toolbar.</td>
</tr>
</tbody>
</table>

Here's sample code used to call the method:

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<body>
<input="button" value="Disable outgoing call" onclick="disableOutgoingCall()"/>
</body>
</html>
```

readyForOperation Method

This method notifies B2B 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. There's no return value with this method. The following table has all the other relevant details.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>readiness</td>
<td>Boolean value that specifies whether the toolbar is ready to operate.</td>
</tr>
</tbody>
</table>
Parameter | Description
--- | ---
callback | Callback which informs the toolbar that B2B Service has received the readiness status message.

Here’s sample code to call the `readyForOperation` method:

```html
<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 B2B 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.

<table>
<thead>
<tr>
<th>Method</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>newCommEvent</td>
<td>Notifies the application that the toolbar has received a new CommEvent. This means that new communication has been assigned to or was initiated by the current agent. This call is mandatory.</td>
</tr>
<tr>
<td>startCommEvent</td>
<td>Notifies the application that the toolbar has started a CommEvent, where an agent has accepted the event.</td>
</tr>
<tr>
<td>closeCommEvent</td>
<td>Notifies the application that the toolbar has closed the CommEvent. This call is mandatory.</td>
</tr>
<tr>
<td>Method</td>
<td>Usage</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>transferCommEvent</td>
<td>Called by the toolbar to inform B2B Service that a transfer of the communication has been initiated.</td>
</tr>
<tr>
<td>upgradeCommEvent</td>
<td>Notifies B2B Service that a new channel was added to an existing engagement. For instance, an agent is chatting with a customer and decides to start a video conference with the customer.</td>
</tr>
<tr>
<td>downgradeCommEvent</td>
<td>Notifies B2B Service that a channel was removed from an existing engagement. For instance, an agent chatting and video conferencing 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.</td>
</tr>
<tr>
<td>getCustomerData</td>
<td>Retrieves customer or related data.</td>
</tr>
</tbody>
</table>

newCommEvent Method

This method is called by the toolbar to inform B2B 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: "SVCMCA_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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called. For more information on what channels are available, see Channel Type Data.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
<tr>
<td>eventId</td>
<td>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.</td>
</tr>
<tr>
<td>inData</td>
<td>An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens. To specify a timeout value for an incoming call notification, add the following pair to this parameter: SVCMCA_OFFER_TIMEOUT_SEC, #OFSECOND</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Replace the #OFSECONDS value with the actual number of seconds where you want to start the timer. When the timer expires the onDataUpdated() method is invoked with the updateType parameter set to OFFER_TIMEOUT. The toolbar then invokes the closeCommEvent() method to end the interaction.</td>
</tr>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar.</td>
</tr>
<tr>
<td>lookupObject</td>
<td>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 System Business Objects.</td>
</tr>
<tr>
<td>channelType</td>
<td>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 Channel Type Data.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>outData</td>
<td>Represents an object containing possible identified data from B2B Service for the contact or for the organization. This attribute contains the names of system tokens.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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 SVCMCA_INTERACTION_ID token. Subsequent invocations of the method must send this token and its value, along with other IVR data to B2B Service.

When the newCommEvent method is invoked for a transfer, the toolbar uses the SVCMCA_PARENT_INTERACTION_ID token to send IVR data and the originating communication interaction ID to B2B Service which associates the communication events. In addition, you must also specify the SVCMCA_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
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<script type="text/javascript">
function inboundCallNotification() {
  var inData = {};
  inData.SVCMCAANI = '5551234';
  inData.SVCMCACONTACT_ID = '1234567890';
  svcMca.tlb.api.newCommEvent('PHONE', 'ORA_SERVICE', '12345-1234-67890', inData, null, function (response) {
    if (response.result == 'success') {
```

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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 token in the call data.

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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>The name of the channel for which the method is called. For more information on what channels are available, see Channel Type Data.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>eventId</td>
<td>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.</td>
</tr>
<tr>
<td>inData</td>
<td>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.</td>
</tr>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar.</td>
</tr>
<tr>
<td>channelType</td>
<td>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 Channel Type Data.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>outData</td>
<td>Represents an object containing possible identified data from B2B Service for the contact or for the organization. This attribute contains the names of system tokens.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
</head>
<script type="text/javascript">
function startCommEvent() {
  var inData = {};
  inData.SVCMCA_ANI = '5551234';
  inData.SVCMCA_CONTACT_ID = '1234567890';
  inData.SVCMCA_CONTACT_NAME = 'John Smith';
  inData.createStatement = '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 B2B 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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>The name of the channel for which the method is called. For more information on what channels are available, see Channel Type Data.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
<tr>
<td>eventId</td>
<td>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.</td>
</tr>
<tr>
<td>inData</td>
<td>An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens.</td>
</tr>
<tr>
<td>reason</td>
<td>ABANDONED, ENDCOMMUNICATION, MISSED, REJECT, TIMEOUT, OR WRAPUP.</td>
</tr>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar.</td>
</tr>
<tr>
<td>channelType</td>
<td>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 Channel Type Data.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>Member Attribute</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>outData</td>
<td>Represents an object containing possible identified data from B2B Service for the contact or for the organization. This attribute contains the names of system tokens.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

Here's sample code for this method:

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<body>
<input type="button" value="End call" onclick="closeCommEvent()"/>
</body>
</html>
```

**transferCommEvent Method**

This method is called by the toolbar to inform B2B Service that a transfer of the communication has been initiated. B2B 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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>The name of the channel for which the method is called.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
<tr>
<td>eventId</td>
<td>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.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>inData</td>
<td>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.</td>
</tr>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar.</td>
</tr>
<tr>
<td>channelType</td>
<td>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 Channel Type Data.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

Here's sample code for this method:

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>

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.');
    } else {
      alert('Operation finished with error: ' + response.error);
    }
  }, 'ORA_SVC_PHONE');
}
</head>
<body>
<input type="button" value="Notify transfer" onclick="transferCommEvent()"/>
</body>
</html>
```
upgradeCommEvent

This method is called by the toolbar to inform B2B 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called. For more information on what channels are available, see Channel Type Data.</td>
</tr>
<tr>
<td>eventId</td>
<td>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.</td>
</tr>
<tr>
<td>channelType</td>
<td>The type of channel for which the method is being called. For more information, see Channel Type Data.</td>
</tr>
<tr>
<td>upgradeChannel</td>
<td>The name of the newly added channel.</td>
</tr>
<tr>
<td>upgradeChannelType</td>
<td>The type of the newly added channel.</td>
</tr>
<tr>
<td>upgradeEventId</td>
<td>The unique media item identifier for the new communication method.</td>
</tr>
<tr>
<td>inData</td>
<td>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.</td>
</tr>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar.</td>
</tr>
</tbody>
</table>

Note:
B2B Service doesn’t expect newCommEvent, startCommEvent, or closeCommEvent for these attached engagements.

downgradeCommEvent

This method is called by the toolbar to inform B2B 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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called. For more information on what channels are available, see Channel Type Data.</td>
</tr>
<tr>
<td>eventId</td>
<td>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.</td>
</tr>
<tr>
<td>channelType</td>
<td>The type of channel for which the method is being called. For more information, see Channel Type Data.</td>
</tr>
<tr>
<td>downgradeChannel</td>
<td>The name of the newly added channel.</td>
</tr>
<tr>
<td>downChannelType</td>
<td>The type of the newly added channel.</td>
</tr>
<tr>
<td>downEventId</td>
<td>The unique media item identifier for the new communication method.</td>
</tr>
<tr>
<td>inData</td>
<td>An object containing information about incoming events for customer identifiable data, along with attributes containing the names of system or user-defined defined tokens.</td>
</tr>
</tbody>
</table>

**Note:** B2B Service doesn't expect newCommEvent, startCommEvent, or closeCommEvent for these attached engagements.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>callback</td>
<td>Returns results to the caller toolbar.</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
</tbody>
</table>
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 Channel Type Data.

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 B2B 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
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<body>
<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>
</body>
</html>
```
Window Management API

Overview of Window Management APIs

The Window Management API facilitates additional toolbar management from the main horizontal toolbar. B2B 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 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.

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>openFloatingToolbar</td>
<td>Requests B2B Service to programmatically open a floating toolbar.</td>
</tr>
<tr>
<td>isFloatingToolbarOpen</td>
<td>Requests B2B Service to determine whether the floating toolbar is open or not.</td>
</tr>
<tr>
<td>closeFloatingToolbar</td>
<td>Requests B2B Service to programmatically close the floating toolbar.</td>
</tr>
<tr>
<td>setToolbarDimensions</td>
<td>Sets toolbar dimensions for horizontal and vertical toolbars.</td>
</tr>
</tbody>
</table>

Live Window Controller API

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>openCompanionPanel</td>
<td>Requests B2B Service to programmatically open a companion panel.</td>
</tr>
<tr>
<td>isCompanionPanelOpen</td>
<td>Requests B2B Service to determine whether the companion panel is open or not.</td>
</tr>
<tr>
<td>Method</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>closeCompanionPanel</td>
<td>Requests B2B Service to programmatically close the companion panel.</td>
</tr>
</tbody>
</table>

### Inter-Toolbar Communication API

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>postToolbarMessage</td>
<td>Sends a message from one toolbar, such as the horizontal toolbar, to another, such as the floating toolbar using B2B Service as a message bus.</td>
</tr>
<tr>
<td>onToolbarMessage</td>
<td>Registers a callback for the messages exchanged between toolbars.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>barType</td>
<td>Indicates the type of toolbar. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION. For the floating toolbar, set this value to FLOAT_VERTICAL.</td>
</tr>
<tr>
<td>url</td>
<td>The URL of the page opened in the iFrame of the floating toolbar. If this value is null, B2B Service attempts to locate the URL in the configuration.</td>
</tr>
<tr>
<td>height</td>
<td>The initial height of the additional toolbar.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> 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.</td>
</tr>
<tr>
<td>width</td>
<td>The initial width of the additional toolbar.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> 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.</td>
</tr>
<tr>
<td>inData</td>
<td>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.</td>
</tr>
</tbody>
</table>
### CTI Media Toolbar APIs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>callback</td>
<td>Method callback to inform the caller toolbar of the results.</td>
</tr>
<tr>
<td>location</td>
<td>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.</td>
</tr>
<tr>
<td>closeIconVisible</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

Here’s sample code to call the openFloatingToolbar method

```javascript
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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>barType</td>
<td>Indicates the type of toolbar. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION. For the floating toolbar, set this value to FLOAT_VERTICAL.</td>
</tr>
<tr>
<td>callback</td>
<td>Method callback to inform the caller toolbar of the results.</td>
</tr>
</tbody>
</table>

Here's the member attributes of the response object.
### Member Attribute

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side status of the running method. This attribute has values of success or error.</td>
</tr>
<tr>
<td>toolbarOpen</td>
<td>True or false based on the state of the toolbar.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>barType</td>
<td>Indicates the type of toolbar. Possible values are: MAIN_HORIZONTAL, FLOAT_VERTICAL, or NOTIFICATION. For the floating toolbar, set this value to FLOAT_VERTICAL.</td>
</tr>
<tr>
<td>callback</td>
<td>Method callback to inform the caller toolbar of the results.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

### postToolbarMessage Method

The toolbar calls this method to send messages from one toolbar to another. B2B 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>messagePayload</td>
<td>Payload to be passed to the other toolbars.</td>
</tr>
</tbody>
</table>
CTI Media Toolbar APIs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>callback</td>
<td>Method callback to inform the caller toolbar of the results.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>callback</td>
<td>Method called when a message is received from other toolbars.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>messagePayload</td>
<td>Payload from toolbar.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>barType</td>
<td>Type of toolbar to which the changes apply. Possible values are: MAIN_HORIZONATL, FLOAT_VERTICAL, or NOTIFICATION.</td>
</tr>
<tr>
<td>height</td>
<td>The toolbar height.</td>
</tr>
<tr>
<td>width</td>
<td>The toolbar width. This parameter doesn’t apply to MAIN_HORIZONATL toolbars.</td>
</tr>
<tr>
<td>callback</td>
<td>Method callback to inform the caller toolbar of the results.</td>
</tr>
</tbody>
</table>

**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
<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_HORIZONATL", 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.
<table>
<thead>
<tr>
<th>Member Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>The server side running status. Result values are success or error.</td>
</tr>
<tr>
<td>error</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Event Listener API**

**Overview of Event Listener APIs**

The event listener API allows the toolbar to register listeners to track events that are triggered by B2B Service. This allows B2B Service to initiate outbound interaction events and send updates to the toolbar.

Here's a list of the Event Listener APIs and their usage.

<table>
<thead>
<tr>
<th>Method</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>agentStateEvent</td>
<td>Notifies B2B Service of changes in a user's signed in or availability status for the specified channel.</td>
</tr>
<tr>
<td>onDataUpdated</td>
<td>Registers a callback for customer data update events to be transmitted to the media toolbar with the updated information.</td>
</tr>
<tr>
<td>focusInteractionEvent</td>
<td>Notifies B2B Service that the toolbar has changed the previously active interaction slot to a different interaction slot.</td>
</tr>
<tr>
<td>onOutgoingEvent</td>
<td>Registers a toolbar-initiated callback for the start of an outgoing event triggered from B2B Service.</td>
</tr>
<tr>
<td>outboundCommError</td>
<td>Notifies B2B Service that an error occurred during initiation of the outbound event.</td>
</tr>
<tr>
<td>onToolbarAgentCommand</td>
<td>Registers a listener with B2B Service to provide agent control functionality.</td>
</tr>
<tr>
<td>onToolbarInteractionCommand</td>
<td>Registers a listener with B2B Service to provide interaction control functionality.</td>
</tr>
</tbody>
</table>

**agentStateEvent Method**

This method notifies B2B 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 B2B 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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel. (Required.)</td>
</tr>
<tr>
<td>eventId</td>
<td>Unique identifier for the event. (Required.)</td>
</tr>
<tr>
<td>isAvailable</td>
<td>Boolean to indicate if the user is available to receive routed assignments for the specified channel. (Required.)</td>
</tr>
<tr>
<td>isLoggedIn</td>
<td>Boolean to indicate if the user is signed in to the specified channel. (Required.)</td>
</tr>
<tr>
<td>stateCd</td>
<td>System code to indicate the current availability status of the user. (Optional.) For future use.</td>
</tr>
<tr>
<td>stateDisplayString</td>
<td>Translatable string to indicate the user's current channel activity state in the B2B UI, such as idle, busy, on break on so on. This must be translated to the user's language. (Required.)</td>
</tr>
<tr>
<td>reasonCd</td>
<td>System code to indicate the reason for the current availability status. (Optional.) For future use.</td>
</tr>
<tr>
<td>reasonDisplayString</td>
<td>Translatable string to display the reason for the current status on the B2B Service UI. (Optional.) For future use.</td>
</tr>
<tr>
<td>inData</td>
<td>Object containing the name value pairs if additional details are required.</td>
</tr>
<tr>
<td>callback</td>
<td>Function on the toolbar to indicate event receipt by B2B Service.</td>
</tr>
<tr>
<td>channelType</td>
<td>The type of channel. (Required.)</td>
</tr>
</tbody>
</table>

The following is sample code to call this method.

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<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>
```
onDataUpdated Method

The toolbar calls this method to register the callback listener for a data update which occurred in B2B Service which must be transmitted to the toolbar. Using this listener, B2B Service can send notifications about updates of B2B Service contact information which will then be reflected in the toolbar. Additionally, B2B Service can use this method to notify the toolbar that B2B Service actions, such as a Wrap-up, have been completed.

Here's the parameters for this method:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
<tr>
<td>callback</td>
<td>Method callback to inform the caller toolbar of the results.</td>
</tr>
<tr>
<td>channelType</td>
<td>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.</td>
</tr>
</tbody>
</table>

The response object has the following member attributes.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>updateType</td>
<td>Type of update. The values can be CUSTOMER_DATA or WRAPUP_CLOSED or OFFER_TIMEOUT.</td>
</tr>
<tr>
<td>eventId</td>
<td>Media event identifier that’s used to identify which communication event is targeted by this update.</td>
</tr>
<tr>
<td>outData</td>
<td>Object that has attributes with the names of system token, such as SVCMCA_CONTACT_ID, SVCMCA_CONTACT_NAME, SVCMCA_ORG_ID, and SVCMCA_ORG_NAME.</td>
</tr>
</tbody>
</table>

Here's sample code to call the method:

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<body>
<input type="button" value="Fire agentStateEvent" onclick="agentStateEvent()"/>
</body>
</html>
```
focusCommEvent Method

This optional method notifies B2B Service that the toolbar has changed the previously active communication slot to a different communication slot.

Here's the parameters for this method:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventId</td>
<td>A unique media item identifier. The value must match the value supplied by the toolbar in the newCommEvent.</td>
</tr>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called. For more information on what channels are available, see Channel Type Data.</td>
</tr>
<tr>
<td>channelType</td>
<td>The type of channel for which the method is being called.</td>
</tr>
<tr>
<td>inData</td>
<td>Object containing additional event details. An empty object may be passed. This parameter is reserved for future use.</td>
</tr>
<tr>
<td>callback</td>
<td>Function used by B2B Service on the toolbar which indicates receipt of an B2B Service event.</td>
</tr>
</tbody>
</table>

Sample code to call the method:

```html
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js"></script>
</head>
<body>
<input type="button" value="Register data update listener" onclick="onDataUpdated()"/>
</body>
</html>
```
onOutgoingEvent Method

The toolbar calls this method to register the callback listener for B2B Service which triggers an outgoing communication event. Using this callback B2B Service passes the information required for the toolbar to perform the outgoing event.

Here's the parameters for this method:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called.</td>
</tr>
<tr>
<td>appClassification</td>
<td>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 Application Classification Code.</td>
</tr>
<tr>
<td>callback</td>
<td>Function used by B2B Service on the toolbar which indicates receipt of an B2B Service event.</td>
</tr>
<tr>
<td>channelType</td>
<td>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.</td>
</tr>
</tbody>
</table>

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
<html>
<head>
<script type="text/javascript" src="http://domain:port/ora_support/js/mcaInteractionV1.js">
</script>
</head>
<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.');//, 'ORA_SVC_PHONE');
  });
</script>
<body>
<input type="button" value="Register outcall listener" onclick="onOutgoingEvent()"/>
</body>
</html>
```
outboundCommError Method

The toolbar calls this method to notify B2B 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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called.</td>
</tr>
<tr>
<td>commUuid</td>
<td>A unique identifier sent from B2B Service to the toolbar containing the outgoing event notification.</td>
</tr>
<tr>
<td>errorCode</td>
<td>Code to identify the exception that can be used by the agent to identify the nature of the error to contact toolbar support.</td>
</tr>
<tr>
<td>errorMsg</td>
<td>Error message displayed to the user.</td>
</tr>
<tr>
<td>callback</td>
<td>Function used by B2B Service on the toolbar which indicates receipt of an B2B Service event.</td>
</tr>
<tr>
<td>channelType</td>
<td>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.</td>
</tr>
</tbody>
</table>

The response object has the following member attributes. There are no returns.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>result</td>
<td>Represents the status of the method on the server side. Values are success and error.</td>
</tr>
<tr>
<td>error</td>
<td>Contains error messages. If there's no error, the value is undefined. For more information about error message codes, see Error Messages.</td>
</tr>
</tbody>
</table>

Here's sample code to call the method:

```html
<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>
</body>
```
onToolbarAgentCommand Method

This method registers a listener with B2B Service to give the agent control functionality. The method is only called once during initialization.

Here's the parameters for this method:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>channel</td>
<td>Name of the channel for which the method is called.</td>
</tr>
<tr>
<td>channelType</td>
<td>The type of channel for which the method is being called.</td>
</tr>
<tr>
<td>executor</td>
<td>The function implemented by the toolbar which is used by the agentCommandPrototype object.</td>
</tr>
</tbody>
</table>

The agentCommandPrototype object has these attributes:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventId</td>
<td>Represents the status of the method on the server side. Values are success and error.</td>
</tr>
<tr>
<td>command</td>
<td>Contains error messages. If there is no error, the value is undefined. For more information about error message codes, see Error Messages.</td>
</tr>
<tr>
<td></td>
<td>The following commands are available:</td>
</tr>
<tr>
<td></td>
<td>• getCurrentAgentState</td>
</tr>
<tr>
<td></td>
<td>• getActiveEngagements: The outData must contain the activeCount number and the engagements array value. For example: { activeCount:1, engagements:[ {eventId:&quot;1234&quot;} ] } If there are no active engagements, the engagements parameter must be an empty array.</td>
</tr>
<tr>
<td></td>
<td>• makeAvailable</td>
</tr>
<tr>
<td></td>
<td>• makeUnavailable</td>
</tr>
<tr>
<td>channel</td>
<td>The channel name.</td>
</tr>
<tr>
<td>channelType</td>
<td>The type of channel.</td>
</tr>
<tr>
<td>inData</td>
<td>The object containing the name value pairs for the command parameters.</td>
</tr>
<tr>
<td>result</td>
<td>Populated by the toolbar after the command process has completed successfully. If there was a failure, the reason will be displayed.</td>
</tr>
<tr>
<td>Attribute</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>resultDisplayString</td>
<td>Error displayed to the user, and populated by the toolbar.</td>
</tr>
<tr>
<td>outdata</td>
<td>Populated by the toolbar if the command required output data.</td>
</tr>
<tr>
<td>sendResponse</td>
<td>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.</td>
</tr>
</tbody>
</table>

Here's sample code to call the method:

```html
<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 B2B 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:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventId</td>
<td>Unique media item identifier supplied by the toolbar during the newCommEvent.</td>
</tr>
<tr>
<td>command</td>
<td>Name of the command to execute. The following commands are available:</td>
</tr>
<tr>
<td></td>
<td>• accept: Accepts the incoming engagement.</td>
</tr>
<tr>
<td></td>
<td>• reject: Rejects the incoming engagement.</td>
</tr>
<tr>
<td></td>
<td>• setActive: Discloses the specified engagement slot to the toolbar.</td>
</tr>
<tr>
<td>slot</td>
<td>An optional toolbar identifier supplied by the toolbar during the newCommEvent.</td>
</tr>
<tr>
<td>inData</td>
<td>The object containing the name value pairs for the command parameters.</td>
</tr>
<tr>
<td>result</td>
<td>Populated by the toolbar after the command process has completed successfully.</td>
</tr>
<tr>
<td></td>
<td>If there was a failure, the reason will be displayed.</td>
</tr>
<tr>
<td>resultDisplayString</td>
<td>Error displayed to the user, and populated by the toolbar if the command</td>
</tr>
<tr>
<td>outData</td>
<td>Populated by the toolbar if the command required output data.</td>
</tr>
<tr>
<td>sendResponse</td>
<td>Callback function used upon completion of the command processing. The sendResponse</td>
</tr>
<tr>
<td></td>
<td>method must be passed to the command object with the result populated. Also</td>
</tr>
<tr>
<td></td>
<td>the outData and resultDisplayString attributes must be populated if required.</td>
</tr>
</tbody>
</table>

The following is sample code to call the method:

```html
<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>
<input type="button" value="Register interaction command listener"
onclick="registerInteractionCommandListener()"/>
</body>
</html>

API Features

Features are functionality or sets of functionality that are supported by Oracle B2B Service, and can be implemented by a toolbar. Features are supported by the API and underlying Oracle B2B Service implementation. The following table lists the features of the API:

<table>
<thead>
<tr>
<th>Feature Code</th>
<th>What you can do with the Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>INBOUND_CALL</td>
<td>Handle messages related to inbound calls.</td>
</tr>
<tr>
<td>OUTBOUND_CALL</td>
<td>Handle messages related to outbound calls. The API notifies the toolbar to initiate the call using the supplied information.</td>
</tr>
<tr>
<td>TRANSFER_CALL</td>
<td>Handle messages related to a call transfer.</td>
</tr>
<tr>
<td>CONFERENCE_CALL</td>
<td>Handle messages related to a call conference.</td>
</tr>
<tr>
<td>OUTBOUND_CALL_EXTENSIONS</td>
<td>Handle messages related to outbound calls. The API notifies the toolbar to initiate the call with the specified phone number and extension.</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Data Token Name</th>
<th>Token Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Id</td>
<td>SVCMCA_ASSET_ID</td>
<td>Asset Identifier.</td>
</tr>
<tr>
<td>Asset Name</td>
<td>SVCMCA_ASSET_NAME</td>
<td>Asset Name.</td>
</tr>
<tr>
<td>Asset Number</td>
<td>SVCMCA_ASSET_NUM</td>
<td>Asset Number.</td>
</tr>
<tr>
<td>Channel Id</td>
<td>SVCMCA_CHANNEL_ID</td>
<td>Channel Identifier which is populated from Channel Name to be passed for page parameters.</td>
</tr>
<tr>
<td>Communication direction</td>
<td>SVCMCA_COMMUNICATION_DIRECTION</td>
<td>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.</td>
</tr>
<tr>
<td>Communication Reason</td>
<td>SVCMCA_WRAPUP_COMM_REASON</td>
<td>Communication Reason of the Interaction</td>
</tr>
<tr>
<td>Contact First Name</td>
<td>SVCMCA_CONTACT_FIRST_NAME</td>
<td>Contact’s first name.</td>
</tr>
<tr>
<td>Contact ID</td>
<td>SVCMCA_CONTACT_ID</td>
<td>Contact person identifier. This ID value may be available on the customer documentation or it can be retrieved from the application for use.</td>
</tr>
<tr>
<td>Contact Job Title</td>
<td>SVCMCA_CONTACT_JOB_TITLE</td>
<td>Contact’s job title.</td>
</tr>
<tr>
<td>Contact Last Name</td>
<td>SVCMCA_CONTACT_LAST_NAME</td>
<td>Contact’s last name.</td>
</tr>
<tr>
<td>Contact Name</td>
<td>SVCMCA_CONTACT_NAME</td>
<td>Contact name. Obtained from Oracle B2B Service for use.</td>
</tr>
<tr>
<td>Contact Organization ID</td>
<td>SVCMCA_CONTACT_ORG_ID</td>
<td>Contact’s primary organization ID.</td>
</tr>
<tr>
<td>Contact Organization Name</td>
<td>SVCMCA_CONTACT_PRIM_ORG_NAME</td>
<td>Contact’s primary organization name.</td>
</tr>
<tr>
<td>Contact Phone Number</td>
<td>SVCMCA_CONTACT_PRIMARY_PHONE</td>
<td>Contact’s primary phone number.</td>
</tr>
<tr>
<td>Display Name</td>
<td>SVCMCA_DISPLAY_NAME</td>
<td>Contact name or other identifying contact information to be displayed in supplier toolbars.</td>
</tr>
<tr>
<td>Email</td>
<td>SVCMCA_EMAIL</td>
<td>Contact email. Can be obtained from IVR or from Oracle B2B Service for use.</td>
</tr>
<tr>
<td>Interaction identifier</td>
<td>SVCMCA_INTERACTION_ID</td>
<td>Interaction identifier. Obtained from the application for use. Can be sent from the</td>
</tr>
<tr>
<td>Data Token Name</td>
<td>Token Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Interaction Notes</td>
<td>SVCMCA_WRAPUP_INTERACTION_NOTES</td>
<td>Notes of the Interaction</td>
</tr>
<tr>
<td>Lead ID</td>
<td>SVCMCA_LEAD_ID</td>
<td>Lead Id. Can be obtained from IVR system or from FA module and reused subsequently.</td>
</tr>
<tr>
<td>Lead Name</td>
<td>SVCMCA_LEAD_NAME</td>
<td>Lead name. Usually, will be obtained from FA module and reused subsequently.</td>
</tr>
<tr>
<td>Loyalty Member ID</td>
<td>SVCMCA_LOYALTY_MEMBER_ID</td>
<td>Loyalty Member Identifier</td>
</tr>
<tr>
<td>Loyalty Member Name</td>
<td>SVCMCA_LOYALTY_MEMBER_NAME</td>
<td>Loyalty Member Name</td>
</tr>
<tr>
<td>Loyalty Member Number</td>
<td>SVCMCA_LOYALTY_MEMBER_NUMBER</td>
<td>Loyalty Member Number</td>
</tr>
<tr>
<td>Mobile Phone Area Code</td>
<td>SVCMCA_MOBILE_AREA</td>
<td>Mobile Phone Area Code. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Mobile Phone Country Code</td>
<td>SVCMCA_MOBILE_CC</td>
<td>Mobile Phone Country Code. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Mobile Phone Local Number</td>
<td>SVCMCA_MOBILE_LOCAL</td>
<td>Mobile Phone Local Number. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Object ID List</td>
<td>SVCMCA_OBJ_ID_LIST</td>
<td>Object Id List for filtered display of specific objects.</td>
</tr>
<tr>
<td>Opportunity ID</td>
<td>SVCMCA_OPPORTUNITY_ID</td>
<td>Opportunity Id. Can be obtained from IVR system or from FA module and reused subsequently.</td>
</tr>
<tr>
<td>Opportunity Name</td>
<td>SVCMCA_OPPORTUNITY_NAME</td>
<td>Opportunity name. Usually, will be obtained from FA module and reused subsequently.</td>
</tr>
<tr>
<td>Organization ID</td>
<td>SVCMCA_ORG_ID</td>
<td>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 B2B Service for use.</td>
</tr>
<tr>
<td>Organization Name</td>
<td>SVCMCA_ORG_NAME</td>
<td>Account name. Obtained from Oracle B2B Service for use.</td>
</tr>
</tbody>
</table>
The following table lists the data tokens for HR HelpDesk use.

<table>
<thead>
<tr>
<th>Data Token Name</th>
<th>Token Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Email</td>
<td>SVCMCA_PER_EMAIL</td>
<td>Person Email address</td>
</tr>
</tbody>
</table>

The following table lists the data tokens for CTI Media Toolbar APIs.

<table>
<thead>
<tr>
<th>Data Token Name</th>
<th>Token Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone Area Code</td>
<td>SVCMCA_PHONE_AREA</td>
<td>Work Phone Area Code. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Phone Country Code</td>
<td>SVCMCA_PHONE_CC</td>
<td>Work Phone Country Code. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Phone Extension</td>
<td>SVCMCA_PHONE_EXT</td>
<td>Work Phone Extension. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Phone Local Number</td>
<td>SVCMCA_PHONE_LOCAL</td>
<td>Work Phone Local Number. Token value from the call data that can be passed to the contact picker when creating a contact.</td>
</tr>
<tr>
<td>Phone Number</td>
<td>SVCMCA_ANI</td>
<td>Automatic Number Identification value sent from telephony provider.</td>
</tr>
<tr>
<td>Resolution Code</td>
<td>SVCMCA_WRAPUP_RESOLUTION_CODE</td>
<td>Resolution Code of the Interaction</td>
</tr>
<tr>
<td>Service request Number</td>
<td>SVCMCA_SR_NUM</td>
<td>Service request number to be passed whenever the number is available.</td>
</tr>
<tr>
<td>Service Request Title</td>
<td>SVCMCA_SR_TITLE</td>
<td>Service request title. Obtained from the application for use.</td>
</tr>
<tr>
<td>Task ID</td>
<td>SVCMCA_TASK_ID</td>
<td>Task ID.</td>
</tr>
<tr>
<td>Transfer Reason</td>
<td>SVCMCA_WRAPUP_TRANSFER_REASON</td>
<td>Transfer Reason of the Interaction</td>
</tr>
<tr>
<td>Universal Work Object Identifier</td>
<td>SVCMCA_UWO_ID</td>
<td>Specifies the universal work object identifier.</td>
</tr>
<tr>
<td>Work Order Id</td>
<td>SVCMCA_WORK_ORDER_ID</td>
<td>Work Order Identifier.</td>
</tr>
<tr>
<td>Work Order Number</td>
<td>SVCMCA_WORK_ORDER_NUM</td>
<td>Work Order Number.</td>
</tr>
</tbody>
</table>
### Data Token Name

<table>
<thead>
<tr>
<th>Data Token Name</th>
<th>Token Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Id</td>
<td>SVCMCA_PER_PERSON_ID</td>
<td>Person Unique Identifier</td>
</tr>
<tr>
<td>Person List Name</td>
<td>SVCMCA_PER_LIST_NAME</td>
<td>Person last name, first name</td>
</tr>
<tr>
<td>Person Name</td>
<td>SVCMCA_PER_NAME</td>
<td>Person display name</td>
</tr>
<tr>
<td>Person National Id Number</td>
<td>SVCMCA_PER_NAT_ID_NUM</td>
<td>Person’s National Id Number</td>
</tr>
<tr>
<td>Person Number</td>
<td>SVCMCA_PER_NUMBER</td>
<td>Person Number</td>
</tr>
<tr>
<td>Person Phone</td>
<td>SVCMCA_PER_PHONE</td>
<td>Person Phone number</td>
</tr>
</tbody>
</table>

The following table lists the control tokens.

### Control Token Name

<table>
<thead>
<tr>
<th>Control Token Name</th>
<th>Token Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent interaction identifier</td>
<td>SVCMCA_PARENT_INTERACTION_ID</td>
<td>Parent interaction identifier in the case of a transfer. Expected to be sent along a new communication event data of the second call.</td>
</tr>
<tr>
<td>Secondary Call Type</td>
<td>SVCMCA_2NDARY_CALL_TYPE</td>
<td>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.</td>
</tr>
<tr>
<td>Skip customer identification step</td>
<td>SVCMCA_BYPASS_IDENTIFY_CONTACT</td>
<td>Skips automatic customer identification upon receiving an inbound interaction. This token can be used with the <code>startCommEvent()</code> call.</td>
</tr>
<tr>
<td>Skip customer verification step</td>
<td>SVCMCA_BYPASS_CUSTOMER_VERIFICATION</td>
<td>Skips automatic customer verification screen to be made available to the agent. This token can be used with the <code>startCommEvent()</code> call.</td>
</tr>
<tr>
<td>Skip Reverse Lookup</td>
<td>SVCMCA_BYPASS_REVERSE_LOOKUP</td>
<td>Skip automatic reverse lookup of contact.</td>
</tr>
<tr>
<td>Skip the auto screen pop engine</td>
<td>SVCMCA_BYPASS_AUTO_SCREEN_POP</td>
<td>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.</td>
</tr>
<tr>
<td>Timeout</td>
<td>SVCMCA_WRAPUP_TIMEOUT</td>
<td>Specify the time, in seconds, before the Wrap Up window is automatically closed, by adding the following pair to this parameter: SVCMCA_WRAPUP_TIMEOUT, #OFSECONDS.</td>
</tr>
</tbody>
</table>
Control Token Name | Token Code | Description
--- | --- | ---
Replace the #OFSECONDS value with the actual number of seconds before the wrap up is automatically closed.
This token can be used with the `newCommEvent()` 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."

<table>
<thead>
<tr>
<th>Page Name</th>
<th>Page Code</th>
<th>What does it do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Account</td>
<td>Create_Account</td>
<td>Accepts details of an account.</td>
</tr>
<tr>
<td>Create Contact</td>
<td>Create_Contact</td>
<td>Accepts details of a contact.</td>
</tr>
<tr>
<td>Create Lead</td>
<td>Create_Lead</td>
<td>Accepts details for a lead.</td>
</tr>
<tr>
<td>Create Opportunity</td>
<td>Create_Opportunity</td>
<td>Accepts details for an opportunity.</td>
</tr>
<tr>
<td>Create Service Request</td>
<td>Create_Service_Request</td>
<td>Accepts details of a service request.</td>
</tr>
<tr>
<td>Create Work Order</td>
<td>Create_Work_Order</td>
<td>Accepts details of a work order.</td>
</tr>
<tr>
<td>Edit Account</td>
<td>Edit_Account</td>
<td>Displays the details of an account or organization information. The displayed page information can be changed based on the rights associated with agent role.</td>
</tr>
<tr>
<td>Edit Asset</td>
<td>Edit_Asset</td>
<td>Displays details of an asset.</td>
</tr>
<tr>
<td>Edit Contact</td>
<td>Edit_Contact</td>
<td>Displays details of a contact or customer information. The displayed information can be changed based on the rights associated with agent role.</td>
</tr>
<tr>
<td>Edit Contact - Leads</td>
<td>Edit_Contact_Leads_Tab</td>
<td>Displays details of a lead for a given contact or customer.</td>
</tr>
<tr>
<td>Edit Contact - Opportunities</td>
<td>Edit_Contact_Opportunities</td>
<td>Displays details of an opportunity for a given contact or customer.</td>
</tr>
</tbody>
</table>
## CTI Media Toolbar APIs

<table>
<thead>
<tr>
<th>Page Name</th>
<th>Page Code</th>
<th>What does it do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit Contact - Service Requests</td>
<td>Edit_Contact_Service_Requests</td>
<td>Displays details of a service request for a given contact or customer.</td>
</tr>
<tr>
<td>Edit Lead</td>
<td>Edit_Lead</td>
<td>Displays details of a lead.</td>
</tr>
<tr>
<td>Edit Loyalty Member</td>
<td>Edit_Loyalty_Member</td>
<td>Displays details of a Loyalty member.</td>
</tr>
<tr>
<td>Edit Service Request</td>
<td>Edit_Service_Request</td>
<td>Shows details of a service request. Page information can be edited according with the rights associated with agent role.</td>
</tr>
<tr>
<td>Edit Service Request - Work Order</td>
<td>Edit_Work_Order_From_SR</td>
<td>Shows details of a work order for a given service request.</td>
</tr>
<tr>
<td>Edit Work Order</td>
<td>Edit_Work_Order</td>
<td>Shows details of a work order.</td>
</tr>
<tr>
<td>Opportunity List</td>
<td>Opportunity_List</td>
<td>Shows details of an opportunity.</td>
</tr>
<tr>
<td>Service Request List</td>
<td>Service_Request_List</td>
<td>Shows details of a service request.</td>
</tr>
<tr>
<td>Work Order List</td>
<td>Work_Order_List</td>
<td>Shows details of a work order.</td>
</tr>
</tbody>
</table>

### Related Topics
- Overview of Interaction APIs

### System Business Objects

The following table lists the business objects.

<table>
<thead>
<tr>
<th>What would you like to do?</th>
<th>How to do it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe account or organization information.</td>
<td>Select Account</td>
</tr>
<tr>
<td>Describe activity information.</td>
<td>Select Activity</td>
</tr>
<tr>
<td>Describe asset information.</td>
<td>Select Asset</td>
</tr>
<tr>
<td>What would you like to do?</td>
<td>How to do it</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Describe the contact or customer information.</td>
<td>Select Contact</td>
</tr>
<tr>
<td>Describe lead information.</td>
<td>Select Lead</td>
</tr>
<tr>
<td>Describe loyalty member information.</td>
<td>Select Member</td>
</tr>
<tr>
<td>Describe opportunity information.</td>
<td>Select Opportunity</td>
</tr>
<tr>
<td>Describe person information.</td>
<td>Select Person Picker</td>
</tr>
<tr>
<td>Describe resource information.</td>
<td>Select Resource</td>
</tr>
<tr>
<td>Describe service request information.</td>
<td>Select ServiceRequest</td>
</tr>
<tr>
<td>Describe work order information.</td>
<td>Select WorkOrder</td>
</tr>
<tr>
<td>Describe wrap up information.</td>
<td>Select Wrap Up</td>
</tr>
</tbody>
</table>

## Channels Code

Channels are configured using the Functional Setup Manager within Oracle B2B Service. The following table lists the channel codes:

<table>
<thead>
<tr>
<th>Channel Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHONE</td>
<td>Phone channel.</td>
</tr>
<tr>
<td>CHAT</td>
<td>Chat channel.</td>
</tr>
<tr>
<td>EMAIL</td>
<td>Email channel.</td>
</tr>
</tbody>
</table>

## 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

<table>
<thead>
<tr>
<th>Classification Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_HRHD</td>
<td>Default classification for Human Resources Help Desk related setup for Lookup rules and Screen Pop rules.</td>
</tr>
<tr>
<td>ORA_SALES</td>
<td>Default classification for sales-related setup for Lookup rules and Screen Pop rules.</td>
</tr>
<tr>
<td>ORA_SERVICE</td>
<td>Default classification for service-related setup for Lookup rules and Screen Pop rules.</td>
</tr>
</tbody>
</table>

## Error Messages

The following table lists the codes for error messages that are returned in case of an exception while running Oracle B2B Service functionality in response to toolbar requests.

<table>
<thead>
<tr>
<th>Error Message Code</th>
<th>When is the error message returned?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVCMCA_ERR_NOTIMPLEMENTED</td>
<td>Specified functionality isn't implemented.</td>
</tr>
<tr>
<td>SVCMCA_ERR_MISSING_CONFIGURATION</td>
<td>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 Setup and Maintenance.</td>
</tr>
<tr>
<td>SVCMCA_ERR_INVALID_DIMENSIONS</td>
<td>Specified dimension of the toolbars is invalid.</td>
</tr>
<tr>
<td>SVCMCA_ERR_INVALID_CONFIGTYPE</td>
<td>Specified configuration is of an invalid type.</td>
</tr>
<tr>
<td>SVCMCA_ERR_UNKNOWN_METHOD</td>
<td>Unknown method invoked on the API.</td>
</tr>
</tbody>
</table>

## Channel Type Data

The following table lists the channel types, which are predefined lookups identified by the `ORA_SVC_CHANNEL_TYPE_CD` lookup type.

<table>
<thead>
<tr>
<th>Channel Code</th>
<th>What is it used for</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_SVC_CHAT</td>
<td>Chat channel</td>
</tr>
<tr>
<td>ORA_SVC_EMAIL</td>
<td>E-mail channel</td>
</tr>
<tr>
<td>ORA_SVC_PHONE</td>
<td>Phone channel</td>
</tr>
<tr>
<td>Channel Code</td>
<td>What is it used for</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>ORA_SVC_SOCIAL</td>
<td>Social channel</td>
</tr>
<tr>
<td>ORA_SVC_WEB</td>
<td>Web channel</td>
</tr>
<tr>
<td>ORA_SVC_NONE</td>
<td>None</td>
</tr>
</tbody>
</table>
14 Service Entitlements

Overview of Service Entitlements

Entitlements Background and Terminology

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.

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.
For more information about implementing subscriptions (or service contracts) and installed base assets, see Related Topics.

Related Topics
- Enable Installed Base Assets for Service Requests and Work Orders

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 You 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.

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.

Overview of Coverage Schedule

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 milestone is first instantiated, the application looks at the coverage rules and the associated schedule, and then calculates the date and time that milestone expires. Based on this, the application displays the 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 one of two different values, depending on whether the milestone is actively counting, or paused. 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.

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.

### Enable Subscription Coverages for Service Entitlements

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.

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:
   - Offering: Service
   - Functional Area: Service Entitlements
2. Click Change Feature Selection.
   The Edit Features: Service Entitlements page is displayed.
3. Select the Enable check box and click Done.

Related Topics
- Create a Coverage Schedule
- Create Standard Coverages

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:
   - Schedule Name: Name of the coverage schedule.
   - 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.
   
   - **Start Date** and **End Date**: Start and end dates for the coverage schedule interval.
   - **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.

---

### 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.

Here’s a table that 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.

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Severity</th>
<th>Channel Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>Blank</td>
</tr>
<tr>
<td>2</td>
<td>Medium</td>
<td>Phone</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>Email</td>
</tr>
<tr>
<td>4</td>
<td>Medium</td>
<td>Chat</td>
</tr>
<tr>
<td>5</td>
<td>Low</td>
<td>Blank</td>
</tr>
</tbody>
</table>

Here’s a 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.

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Severity</th>
<th>Channel Type</th>
<th>Comments</th>
</tr>
</thead>
</table>
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”.

c. Specify the **Result Columns** (Calendar, along with the metric and threshold values for each milestone).
   
   i. From the **Calendar** drop-down list, select the coverage schedule to use for calculating the milestones’ due date.
   
   ii. For each milestone, enter the metric in minutes, which is used with the schedule to identify when the milestone is due.
   
   iii. 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`.

d. 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.

---

### 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

---

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Severity</th>
<th>Channel Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Medium</td>
<td>Phone</td>
<td>Medium, Phone would match this line</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>Email</td>
<td>Medium, Email would match this line</td>
</tr>
<tr>
<td>4</td>
<td>Medium</td>
<td>Blank</td>
<td>Medium, Phone would also match this line</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medium, Email would also match this line</td>
</tr>
<tr>
<td>5</td>
<td>Low</td>
<td>Blank</td>
<td></td>
</tr>
</tbody>
</table>
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:
   - 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.
   - 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 You Monitor SR 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.

For more information about scheduled processes, see Related Topics.

**Related Topics**

### How You 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. To expose current milestone fields on the service request layout, create a user-defined layout in Setup and Maintenance, and add the MilestoneID field to the Service Request Summary page.

### Configure Email Notifications to Monitor SR Milestones

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). For example, you can configure emails
to be sent out to warn required teams and managers that a milestone is about to expire, or escalate a service request when a 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:
      ```java
      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.

```java
def resourceVO = newView('Resource')
resourceVO.appendViewCriteria("PartyId = ${AssigneePartyId}")
resourceVO.executeQuery()
def mgrPartyId
while (resourceVO.hasNext()) {
    def curResourceRow = resourceVO.next()
    mgrPartyId = curResourceRow.ManagerPartyId
}
return mgrPartyId
def resourceMgrVO = newView('Resource')
resourceMgrVO.appendViewCriteria("PartyId = ${mgrPartyId}")
resourceMgrVO.executeQuery()
def mgrEmailId
while (resourceMgrVO.hasNext()) {
    def curResourceMgrRow = resourceMgrVO.next()
    mgrEmailId = curResourceMgrRow.EmailAddress
}
```
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.

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. Click the **Entities** tab, and select **Service**.
4. In the **Service: 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. On the Edit Service Mapping: Subscription Entitlements page, click the **Sources** tab.
7. Select **Service** in the **Entity Mappings** tab.
8. On the **Attribute Mappings** tab of the **Service: Details** section, click **Add Row** to create the mapping for the new attribute.
9. 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.

10. Click **Save**.
11. On the Edit Service Mapping: Subscription Entitlements page, click the **Services** tab.
12. Select **Service** in the **Entities** tab.
13. In the **Service: Entities** tab, click **Add Row** to create the mapping for the new attribute.
14. 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.
15. Click **Save and Close**.

### Add Condition Columns to a Matrix Class

Here's how you create a matrix class and add additional conditional columns.

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. Create, duplicate, or edit an existing 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.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>Not possible</td>
<td>No rows applied</td>
<td>When explicit match between SR and coverage row.</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Blank row applied</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o If the SR severity isn't defined in a row, the blank coverage row is applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o If the SR severity is defined in a coverage row, an error occurs and no values are applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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 &quot;Create Standard Coverages&quot;.</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>No rows applied</td>
<td>When explicit match between SR and coverage row.</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Blank row applied</td>
<td>When explicit match between SR and coverage row.</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>No rows applied</td>
<td>When explicit match between SR and coverage row.</td>
</tr>
</tbody>
</table>

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:

   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, or edit a matrix class you previously created.
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:

   ```javascript
   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**.

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:
The Manage Milestone Configuration page is displayed.

2. Click **Create Milestone** and specify the following milestone details:

- **Milestone Label**: Enter the name of the milestone that should be displayed on the service request.
- **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.
- **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.
- **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.
- **Business Unit Name**: Leave as the default business unit (BU) unless you're configuring milestones for multiple business units. For more information, see the next section, "Configure Milestones for Multiple Business Units".
- **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.

- **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.

- **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.

   - 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.

   - 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.

      - 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.

**Related Topics**

- **Update Existing Setup Data**
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 SR 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?

Review SR Milestone Diagnostics

Here’s how you can view the milestone diagnostics report:

1. In the Setup and Maintenance work area, go to the following:
   a. Offering: Service
   b. Functional Area: Service Entitlements
   c. 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.
15 **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 add Action Plans to the following objects:

- Service Requests
- Cases
- Internal Help Desk Requests
- HR Help Desk Requests

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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Action Plan Profile Options</td>
<td>Manage profile options for the Action Plans feature.</td>
<td>Yes</td>
</tr>
<tr>
<td>Manage Action Plan Actions</td>
<td>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.</td>
<td>Yes</td>
</tr>
<tr>
<td>Manage Action Plan Templates</td>
<td>Create templates to group similar actions to be added to an action plan.</td>
<td>Yes</td>
</tr>
<tr>
<td>Manage Action Categories for Action Plans</td>
<td>Action categories are used to facilitate finding actions to add to templates or directly to an action plan.</td>
<td>No</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
<td>Required</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Manage Template Categories for Action Plans</td>
<td>Template categories are used by agents to filter and find templates to apply to an action plan.</td>
<td>No</td>
</tr>
<tr>
<td>Manage Mapping of Action Plan Status Values</td>
<td>Manage the global setup for status configuration. You can map task, appointment, or service request attributes to an action status at a global level. Action status mapping can also be done at the individual action level.</td>
<td>No</td>
</tr>
<tr>
<td>Manage Process Integration for Action Plans</td>
<td>Configure the authentication from B2B Service to your Process Automation instance.</td>
<td>No</td>
</tr>
<tr>
<td>Manage Action Plan Process Metadata</td>
<td>Manage the action plan process metadata.</td>
<td>No</td>
</tr>
</tbody>
</table>

**Related Topics**
- Manage Action Plan Actions
- Manage Action Plan Templates
- Map Action Plan Status Values

### Manage Action Plan Profile Options

The following table shows the available action plan profile options and their descriptions.

<p>| Profile Option                     | Description                                                                                                                                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| SVC_ENABLE_ACTION_PLAN            | Specify if Action Plan is enabled for service requests.                                                                                                                                                     |          |</p>
<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_ALWAYS_SHOW_ACTIONPLAN_TAB</td>
<td>Enables the default visibility of Action Plan tab in the SR UI. If you enable it, the Action Plan tab will always be visible. Otherwise, it will only be visible if the SR has Action Plans.</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>This profile option isn’t used for Next Gen.</td>
</tr>
<tr>
<td>SVC_ENABLE_SUBSCRIPTION_SCHEDULES_IN_ACTION_PLANS</td>
<td>Enable calculation for action plan estimated completion times based on schedules defined in Subscription Cloud.</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>If you don’t set this profile option, contract schedules are used.</td>
</tr>
<tr>
<td></td>
<td>Oracle recommends using subscription schedules.</td>
</tr>
<tr>
<td></td>
<td>If an action plan template doesn’t have an explicitly assigned valid subscription schedule, then SVC_DEFAULT_CRMCALENDAR/SVC_DEFAULT_HCMCALENDARG profile options are used to specify a default contract schedule to use as a calendar.</td>
</tr>
<tr>
<td></td>
<td>If SVC_DEFAULT_CRMCALENDAR/SVC_DEFAULT_HCMCALENDARG aren’t set, a 24/7 schedule is used by default to perform any date computations.</td>
</tr>
<tr>
<td>ORA_SVC_DEFAULT_SUBSCRIPTION_SCHEDULE</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>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.</td>
</tr>
<tr>
<td>ORA_SVC_AP_PROCESS_METADATA_VALIDATION_ENABLED</td>
<td>Enable the validation of process metadata in action plan.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

**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**.

## Manage Action Plan Actions

Use the Manage Action Plan Actions task to create and edit actions for action templates or individual actions used in SRs. 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 or stripe codes, use the drop down lists to select the stripe code and BU.
4. Select **Category**.
5. Select the **Action Type**.

Depending on the B2B Service features you're using, Action types can include:

- Appointment
- Article
  
  **Note:** You can create an Action of type Article. When you must select Stripe Code of the action and then select Sub Type of the action. Attribute mapping section needs to be populated as it's required for any other type of actions.

- Case
- Dynamic Process
- 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
- 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:** Once 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 version which is default 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:
- 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.
- Customer Visible - Optional. Used only for user interface configurations to display or hide Actions.
- Internal Only - Visible internally only.

11. Enter a context for the action.
Context options include:
- Opportunity
- Service Request
- Internal Help Desk Request
- HR Help Desk Request

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.
14. Enter a description of the action and any pertinent details.
15. If necessary, make edits on the **Attribute Mapping** or **Status Mapping** tabs. These are explained next.
16. 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 setup 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** columns show 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.

Mandatory fields are shown in the **Required** column. Additional fields may 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 mapping that can’t be changed.

The following table shows the predefined Process Automation status values that are mapped with Action Plan status values.

<table>
<thead>
<tr>
<th>Process State</th>
<th>Action Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>ORA_SVC_IN_PROCESS</td>
</tr>
<tr>
<td>Completed</td>
<td>ORA_SVC_COMPLETED</td>
</tr>
<tr>
<td>Terminated</td>
<td>ORA_SVC_COMPLETED</td>
</tr>
<tr>
<td>Closed</td>
<td>ORA_SVC_COMPLETED</td>
</tr>
</tbody>
</table>
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:**
   - Blocked
   - Completed
   - 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:**
   - Contains
   - Equals
   - Is null
   - 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.

<table>
<thead>
<tr>
<th>Column</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Completed</td>
</tr>
<tr>
<td>This is the status you want the action to be.</td>
<td></td>
</tr>
<tr>
<td>Attribute</td>
<td>Status</td>
</tr>
<tr>
<td>This attribute comes from the SR.</td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>is one of</td>
</tr>
<tr>
<td>Value</td>
<td>Completed, Canceled</td>
</tr>
<tr>
<td>Column</td>
<td>Value</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>This is the SR's status. You can select multiple values from the list.</td>
<td></td>
</tr>
</tbody>
</table>

### 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 once 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. Once 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.

### Related Topics

- Manage Action Plan Templates
- Map Action Plan Status Values
- Update Existing Setup Data

### 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. Enter a detailed description for the template.
12. If stripe codes are enabled, select the stripe code for the template.
13. 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.

14. Add actions to the template by clicking the **Add** icon in the **Action Flow** region of the page.
15. On the **Add Actions to Template** page, search for the action to add by entering a name, category, or action type.
16. Click **Search**.
17. From the search results, add an action by clicking the Add icon for the action you want to add.
18. 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**.

19. 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.

20. 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.

21. 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.

22. 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 cannot be skipped.

23. 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**
- Manage Action Plan Actions
- Create a Coverage Schedule
- 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
- Manage Action Plan Actions
- Update Existing Setup Data
- 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. 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:
  o Sales Administrator
  o Case Worker
  o Human Resource Help Desk Agent (if using the Help Desk product)
  o Internal Help Desk Manager (if using the Help Desk product)

• Assign the Service Developer role to the following groups:
  o Customer Service Representative
  o Case Worker
  o Human Resource Help Desk Agent (if using the Help Desk product)
  o 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 B2B Service

Enable the Run Processes through Action Plans Feature

You can use Oracle Process Automation in Actions and Plans in Oracle B2B 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 B2B Sales Service users of your process-based Actions and Plans have:

- The SVC_ACTION_PLAN_PROCESS_PRIV privilege provisioned in B2B 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 B2B 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 your test environment to your production environment.


For export and import of Process Automation processes, refer to the Process Automation documentation.

Related Topics
- Import Your Action Plan Action Data
16 Configure Service Request Outcomes and Resolutions

Outcomes and Resolutions

Oracle B2B Service provides ready-to-use outcomes and resolutions. Administrators can configure additional outcomes and resolutions.

We recommend that you use the Manage Service Request Outcomes and Resolutions 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 Manage Service Request Resolutions 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 for the Resolve SR Flow

The Manage Service Request Outcomes and Resolutions task is 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. Navigate to Setup and Maintenance.
3. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Service Request
   - Task: Manage Service Request Outcomes and Resolutions.
4. In the Manage Service Request Outcomes and Resolutions page, select the Outcome tab.
5. Click the Add icon to add a new outcome.
6. 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: We recommend that you name the outcome lookup code starting with SVC_ to differentiate between customer-created outcomes and ready-to-use outcomes.

7. 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 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.
   - Select an outcome in the Outcomes list.
   - Select the resolutions from Available Resolutions list and move them to the Selected Resolutions list.
   - 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.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution Provided</td>
<td>Knowledge Article</td>
</tr>
<tr>
<td></td>
<td>FAQ</td>
</tr>
<tr>
<td></td>
<td>Workaround identified</td>
</tr>
<tr>
<td>Unable to Solve Defect Logged</td>
<td>Enhancement Logged</td>
</tr>
</tbody>
</table>
### 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. Navigate to Application Composer.
3. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Service Request
   - Task: Manage Service Request Resolutions.
4. In the Manage Service Request Resolutions page, all resolutions for the lookup type `ORA_SVC_SR_RESOLUTION_CD` are displayed.
5. Click **Add** to add an outcome under the relevant lookup type. You also modify or delete the outcomes here.
6. Click **Save and Close**.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Required</td>
<td></td>
</tr>
<tr>
<td>No Fault Found</td>
<td></td>
</tr>
<tr>
<td>Customer Abandoned</td>
<td>Failed attempts to contact</td>
</tr>
<tr>
<td></td>
<td>Resolved by Customer</td>
</tr>
</tbody>
</table>
17 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 with the SR user interface (UI).

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 2 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**.

   **Note:**
   
   - For more information on accessing the Identity Cloud Service Administrator Console, see *How to Access Oracle Identity Cloud Service*.
   - If this 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 a user.

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.
Schedule the Processing Job

Here's how you schedule the job that reads the ingested data and sends it to the indexing engine.

1. Sign in to https://<your_host>/crm-svc/ai-similarity/ (where <your_host> is the link to the administrator application), with your administrator credentials.

   The link to the administrator application is available at Identity Cloud Service Administrator Console > Oracle Cloud Services (or Application) > AI Apps > Configuration > Primary Audience.

2. 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.
3. 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, 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`.

4. After the activation is completed, click **Home > Similarity Configuration**.

Step 2 of the 3-step train is displayed, where you can review the ready-to-use fields considered in the similarity calculation.

5. If you haven’t provided the connection details during the activation step, then go to step 1 (Setup) and add the username, password, and URL. Otherwise, skip step 1.

6. Click **Validate and Save**.

   **Note:** You may want to check if the username and password are correct before entering them. Try to access BI Publisher with these credentials by navigating to `https://<your_host>/xmlpserver`. For the previous example, it would be `https://host-fusionappsqa.fa.ocs.oc-test.com/xmlpserver`. 


7. In step 2 (Configuration), by default, the ready-to-use fields considered in the similarity calculation are displayed, along with their importance. Importance implies how much weight a field would have in the calculation, and consequently, how much influence it would have in the order of similar SRs on the list.

a. If you want custom fields to be ingested and taken into account by the algorithm, 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 on a row if you want to change the importance of an already added field in the table.

8. Save the changes when ready. A full re-ingestion is needed for the changes to take effect.

9. In Step 3 (Processing Job), if the activation was done with the Ingestion Configuration switch on, you will see the job is already enabled and runs on a daily basis. Otherwise, click **Enable Processing Job**. By default, the job will run every 30 minutes.

Also, there's an option for full re-ingestion in case this operation is needed. For example, in a test pod after a refresh from production when data has been deleted and created again.

Here's how the page should look like after enabling both the jobs:
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>/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, a change entails full re-ingestion of data.

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.
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.
8. (Optional) 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, this feature has been enabled.
d. Click the **Similar SRs** tab.

You can test and start using this feature.

**Note:** You can also enable this feature by setting the SVC_ENABLE_SIMILAR_SR profile option to **Yes**.
Enable Productivity Tools for Service Requests

Productivity tools show as features on SR create or edit pages. The following table lists productivity tools that are available for service requests.

<table>
<thead>
<tr>
<th>Productivity tool</th>
<th>Description</th>
<th>Profile Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SmartText</td>
<td>A reusable fragment of text that you can insert in messages and fields</td>
<td>SVC_ENABLE_STD_TEXT_IN_SR</td>
</tr>
<tr>
<td>Keyboard Shortcuts</td>
<td>A combination of keyboard keys that can be used to quickly access actions and buttons on the service request pages.</td>
<td>SVC_ENABLE_KEYBOARD_SHORTCUTS_IN_SR</td>
</tr>
<tr>
<td>SR Audit</td>
<td>A subtab that displays the history of service requests from the time they're created.</td>
<td>SVC_ENABLE_AUDIT_IN_SR</td>
</tr>
<tr>
<td>Severity color coding</td>
<td>A way to color code severity levels so the user can quickly see the SR's severity.</td>
<td>SVC_ENABLE_SEVERITY_COLOR_IN_SR</td>
</tr>
<tr>
<td>Knowledge</td>
<td>A list of knowledge articles to help agents find and use the appropriate details.</td>
<td>SVC_ENABLE_KNOWLEDGE_IN_SR</td>
</tr>
<tr>
<td>Click to Edit</td>
<td>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.</td>
<td>SVC_ENABLE_CLICK_TO_EDIT</td>
</tr>
</tbody>
</table>

Productivity tools are disabled by default. Here's how you enable them:

1. In the Setup and Maintenance Work area, go to the following:
   - Offering: Service
   - Functional Area: Productivity Tools
   - 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 assigned to an SR. 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:
   - Offering: Service
   - Functional Area: Service Request
   - 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 Service Request Severity Values
- Keyboard Shortcuts
- How You Manage SmartText Entries
- View Service Request Audit History
- Update Existing Setup Data

How You Manage SmartText Entries

A SmartText entry is a reusable fragment of text that you or your users can create. You can create SmartTexts in multiple languages. You can use rich-text to create SmartText entries in Service Request Message fields. Other SR fields, such as Problem Description and Solution Description only support plain text. As an administrator, you can create public SmartText entries that all users can use. Users can't edit these entries.

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.

Note: SmartText for Chat will be available in the new Redwood UI, but not in the classic application. Administrators will be able to use the Chat authoring UI within the classic application to create plain SmartTexts for use in Chat within the Redwood application.

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

Here’s an overview of the different privileges you grant to allow your users SmartText access.

<table>
<thead>
<tr>
<th>Privilege</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use SmartText</td>
<td>SVC_USE_STD_TXT_PRIV</td>
<td>Allows a user to view, search and insert SmartText.</td>
</tr>
<tr>
<td>Manage SmartText</td>
<td>SVC_MANAGE_STD_TXT_PRIV</td>
<td>Allows a user to create, update, and delete SmartText for their own use.</td>
</tr>
<tr>
<td>Publish SmartText</td>
<td>SVC_PUBLISH_STD_TXT_PRIV</td>
<td>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.</td>
</tr>
<tr>
<td>Administer SmartText</td>
<td>SVC_ADMIN_STD_TXT_PRIV</td>
<td>Allows the user to administer SmartText.</td>
</tr>
</tbody>
</table>

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. From release 21D onward, the + icon no longer exists. To quickly create a new, private SmartText, simply 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.

**Note:** If you’re a Help Desk administrator with SmartText privileges, select Help Desk from the drop down list to indicate your application. For information on HR Help Desk, refer to the guide on Oracle Help Center.

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.
6. Make a selection from the **Business Unit** drop down list (if available).
   
   If the HZ_ENABLE_MULTIPLICATION_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. For more information on both profile options, see the "Manage Common CRM BU Profile Options for Service BUs" topic.

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:
   
   - Enter a name for the SmartText entry. There are some restrictions on special characters, so see "SmartText Naming Conventions" in Related Topics.
   - Select **Use HTML** to use rich text formatting in your SmartText entry. You can insert tables and images here.
   - Enter the text you want to insert.
   - 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.
   - Click **Save as Personal**.

10. To edit the Private SmartText entry, do the following:
    
    - Select the SmartText entry you want to edit.
    - Select the **Language** of the SmartText entry from the drop-down list.
    - You can also create in a new language by clicking the **Add** icon.
    - 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.

**Related Topics**

### 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.

**Note:** If you're a Help Desk administrator with SmartText privileges, select Help Desk from the Domain drop down list to indicate your application. For information on HR Help Desk, refer to the guide on Oracle Help Center.

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.
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 For more information on both profile options, see the "Manage Common CRM BU Profile Options for Service BUs" topic.

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:

- Enter the name for the SmartText entry. There are some restrictions on special characters, so see "SmartText Naming Conventions" in Related Topics.
- Select **Use HTML** to use rich text formatting in your SmartText entry. You can insert tables and images here.
- Enter the text you want to insert.
- 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.
Related Topics

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
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.

<table>
<thead>
<tr>
<th>Browser</th>
<th>Operating System</th>
<th>Key Combination</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Chrome</td>
<td>Linux</td>
<td>Alt+Shift+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Google Chrome</td>
<td>Mac OS X</td>
<td>Control+Option+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Google Chrome</td>
<td>Windows</td>
<td>Alt+Shift+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Mozilla Firefox</td>
<td>Linux</td>
<td>Alt+Shift+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Mozilla Firefox</td>
<td>Mac OS X</td>
<td>Control+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Mozilla Firefox</td>
<td>Windows</td>
<td>Alt+Shift+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Microsoft Internet Explorer 7</td>
<td>Windows</td>
<td>Alt+Key</td>
<td>Set focus</td>
</tr>
<tr>
<td>Microsoft Internet Explorer 8</td>
<td>Windows</td>
<td>Alt+Key</td>
<td>Clear or set focus</td>
</tr>
<tr>
<td>Microsoft Internet Explorer 11</td>
<td>Windows</td>
<td>Alt+Key</td>
<td>Clear or set focus</td>
</tr>
<tr>
<td>Apple Safari</td>
<td>Windows</td>
<td>Alt+Key</td>
<td>Click</td>
</tr>
<tr>
<td>Apple Safari</td>
<td>Mac OS X</td>
<td>Control+Option+Key</td>
<td>Click</td>
</tr>
</tbody>
</table>
The following table lists the keyboard shortcuts that are provided with the applications. Some of the shortcuts can't be modified.

<table>
<thead>
<tr>
<th>Action</th>
<th>Keyboard shortcut</th>
<th>Editable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Service Request</td>
<td>E</td>
<td>Yes</td>
</tr>
<tr>
<td>Save and Continue</td>
<td>V</td>
<td>Yes</td>
</tr>
<tr>
<td>Send</td>
<td>D</td>
<td>Yes</td>
</tr>
<tr>
<td>Post</td>
<td>T</td>
<td>Yes</td>
</tr>
<tr>
<td>Select from Service Request</td>
<td>Q</td>
<td>Yes</td>
</tr>
<tr>
<td>Insert Knowledge</td>
<td>W</td>
<td>Yes</td>
</tr>
<tr>
<td>Add Team Members</td>
<td>A</td>
<td>Yes</td>
</tr>
<tr>
<td>Back</td>
<td>B</td>
<td>No</td>
</tr>
<tr>
<td>Cancel</td>
<td>C</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
<td>No</td>
</tr>
<tr>
<td>Save and Close</td>
<td>S</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>Y</td>
<td>No</td>
</tr>
<tr>
<td>Apply</td>
<td>L</td>
<td>No</td>
</tr>
<tr>
<td>Done</td>
<td>P</td>
<td>No</td>
</tr>
<tr>
<td>Finish</td>
<td>I</td>
<td>No</td>
</tr>
</tbody>
</table>
- **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.

<table>
<thead>
<tr>
<th>Action</th>
<th>Keyboard shortcut</th>
<th>Editable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next</td>
<td>X</td>
<td>No</td>
</tr>
<tr>
<td>OK</td>
<td>K</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action</th>
<th>Keyboard shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Action Plan</td>
<td>A</td>
</tr>
<tr>
<td>Show Keyboard Shortcuts</td>
<td>H</td>
</tr>
<tr>
<td>Open Restore Pane</td>
<td>P</td>
</tr>
<tr>
<td>Update</td>
<td>B</td>
</tr>
<tr>
<td>Assign to Me</td>
<td>M</td>
</tr>
<tr>
<td>Launch Cobrowse</td>
<td>L</td>
</tr>
<tr>
<td>Copy</td>
<td>C</td>
</tr>
<tr>
<td>Delete</td>
<td>D</td>
</tr>
<tr>
<td>Forward</td>
<td>F</td>
</tr>
<tr>
<td>Get Link</td>
<td>G</td>
</tr>
<tr>
<td>Run Queue Assignment</td>
<td>Q</td>
</tr>
<tr>
<td>Update Service Request Milestones</td>
<td>S</td>
</tr>
<tr>
<td>Customer Entry</td>
<td>E</td>
</tr>
</tbody>
</table>
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
- No two actions or buttons can have the same keyboard shortcut.

5. Click Save.

<table>
<thead>
<tr>
<th>Action</th>
<th>Keyboard shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Note</td>
<td>N</td>
</tr>
<tr>
<td>Response</td>
<td>R</td>
</tr>
</tbody>
</table>
19 Set Up Service Business Units

How Business Units for Service Are Set Up

With business units (BUs) for Service, you can deploy more than one service center within a single instance of your service 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.

For more detailed information about BUs, see the “Setting Up Multiple Business Units” chapter of the Oracle CX Sales Implementing Sales guide at: http://docs.oracle.com/cloud

For more detailed information about users and security, see the Oracle CX Sales Getting Started with Your Sales Implementation guide at: http://docs.oracle.com/cloud

To set up business units in Service, you must perform the following tasks in the given order.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting Up Business Units for Service</td>
<td>Add the Manage Business Unit functional area to the Service offering by using the Change Feature Opt In link in Setup and Maintenance.</td>
</tr>
<tr>
<td>Manage Common Profile Options</td>
<td>Set the profile options to enable the multiple-BU functionality in the Manage Common CRM Business Unit Profile Options task.</td>
</tr>
<tr>
<td>Manage Internal Resource Organizations</td>
<td>Define internal resource organizations to be associated with the BU.</td>
</tr>
<tr>
<td>Manage Resource Organization Hierarchies</td>
<td>Add the internal resource organizations to the internal resource organization hierarchy.</td>
</tr>
<tr>
<td>Create Business Unit</td>
<td>Create a BU to be associated with the resource organization in the Manage Business Unit Task.</td>
</tr>
<tr>
<td>Associate Resource Organization to Business Unit</td>
<td>Associate the internal resource organization to the BU you created. Use the Resource Directory.</td>
</tr>
<tr>
<td>Create Employees</td>
<td>Add users to the organization in the Users, Roles and Delegations task, and make one of the resources a manager for the organization.</td>
</tr>
</tbody>
</table>
Set Up Service Business Units

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset Passwords for Users</td>
<td>Reset the password for the users.</td>
</tr>
<tr>
<td>Set the Scope in Service Setup Tasks and complete Service Setup tasks.</td>
<td>Set the scope for Service tasks and set up the remainder of the Service offering.</td>
</tr>
<tr>
<td>Add additional BU fields in the SR if users are associated with multiple BUs.</td>
<td>Change the layouts of the SR pages if required. Use Application Composer to include multiple BU fields in the SRs.</td>
</tr>
</tbody>
</table>

**Note:**
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.

For more information, see the Oracle CX Service Implementing Digital Customer Service guide.

**Related Topics**
- Configure Multiple Business Units with Digital Customer Service

---

Manage Common CRM BU Profile Options for Service BUs

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:
   - Offering: Service
   - Functional Area: Company Profile
   - 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**.

**Related Topics**
- Update Existing Setup Data
- Set Up an Offering with Scope

---

**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:
   - Offering: Service
   - Functional Area: Users and Security
   - 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**
- 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:
   - Offering: Service
   - Functional Area: Users and Security
   - 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**

- 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: Business Units
   - 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
- 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.
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 **Autopropvision Roles**. This gives the user any predefined job roles.
13. 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 CX Using Customer Data Management for CX Sales and B2B Service* guide.

**Related Topics**

- Overview of Setting Up Users and Security
- About Security Roles: Explained
- 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**.

   **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.

   **Note:**

   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.
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.

<table>
<thead>
<tr>
<th>Service Task</th>
<th>Related Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Business Unit</td>
<td>Define Business Units</td>
</tr>
<tr>
<td>Manage Service Product Groups Usage for Business Unit</td>
<td>Defining a Catalog for the Service Offering: Explained</td>
</tr>
<tr>
<td>Manage HR Help Desk Product Group Usage for Business Unit</td>
<td>Associate Different Catalogs to Different Business Units</td>
</tr>
<tr>
<td>Manage Service Categories for Business Unit</td>
<td>Manage Service Request Categories</td>
</tr>
<tr>
<td>Manage HR Help Desk Service Categories for Business Unit</td>
<td>Manage Service Request Categories and Product Usage Groups for HR Help Desk</td>
</tr>
<tr>
<td>Manage Communication Channels for Business Unit</td>
<td>Managing Communication Channels</td>
</tr>
<tr>
<td>Manage Service Email Templates for Business Unit</td>
<td>Define Email Templates</td>
</tr>
<tr>
<td></td>
<td>Configure HR Help Desk Email</td>
</tr>
</tbody>
</table>
### Manage HR Help Desk Email Templates for Business Unit

**Note:**
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 All Tasks. For each task, click the Scope link and select the BU that you want. When you finish, click the Select and Go to Task button.

### 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

### 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:
   - Service Request Administrator
   - Service Request Power User
   - Service Request Troubleshooter
   - Service Request Contributor
   - 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. And 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 *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 *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
  • Set Up Service Request 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.
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 "Defining a Catalog for the Service Offering: Explained".

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
- Overview of Sales Catalog Setup Steps
- Defining a Catalog for the Service Offering: Explained
20 Set Up Survey Integration

Overview of Survey Framework

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.

This chapter talks about the steps to enable the survey integration framework, and takes you through example configuration steps using SurveyMonkey and the service requests object. For a successful survey configuration, you must follow the steps as they appear in this chapter. The following graphic shows the set up steps.

Survey Requirements and Licensing

You must have subscriptions to the following cloud services to implement the Survey Integration Framework:

- Oracle B2B 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 B2B 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 B2B Service Administrator User for Connecting to Oracle Integration

You must create a user that's used to connect from Oracle Integration to B2B 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)

Related Topics

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.
6. Click Get App.
7. Review and accept the Terms and Restrictions.
8. Click Next.

The package has two files with the following extensions:
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

**Configure the Integration Connections**

Complete the integration between Oracle B2B 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 B2B 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:

- 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:

- View Responses
- View Response details
- View Users
- View Surveys
- View Contacts
- View Collectors
- Create/modify Contacts
- 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.

<table>
<thead>
<tr>
<th>Required Security Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Policy</td>
<td>Select <strong>OAuth Custom Three Legged Flow</strong> from the drop-down list</td>
</tr>
<tr>
<td>Authorization Request</td>
<td>Enter the Authorization Request that's appropriate for your site. For example, <a href="https://api.surveymonkey.com/oauth/authorize?response_type=code&amp;redirect_uri=$%7Bredirect_uri%7D&amp;client_id=xxx">https://api.surveymonkey.com/oauth/authorize?response_type=code&amp;redirect_uri=${redirect_uri}&amp;client_id=xxx</a></td>
</tr>
</tbody>
</table>
Oracle CX Service
Implementing B2B Service
Chapter 20
Set Up Survey Integration

<table>
<thead>
<tr>
<th>Required Security Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Token Request</td>
<td>Enter the Access Token Request that's appropriate for your site. For example, <code>-X POST -H &quot;Content-Type: application/x-www-form-urlencoded&quot; -d &quot;code=${auth_code}&amp;redirect_uri=${redirect_uri}&amp;grant_type=authorization_code&amp;client_id=xxx&amp;client_secret=yyy&quot; https://api.surveymonkey.com/oauth/token</code> where xxx is Client ID and yyy is Client Secret</td>
</tr>
</tbody>
</table>

8. Click **Provide Consent**. For more information, see the FAQs in this chapter.

Before continuing, make sure you receive a success message (access allowed).

9. 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.

10. Enter your SurveyMonkey User Name and Password.
11. Click **Save** on the Provide Consent window.
12. Click **Test**.

    You see a message saying the test was successful.
13. Click **Save**.

    You see a window listing the integrations that are using the connection.
14. Click **Save** on window.
15. 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 B2B Service Instance Connection**
This connection is used by Oracle Integration to get survey details from B2B Service

1. On the Oracle Integration home page, click **Connections**.
2. On the Connections page, find Survey Integration Engagement Cloud Connection.
3. Go to the Survey Integration Engagement Cloud Connection Detail page.
4. 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.

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSC Service Catalog</td>
<td>Enter the service catalog URL for your Oracle B2B Service instance. For example: https://&lt;CRM domain WSDL URL host&gt;/fndAppCoreServices/ServiceCatalogService?wsdl</td>
</tr>
<tr>
<td>OSC Event Catalog URL</td>
<td>Optionally, enter the event catalog URL for your Oracle B2B Service instance. For example: https://&lt;CRM domain host&gt;/soa-infra</td>
</tr>
<tr>
<td>Interface Catalog URL</td>
<td>Enter the interface catalog URL for your Oracle B2B Service instance. For example: https://&lt;CRM domain host&gt;/helpPortalApi/otherResources/latest/interfaceCatalogs</td>
</tr>
</tbody>
</table>

5. In the Security region, enter the values as shown in the following table.

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name</td>
<td>&lt;B2B SERVICE USER NAME&gt;</td>
</tr>
<tr>
<td>Password</td>
<td>Enter the password.</td>
</tr>
<tr>
<td>Confirm Password</td>
<td>Reenter the password.</td>
</tr>
</tbody>
</table>

6. Click the **Test** button. It may take some time for the user <B2B SERVICE USER NAME> to synchronize with the directory. 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**.

9. Click **Close** on the Survey Integration Oracle Integration Connection page.

**Configure the Survey Integration Oracle Integration Connection**

This connection is used by B2B Service to connect to Oracle Integration.

1. On the Oracle Integration home page, click **Connections**.
2. On the Connections page, find Survey OIC Connection.
3. Click **Survey OIC Connection**.
4. Enter the values as shown in the following table.
### Set Up Survey Integration

<table>
<thead>
<tr>
<th>Connection Property</th>
<th>Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Type</td>
<td>REST API Base URL</td>
</tr>
<tr>
<td>Connection URL</td>
<td>Enter the Oracle Integration host name URL shown in your browser's address bar. For example: <a href="https://oicapps-oicdevqa.integration.ocp.oraclecloud.com">https://oicapps-oicdevqa.integration.ocp.oraclecloud.com</a></td>
</tr>
</tbody>
</table>

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

#### 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

Activate the Survey Integration Flow

After importing the integration package and successfully connecting Oracle B2B 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:
   - Click the Activate icon in the Status column for your integrations package.
   - 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.
   - 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 B2B Service.

Endpoints connect your surveys from your survey supplier to B2B Service so when you’re creating a survey template, all your surveys are visible in B2B 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 B2B Service.

### Create Your Survey

Once you have completed the previous steps, continue setting up Survey in B2B 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 B2B 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 B2B 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

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 B2B Service

Follow these steps to enable and set up the Survey feature in B2B Service.

**Note:** You must be a B2B 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:
   - Offering: Service
   - Feature: Surveys
   - 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:
   - Offering: Service
   - Feature: Surveys
   - 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.
6. Click Save and Close.

Manage Survey Configurations

You can now configure Survey in B2B 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 B2B 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:
   - Offering: Service
   - Feature: Surveys
   - 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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a name for the configuration.</td>
</tr>
<tr>
<td>Description</td>
<td>Enter a description for the configuration.</td>
</tr>
<tr>
<td>Integration User</td>
<td>Enter your Oracle Integration User Name</td>
</tr>
<tr>
<td>Integration Password</td>
<td>Enter your Oracle Integration Password</td>
</tr>
<tr>
<td>Integration Endpoint URL</td>
<td>Paste the endpoint URL that you noted earlier.</td>
</tr>
<tr>
<td></td>
<td>For example: <a href="https://oicapps-oicdevqa.integration.ocp.oraclecloud.com:443/ic/api/integration/v1/flows/rest/GET_SURVEYMONKEY_SURVEYS/1.0/surveys">https://oicapps-oicdevqa.integration.ocp.oraclecloud.com:443/ic/api/integration/v1/flows/rest/GET_SURVEYMONKEY_SURVEYS/1.0/surveys</a>? [Page-value]&amp;PerPage=[PerPage-value]&amp;Name=[Name-value]</td>
</tr>
</tbody>
</table>

**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:
   - Offering: Service
   - Feature: Surveys
   - Task: Manage Survey Templates (to create and manage general SR survey templates)
     - Or
   - Task: Manage Survey Templates for HR Help Desk (to create and manage survey templates for HR Help Desk surveys)
1. To create a template, click Add.
2. Enter a Name and Description for the template.
3. Select the SurveyMonkey Configuration Name from the drop-down list.
   This name comes from the configuration you created in the Manage Survey Configurations task.
4. Enter a Start Date for the survey.
5. Optionally, enter an End Date.
6. 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.
7. Select the External Survey Name from the drop-down list.
   The list is of all the surveys you have in SurveyMonkey.
8. Enter the External Survey URL.
   This is the direct link to your third-party survey.
9. Select a Decision Model Space.
   The decision model space is the one you created earlier.
10. Select a Decision Model Name.
    The decision model name is the one you created earlier.
11. 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 B2B 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 B2B Service so BI reports can be run to view the data.

Related Topics

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:
   - The SurveyMonkey survey is visible under External Survey.
   - 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.

Related Topics

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 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 B2B 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.
   - If the value is true or false, type either true or false.
   - If the value is a number, you can type any number.
   - 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.

<table>
<thead>
<tr>
<th>JSON Syntax</th>
<th>Sample (last few lines of the sample JSON payload)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original:</td>
<td>&quot;CaseNumber&quot; : &quot;ABCDEFGH1&quot;, &quot;CaseId&quot; : &quot;ABCDEFGH1JK&quot;, &quot;PrimaryContactPersonId&quot; : &quot;ABCDEFGH1JKLMNOPQRSTUW&quot; }</td>
</tr>
<tr>
<td>Adding a true/false field:</td>
<td>&quot;CaseNumber&quot; : &quot;ABCDEFGH1&quot;, &quot;CaseId&quot; : &quot;ABCDEFGH1JK&quot;, &quot;PrimaryContactPersonId&quot; : &quot;ABCDEFGH1JKLMNOPQRSTUW&quot;, &quot;MyBooleanField&quot;: true }</td>
</tr>
<tr>
<td>Adding a text field:</td>
<td>&quot;CaseNumber&quot; : &quot;ABCDEFGH1&quot;, &quot;CaseId&quot; : &quot;ABCDEFGH1JK&quot;, &quot;PrimaryContactPersonId&quot; : &quot;ABCDEFGH1JKLMNOPQRSTUW&quot;, &quot;MyTextField&quot;: &quot;blahblahblah&quot; }</td>
</tr>
<tr>
<td>Adding a date/time field:</td>
<td>&quot;CaseNumber&quot; : &quot;ABCDEFGH1&quot;, &quot;CaseId&quot; : &quot;ABCDEFGH1JK&quot;, &quot;PrimaryContactPersonId&quot; : &quot;ABCDEFGH1JKLMNOPQRSTUW&quot;, &quot;MyDateField&quot;: &quot;2020-06-01&quot; }</td>
</tr>
<tr>
<td>Adding a number field:</td>
<td>&quot;CaseNumber&quot; : &quot;ABCDEFGH1&quot;, &quot;CaseId&quot; : &quot;ABCDEFGH1JK&quot;, &quot;PrimaryContactPersonId&quot; : &quot;ABCDEFGH1JKLMNOPQRSTUW&quot;, &quot;MyNumberField&quot;: 1234 }</td>
</tr>
<tr>
<td>JSON Syntax</td>
<td>Sample (last few lines of the sample JSON payload)</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>)</td>
</tr>
</tbody>
</table>

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.
Export and Import the Functional Setup Data for Surveys

You may have created the functional setup for the Survey feature in your test environment. When you're ready to export the data and import it into your production environment, you can use 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.
6. Verify the survey integration is working.
   - For more information about configuration, see the Manage Survey Configuration topic earlier in this chapter.
   - 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.

2. Log in to SurveyMonkey.
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

FAQs About Survey Integration

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 B2B 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 B2B Service?

You can find the sample survey framework integration package on Oracle Marketplace.

Related Topics

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 B2B 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.

Related Topics

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 B2B 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?

The survey object isn't extensible.

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 B2B 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
21 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 B2B 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.

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Instant Cobrowse Mode</th>
<th>Advanced Cobrowse Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connect in less than 10 seconds</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Customer is using a mobile browser</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Cobrowse the company's web pages</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rich media present on page (such as Flash others)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cobrowse third party sites (partner websites, resource websites, and so on)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cobrowse content outside of the browser (settings, windows, applications, and so on)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Configure field masking to block sensitive information</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
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)?
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 cross-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.
22 Configure Notifications

Set Notification Triggers and Preferences

Enable Notifications for Service Requests

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.

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 Productivity Tools > Change Feature Selection.
   The Edit Features: Productivity Tools page is displayed.
5. Select the Enable check box for Notifications.

When the Notifications feature is enabled, bell notifications are automatically enabled for service requests.

6. Enable the required notification delivery channels:
   - To enable push notifications for mobile devices, select the Enable check box for Mobile Notifications.
   - To enable browser notifications, select the Enable check box for Browser Notifications.
   - To enable email notifications, select the Enable check box for Use Email as a Notification Delivery Channel.

How You 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.

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.

---

**Related Topics**

- Overview of Sandboxes
- Create and Activate Unified Sandboxes
- Publish Unified Sandboxes

---

**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.

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 respective objects:

**Note:** In addition to these ready-to-use recipients, any administrator-defined recipient of type Resource (Party ID) is also available as a notification recipient.

### Recipients for Service Request Object

<table>
<thead>
<tr>
<th>Delivery Options for Service Request Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Assigned To</strong>: Resource to whom the service request is assigned.</td>
</tr>
<tr>
<td>- <strong>Manager of Assigned To</strong>: Manager of the resource to whom the service request is assigned.</td>
</tr>
<tr>
<td>- <strong>Resource Team</strong>: Additional resources that have been added to a service request on the Team subtab. 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.</td>
</tr>
<tr>
<td>- <strong>Queue Owner</strong>: Owner of the queue. 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.</td>
</tr>
</tbody>
</table>

### Delivery Options for Service Request Object

- **Bell Notifications**: Sends a bell notification to the web application.
- **Mobile Notifications**: Sends a mobile push notification to the Oracle CX Cloud Mobile application.
- **Browser Notifications**: 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.
- **Email Notifications**: Sends an email notification to the selected internal recipients' primary work email ID saved in the application.

**Note:** The from email address is configured through the SVC.OUTBOUND_EMAIL_FROM profile option. If that isn't specified, the default from email address noreply@oracle.com is used.

### Recipients for Work Order Object

<table>
<thead>
<tr>
<th>Delivery Options for Work Order Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Assigned To</strong>: Resource to whom the work order is assigned.</td>
</tr>
<tr>
<td>- <strong>Created By</strong>: The user who created the Work Order</td>
</tr>
</tbody>
</table>

- **Bell Notifications**: Sends a bell notification to the web application.
- **Browser Notifications**: 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.
Recipient for Work Order Object

- **Field Service Resource ID:** The resource ID being used to complete the work order.
- **Last Updated By:** The user who last updated the work order.
- **Manager of Assigned To ID:** Manager of the resource to whom the work order is assigned.

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.

- **Requested By:** The user who reported this work order.

Delivery Options for Work Order Object

- **Email Notifications:** Sends an email notification to the selected internal recipients' primary work email ID saved in the application.

  **Note:** The from email address is configured through the SVC_OUTBOUND_EMAIL_FROM profile option. If that isn't specified, the default from email address noreply@oracle.com is used.

### 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 "Using SmartText" in Related Topics.

### 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.

Related Topics

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 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. 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.
Chapter 22
Configure Notifications

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 Unified Sandboxes
- Publish Unified 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 Unified Sandboxes
- Publish Unified Sandboxes
Sample Groovy Scripts for Notifications

Service Request Assigned

Here's a sample code to trigger a notification to be sent to the recipient specified in the Notification Preferences page when the service request (SR) is assigned. You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Server Scripts.

```groovy
/* 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 Resolved

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 resolved. You can copy and paste this sample code in Application Composer > Objects > Standard Objects > Service Request > Server Scripts.

| Note: You must set the SVC_ENABLE_RESOLVE_SR profile option for the SR resolved Groovy script to work correctly. |

```groovy
/* DISCLAIMER: This trigger is provided only as a reference. 
* TRIGGER TYPE: Before Update in Database 
* OBJECT: Service Request 
* Use Case: Send a notification to the primary contact when an SR has been resolved.
*/
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 resolved.");
        } 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())
    }
}
```
* Note: You can override the Notification Text and Recipients using the Notification Preferences page. */

if (isAttributeChanged('StatusCd') && StatusCd == 'ORA_SVC_RESOLVED') {
try {
  def recipientPartyId = PrimaryContactPartyId
  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 resolved.")
  } 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).'

  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());
}
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.

```java
/* 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 {
    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())
}
Expired Milestone

Here's a 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.

```groovy
/* 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());
    }
}
```

Work Order Assigned

Here's a 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.

```groovy
/* 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'.
} else {
    println("No Assignee associated with this Work Order")
}
} catch (e) {
    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

Here's a sample code to trigger 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) {
            afd.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) {
        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 clicking the Notifications icon on the global header. Notifications can be dismissed after viewing, or dismissed in bulk.

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.
23 Understand Service Analytics

How You Implement Service Analytics

Oracle Transactional Business Intelligence (OTBI) is a real time, self-service reporting solution bundled with your service 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 analyses based on your requirements using subject areas.

- 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. Here’s where you can find additional information:

- The "Configure Infolets" related topic provides information about how to create and manage infolets.
- The "Set Up Sales Infolet Pages" related topic provides information about how to enable infolets on the dashboard.
- The "Create and Edit Analytics" related topic provides information about how to build analytics.

Related Topics

- About Security Roles
Service Analytics Roles

The Service analyses are visible for the customer service representative, customer service manager, sales administrator, help desk agent, help desk manager, and help desk administrator job roles. Analyses and the underlying data is secured through a set of delivered OTBI transaction analysis duty roles. These duty roles are assigned to the service representatives, service managers, help desk agents, and help desk managers, and determine what analyses can be accessed by each. These OTBI transaction analysis duty roles control the subject areas and analyses a user can access. These roles also control the data that the signed in user can see in the analyses. This aligns with the data security privileges for the user in the transaction system.

The administrator 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 topic "About Security Roles". Here's a table that shows the job and duty role mapping required for a user to access the Service analyses:

<table>
<thead>
<tr>
<th>Infolet Name</th>
<th>Job Role</th>
<th>OTBI Transactional Analysis Duty Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Agents with Most Pending Service Requests</td>
<td>• Customer Service Manager</td>
<td>• Service Manager Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Long Wait on Agent</td>
<td>• Human Resource Help Desk Manager</td>
<td>• Service Manager Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Queues by Unassigned Service Requests</td>
<td>• Sales Administrator</td>
<td>• Service Manager Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Team Resolve Time</td>
<td>• Human Resource Help Desk Administrator</td>
<td>• Service Manager Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Critical Service Requests</td>
<td></td>
<td>• HR Help Desk Manager Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Inbound Emails</td>
<td></td>
<td>• Service Administrative Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Team SR Work Time</td>
<td></td>
<td>• HR Help Desk Administrator Transaction Analysis Duty</td>
</tr>
<tr>
<td>• My Resolve Time</td>
<td>• Customer Service Representative</td>
<td>• Service Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Pending Tasks</td>
<td>• Human Resource Help Desk Agent</td>
<td>• HR Help Desk Agent Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Waiting on Me</td>
<td>• Sales Administrator</td>
<td>• Service Administrative Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Waiting on Customer</td>
<td>• Human Resource Help Desk Administrator</td>
<td>• HR Help Desk Administrator Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Inbound Social Posts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Omnichannel Agent Assignments</td>
<td>• Customer Service Manager</td>
<td>• Service Managerial Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Omnichannel Assignments</td>
<td>• Sales Administrator</td>
<td>• Service Managerial Transaction Analysis Duty</td>
</tr>
<tr>
<td>• Omnichannel Queue Assignments</td>
<td></td>
<td>• Service Administrative Transaction Analysis Duty</td>
</tr>
</tbody>
</table>

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### Service 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 a complete listing of the service subject areas, see "Service Subject Areas" in Related Topics. 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 "Analyzing Knowledge" in Related Topics.

### Overview of Parent and Child Interactions in Service 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. For more information about cross-channel interactions, see "Cross-Channel Interactions" in Related Topics.

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.

Related Topics

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:

<table>
<thead>
<tr>
<th>Analyses Name</th>
<th>Description</th>
<th>Job Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRs assigned to me</td>
<td>Saved query to retrieve the list of SRs assigned to the signed in user. Apply this on the Service Request ID column when used in analyses.</td>
<td>• Customer Service Representative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HR Help Desk Agent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sales Administrator</td>
</tr>
<tr>
<td>SRs where I am on the team</td>
<td>Saved query to retrieve the list of SRs where the signed in user is part of the SR team. Apply this on the Service Request ID column when used in analyses.</td>
<td>• Customer Service Representative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HR Help Desk Agent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sales Administrator</td>
</tr>
<tr>
<td>SRs assigned to me or my subordinates</td>
<td>Saved query to retrieve the list of SRs assigned to the signed in user or the user's subordinates. Apply this on the Service Request ID column when used in analyses.</td>
<td>• Customer Service Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HR Help Desk Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sales Administrator</td>
</tr>
<tr>
<td>Analyses Name</td>
<td>Description</td>
<td>Job Role</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
</tbody>
</table>
| 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 Service Request ID column when used in analyses. | • Customer Service Manager  
• HR Help Desk Manager  
• Sales Administrator                                      |
| 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 Queue ID column when used in analyses. | • Customer Service Representative  
• HR Help Desk Agent  
• Sales Administrator                                      |
| 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 Queue ID column when used in analyses. | • Customer Service Manager  
• HR Help Desk Manager  
• Sales Administrator                                      |
| Work Orders assigned to me                             | Saved query to retrieve the list of work orders assigned to the signed in user. Apply this as a filter on the Work Order ID column when used in analyses. | • Customer Service Representative  
• Sales Administrator                                      |
| Work Orders assigned to me or my subordinates          | Saved query to retrieve the list of work orders assigned to the signed in user or the user’s subordinates. Apply this as a filter on the Work Order ID column when used in analyses. | • Customer Service Manager  
• Sales Administrator                                      |
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 Understanding Import and Export Management for CX Sales and B2B 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 Understanding Import and Export Management for CX Sales and B2B 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 Understanding

Related Topics
• Overview of Bulk Data Export
• Overview of Import and Export of Custom Objects

Use Functional Setup Manager to Import, Export, and Compare Service 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 Using Functional Setup Manager guide.
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 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 service requests. 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 service requests. 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

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.


25 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 B2B 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:
   - Offering: Service
   - 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:
   - Offering: Service
   - Functional Area: Work Order
   - 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.

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.
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.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Type Code</td>
<td>Yes</td>
<td>Value of the label property from the corresponding activity type.</td>
</tr>
<tr>
<td>Work Order Type Code</td>
<td>Yes</td>
<td>Unique code for a work order type.</td>
</tr>
<tr>
<td>Work Order Type</td>
<td>Yes</td>
<td>Value that's visible to the user in the work order.</td>
</tr>
<tr>
<td>Manual Duration</td>
<td>Yes</td>
<td>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.</td>
</tr>
<tr>
<td>Description</td>
<td>No</td>
<td>General description of the work to be performed.</td>
</tr>
</tbody>
</table>

**CAUTION:** Work order types can't be deleted.

5. Click **Save and Close**.

**Related Topics**
- 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.

<table>
<thead>
<tr>
<th>Column</th>
<th>Editable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status Code</td>
<td>No</td>
<td>Predefined status code. Work order status codes can't be deleted.</td>
</tr>
<tr>
<td>Status</td>
<td>Yes</td>
<td>Status that appears on work orders in B2B Service.</td>
</tr>
<tr>
<td>Status Category</td>
<td>Yes</td>
<td>Category which an agent can filter work order statuses when querying work orders from the work order tab.</td>
</tr>
<tr>
<td>Display Order</td>
<td>Yes</td>
<td>Determines the sort order of the work order types on the work order page.</td>
</tr>
<tr>
<td>Description</td>
<td>Yes</td>
<td>Description of the status. This description doesn't appear anywhere outside of the setup task.</td>
</tr>
</tbody>
</table>

The following table shows predefined values for work order statuses.
<table>
<thead>
<tr>
<th>Status Code</th>
<th>Status</th>
<th>Status Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_SVC_WO_CANCEL_SUBMITTED</td>
<td>Cancel Submitted</td>
<td>Canceled</td>
<td>A cancellation request was submitted for the work order.</td>
</tr>
<tr>
<td>ORA_SVC_WO_COMPLETE</td>
<td>Complete</td>
<td>Closed</td>
<td>The activity was completed.</td>
</tr>
<tr>
<td>ORA_SVC_WO_NOT_DONE</td>
<td>Not Done</td>
<td>Closed</td>
<td>The activity wasn't completed. Create a new work order and schedule work to continue another day.</td>
</tr>
<tr>
<td>ORA_SVC_WO_CANCELED</td>
<td>Canceled</td>
<td>Canceled</td>
<td>The work order activity was canceled.</td>
</tr>
<tr>
<td>ORA_SVC_WO_SUSPENDED</td>
<td>Suspended</td>
<td>Closed</td>
<td>The activity is delayed and the work continues later in the day.</td>
</tr>
<tr>
<td>ORA_SVC_WO_PENDING</td>
<td>Scheduled</td>
<td>Open</td>
<td>An activity was created and is now scheduled.</td>
</tr>
<tr>
<td>ORA_SVC_WO_STARTED</td>
<td>Started</td>
<td>Open</td>
<td>The activity is in progress.</td>
</tr>
<tr>
<td>ORA_SVC_WO_SUBMITTED</td>
<td>Submitted</td>
<td>Open</td>
<td>A work order was submitted.</td>
</tr>
</tbody>
</table>

**Related Topics**

- 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.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Default Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_WO_NUMBER_FORMAT</td>
<td>0000000000</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> This format overrides the format identified in the RADIX for the Manage Public Unique Identifier Sequence Generation.</td>
</tr>
<tr>
<td>SVC_ENABLE_AUDIT_IN_WO</td>
<td>No</td>
<td>Exposes the audit feature tab on the Work Order detail page so users can view the Work Order audit records.</td>
</tr>
</tbody>
</table>
### Profile Option

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Default Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_WO_FIELD_SERVICE_OPT_IN</td>
<td>No</td>
<td>Turns the work order functionality on and exposes work orders to users.</td>
</tr>
</tbody>
</table>

**Note:**
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.

---

**Note:**
The default prefix for work orders is CDRM. To change the prefix for work orders, do the following:

1. Offering: Sales
2. Functional Area: Sales Foundation
3. 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:
   - Offering: Service
   - Functional Area: Work Order
   - 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 B2B 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:

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.
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.

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.

**Modify the Generic Work Order Fields**

Here’s how you modify fields:

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 Unified Sandboxes
- Publish Unified Sandboxes

**Create a B2B Service Integration User Account for Other Applications**

All inbound requests to B2B Service are routed through Oracle Integration. To make the update in B2B Service, Oracle Integration initiates the APIs for B2B Service that are exposed in the Oracle CX Sales Catalog.

To initiate the Oracle CX 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 CX 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name</td>
<td>SERVICE_APP_ICS_ID</td>
</tr>
</tbody>
</table>
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:

2. Click Create Role.
3. Complete the fields as shown on the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Name</td>
<td>SVC Soa Operator</td>
</tr>
<tr>
<td>Role Code</td>
<td>SVC_SOA_OPERATOR</td>
</tr>
<tr>
<td>Role Category</td>
<td>CRM - Job Roles</td>
</tr>
</tbody>
</table>

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.

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**.
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 B2B Service. To verify the integration user was set up correctly, sign in to Oracle B2B 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 B2B Service you must first create a CSF key which stores credentials which allow Oracle B2B 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:

<table>
<thead>
<tr>
<th><strong>Note:</strong> You must have SOA Designer application role to sign in and perform the following task.</th>
</tr>
</thead>
</table>
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 B2B Service and copying the first part of the URL and replacing the "hostname:port" section of the SOA Composer URL.
2. Click **Manage Security**.

---

**ORACLE**

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3. Complete the fields as shown on the following table. The values are located in the email you received when Oracle Integration was provisioned.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>csf-key</td>
<td>&lt;Oracle Integration Identity Domain&gt;</td>
</tr>
<tr>
<td></td>
<td>Here's how to access the domain value. First, you must have at least one OIC flow activated. Next, use the same hostname:port to access the list of subscriptions at the following location: <a href="http://hostname:port/soa-infra/PublicEvent/subscriptions">http://hostname:port/soa-infra/PublicEvent/subscriptions</a>. In the first line look for the CSF Key. For example, {&quot;subscriptions&quot;: [{&quot;csfKey&quot;: &quot;Sample.xx.xxx.com&quot;}. Using this example, your CSF-Key value is: Sample.xx.xxx.com</td>
</tr>
<tr>
<td>User Name</td>
<td>&lt;User Name from Oracle Integration Integration User&gt;</td>
</tr>
<tr>
<td>Password</td>
<td>&lt;Password from Oracle Integration Integration User&gt;</td>
</tr>
<tr>
<td>Confirm Password</td>
<td>&lt;Password from Oracle Integration Integration User&gt;</td>
</tr>
</tbody>
</table>

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:

```
```

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 B2B Service and Oracle Field Service integration supports customers who want to synchronize B2B 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 B2B Service work order which triggers the creation of an Field Service activity.
- Creating a Field Service activity from an B2B Service work order including:
  - Update
  - Reschedule
  - Cancel
- Updating B2B Service work orders from Field Service including:
  - Update
  - Move
  - Start
  - Suspend
  - Cancel
  - Not Done
  - Complete

Related Topics

Integration Component Architecture Between Oracle B2B Service and Oracle Field Service

Service work order management is the primary use case handled in the Oracle B2B Service and Oracle Field Service integration.

Service work order management has both work order creation and updates in Oracle B2B 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 B2B Service work orders with Oracle Field Service activities. Oracle B2B 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 B2B Service, Oracle Integration, and Field Service.

The following figure shows the point-to-point components of the Oracle B2B Service and Oracle Field Service integration using the Oracle Field Service Capacity API to retrieve the data work order area list in Oracle B2B Service from Oracle Field Service.
Oracle B2B Service Integration Services

The B2B 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 B2B 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 B2B 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:

   - You can either use the **Search** field and enter criteria such as Oracle B2B 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 B2B 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 B2B 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 B2B Service and Oracle Field Service. This means that when an event is triggered in Oracle B2B 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 B2B Service, on and on. The Oracle Integration-based integration uses an echo suppression mechanism, which stops unwanted update or create events (the echos) from going back to the source application.

**CAUTION:** You must follow the user name guidelines for the Oracle B2B 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.

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
<th>Foreign Key To Merge To Table's Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>account_party_id</td>
<td>Account for this work order.</td>
<td>hz_parties.party_id</td>
</tr>
<tr>
<td>contact_party_id</td>
<td>Contact for this work order.</td>
<td>hz_parties.party_id</td>
</tr>
<tr>
<td>contact_party_site_id</td>
<td>Work order party site where the service will be performed.</td>
<td>hz_party_sites.party_site_id</td>
</tr>
</tbody>
</table>

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 .rdr 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):

<table>
<thead>
<tr>
<th>Number</th>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(\text{WoIntegrationCatCd} = &quot;\text{ORA_WO_INT_CAT_EXTERNAL}&quot;)</td>
<td>The work order has a category of external. This category is defined as: (\text{WoIntegrationCd} \neq \text{ORA_WO_INT_SVC}).</td>
</tr>
</tbody>
</table>
### Set Up Service Work Orders

<table>
<thead>
<tr>
<th>Number</th>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>(WoIntegrationCd = &quot;ORA_WO_INT_OFSC&quot;)</td>
<td>The work order integrates with OFS.</td>
</tr>
<tr>
<td>3</td>
<td>(WoStatusCd = &quot;ORA_SVC_WO_PENDING&quot;)</td>
<td>The work order is open.</td>
</tr>
</tbody>
</table>
| 4      | \(WoIntegrationStatusCd\) is one of:  
  
  - "ORA_WO_INT_CREATE_SUCCESSFUL",  
  - "ORA_WO_INT_UPDATE_SUCCESSFUL",  
  - "ORA_WO_INT_RESCHED_SUCCESSFUL",  
  - "ORA_WO_INT_FS_UPDATE_RECEIVED",  
  - "ORA_WO_INT_FS_UPDATE_FAILED",  
  
  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. |
| 5      | \(scheduledDate\) 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):

<table>
<thead>
<tr>
<th>Number</th>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(WoIntegrationCatCd = &quot;ORA_WO_INT_CAT_EXTERNAL&quot;)</td>
<td>The work order has a category of external. This category is defined as: (WoIntegrationCd) isn't &quot;ORA_WO_INT_SVC&quot;.</td>
</tr>
<tr>
<td>2</td>
<td>(WoIntegrationCd) isn't &quot;ORA_WO_INT_OFSC&quot;</td>
<td>The work order doesn't integrate with OFS. (WoIntegrationCd) will contain some custom value, not the predefined values of ORA_WO_INT_SVC or ORA_WO_INT_OFSC.</td>
</tr>
</tbody>
</table>
| 3      | \(WoIntegrationStatusCd\) is one of:  
  
  - NULL  
  - "ORA_WO_INT_CREATE_SUCCESSFUL",  
  - "ORA_WO_INT_UPDATE_SUCCESSFUL",  
  - "ORA_WO_INT_RESCHED_SUCCESSFUL",  
  
  The work order is open. |
<table>
<thead>
<tr>
<th>Number</th>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WoIntegrationCatCd = &quot;ORA_WO_INT_CAT_INTERNAL&quot;</td>
<td>The work order has a category of Internal making it a Generic Work Order. This category is defined as: WoIntegrationCd is 'ORA_WO_INT_SVC'.</td>
</tr>
</tbody>
</table>

**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):

**FAQs about Merging Accounts and Contacts**

**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 You Merge Duplicate Records
- Automerge

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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 You Merge Duplicate Records
- Automerge
Set Up Additional Service Features

Installed Base Assets

Enable Installed Base Assets for Service Requests and Work Orders

If you’re an Oracle Cloud customer that uses 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 your service request and work order processes.

Once you opt-in, the Installed Base Asset fields can be added to the Service Request and Work Order page layouts in Application Composer. From here, the installed base asset ID can then be passed to downstream processes such as Field Service or Service Logistics.

Enable Installed Base Assets

To opt in, do the following:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Change Feature Opt in link
2. Click the Features icon for Service in the first row.
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 B2B 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 CX Sales and B2B Service and has limited support for extensibility.

Related Topics

FAQs About Installed Base Assets

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

Enable Case Management
If you have customer interactions that stretch over long periods of time, or may involve multiple parties, you can use the case object to manage these types of customer interactions and relate them to other objects such as service requests. Once you opt-in, the case related objects are available through the REST API.

Expose the Case Feature
To opt in, do the following:
1. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Change Feature Opt in link
2. Click the Features icon for the Service offering.
3. Select Enable for Case.

Related Topics

Assign Cases to Queues
You can define rules to assign cases to queues in Assignment Manager. Administrators can initiate the rules with a single API call.
Here's how to define and execute rules to assign to cases.
1. Go to Setup and Maintenance.
   - Setup: Service
   - Functional Area: Communication Channels
   - Show: All Tasks
   - Task: Manage Service Assignment Rules
2. Select **Case Queuing Rule** from the Category drop-down list.
3. Add the Rule Sets.
5. Add Conditions and Actions in the Rules.
   - The action is where the queue is specified.
   - The case is assigned to the appropriate queue if the corresponding Rule matches.

| Note: | The Rule Set can assign cases to existing queues or you can create new queues for your cases.

6. Click **Save and Publish**.
7. To perform assignment for a case, initiate a call to the `assignQueue` REST API for the case.

**Related Topics**
- **Set Rules for Queue Assignment**

---

### 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 B2B 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**

#### 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:
   - Copy Service Request Map
   - 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:
   - other standard/OOTB fields,
   - custom fields,
   - 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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>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.</td>
</tr>
<tr>
<td>Map Group</td>
<td>Select the required mapping group for the new copy map from the drop-down list.</td>
</tr>
<tr>
<td>To</td>
<td>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.</td>
</tr>
<tr>
<td>From</td>
<td>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.</td>
</tr>
</tbody>
</table>

8. In the **Entity Mappings** section, add a record for each view object that you're copying by completing these fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To</td>
<td>Select the new object that you're copying to.</td>
</tr>
<tr>
<td>From</td>
<td>Select the existing view object that you're copying from.</td>
</tr>
<tr>
<td>Query Type</td>
<td>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.</td>
</tr>
<tr>
<td>Query Attribute</td>
<td>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.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Joined View Object and Joined Attribute</td>
<td>If you selected Join in the <strong>Query Type</strong> field, then use these two fields to specify:</td>
</tr>
<tr>
<td></td>
<td>◦ The view object to which this object is joined</td>
</tr>
<tr>
<td></td>
<td>◦ The attribute used as the basis of the join</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To</td>
<td>Select the attribute to which the selected entity is copied.</td>
</tr>
<tr>
<td>Referenced View Object</td>
<td>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.</td>
</tr>
<tr>
<td>Primary Key</td>
<td>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.</td>
</tr>
<tr>
<td>From</td>
<td>Select the attribute from which the selected entity is copied.</td>
</tr>
<tr>
<td>From Expression</td>
<td>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.</td>
</tr>
</tbody>
</table>

10. Click **Save and Close**.


27 Extend B2B Service

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:

- **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.
- **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.
- **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.
- **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.
   ○ 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 Unified Sandboxes
- Publish Unified 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:
   - Offering: Service
   - Functional Area: Productivity and Tools
   - 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:
   - Offering: Service
   - Functional Area: Productivity Tools
   - 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 CX Securing CX Sales and B2B 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 returned 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

- 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 B2B Service by duplicating the standard layout and updating the changes you want. The following procedure describes how to modify the SR page layouts.

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 to allow continuity as a user is working through a service request. The user can also collapse the Spotlight region if needed.

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_ATTACHMENT_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_ATTACHMENT_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:
   - If you have already defined a context in the past, then search for that context.
   - 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:
  - Internal
    - Category Display Name: Internal
    - Category Code: SVC_INTERNAL
  - 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:**
- 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.
- 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
28 Integrate Oracle Internet of Things Service Monitoring for Connected Assets

Overview of Oracle Internet of Things Service Monitoring for Connected Assets

Oracle B2B Service and Oracle Internet of Things Service Monitoring for Connected Assets integration is designed to support customers who want to take advantage of the latest capabilities of 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 B2B 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 B2B Service and Internet of Things Service Monitoring for Connected Assets, if the instances use self-signed certificates.


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 B2B 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 B2B 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:
   - **Last Name**: Enter a last name for the user.
   - **Email**: Enter a valid email ID for the user.
   - **Hire Date**: Select today's date.
   - **User Name**: Enter a user name for the user.
   - **Person Type**: Select **Employee** from the drop-down list.
   - **Legal Employer**: Select the legal employer from the list.
   - **Business Unit**: Select a valid business unit.
   - **Send user name and password**: Select 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 provide the following roles to the integration user.

   - **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.
   - **Customer Service Representative**
   - **Resource**
Import the Integration Package

You can set up the Integration Cloud integration package after you set up B2B 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) and search and download the B2B 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:

- 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.


Activate the Connections

After you download the package and import the SSL certificates, connect to B2B 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 B2B Service Instance

Here's how you configure the connections to your B2B 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 B2B Service is listed on the connections page.
4. Click Oracle B2B 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 B2B Service instance.
Integrate Oracle Internet of Things Service Monitoring for Connected Assets

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
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 B2B 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 B2B 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 B2B 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.

Related Topics

Import Internet of Things Connected Assets

You can import Internet of Things connected assets from an external data source into B2B Service using the Import and Export Management feature. You can use the information in the Related Topic to import the connected assets.

Related Topics
Implement Digital Customer Service

Overview of Digital Customer Service

Oracle Digital Customer Service is an offering within Oracle B2B 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 B2B Service, you must configure some profile options. For more information, see "Configure Chat Inlay" in *Oracle CX 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 B2B 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.

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 B2B Service instance. Here's a look at the 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 B2B 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 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. An application can have multiple root pages.
• **Service APIs**: The REST APIs that your Digital Customer Service application interacts with.


• **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, see the following topic, Digital Customer Service Roles.

**Related Topics**
30 Integrate with Intelligent Advisor

Oracle Intelligent Advisor

Intelligent Advisor is a suite of tools used to build smart interactive interviews that support your organization business policies. For example, you might use Intelligent Advisor to determine whether a contract or service request qualifies for a discount and the amount of that discount. In this case, you might have rules around how long the contact has been a customer or previous product preferences. There can also be rules that cover warranties. All these rules can be built into the interview by your modelers.

Intelligent Advisor provides a central hub from which all the connections and interview projects are managed. There's desktop modeling software for building interviews called Oracle Policy Modeling. The Intelligent Advisor Hub connects Policy Modeling to CX Sales and B2B Service.

This shows how Policy Modeling, Intelligent Advisor Hub and CX Sales and B2B Service work together.

The first step to integrate Intelligent Advisor is to create the CX Sales and B2B Service web service connection in the Intelligent Advisor Hub that your team can use for new or existing interviews.

Once the connection to the web service is established, the modelers must go to Intelligent Advisor Hub and download Policy Modeling. The next step is to connect the Policy Modeling project to Intelligent Advisor Hub which provides access to the CX Sales and B2B Service data model. Modelers can then map the data in the policy model to the appropriate tables and fields in CX Sales and B2B Service.

Here are the four main steps to integrate CX Sales and B2B Service with Intelligent Advisor:

- Create a CX Sales and B2B Service connection in the Intelligent Advisor Hub.
- Download and install Policy Modeling.
- Connect the Policy Modeling project to Intelligent Advisor Hub.
- Map data from CX Sales and B2B Service to Policy Modeling.
Related Topics

Create a CX Sales and B2B Service Connection in Intelligent Advisor

Connecting CX Sales and B2B Service to Intelligent Advisor enables the two applications to work together and share information.

Intelligent Advisor Connections

You need to connect Intelligent Advisor to CX Sales and B2B Service in the Intelligent Advisor Hub to get started with your interview projects. Your install administrator provides the Intelligent Advisor Hub URL which is where you connect your web service. They should have set up access for the Sales Administrator, or a similar role that administers Intelligent Advisor for your organization. The URL for Intelligent Advisor Hub is in this general format: \https://<server and port>/<deploy-name>/opa-hub\/. Once you sign in, you create a connection to your CX Sales and B2B web services to get access to data for creating or editing interviews.

Related Topics

Download and Install Policy Modeling

After creating a connection from Intelligent Advisor, the next step is to download and install Policy Modeling.

Policy Modeling is a desktop tool modelers use to create and edit interviews, and to map data from CX Sales and B2B Service to Intelligent Advisor.

Policy Modeling can be downloaded from Intelligent Advisor Hub.

Related Topics

Connect Intelligent Advisor projects to the Intelligent Advisor Hub

In order for Intelligent Advisor to load and save data to CX Sales and B2B Service, your Intelligent Advisor project must be connected to Intelligent Advisor Hub with a connection. In other words, Intelligent Advisor receives data model information from the Intelligent Advisor Hub which in turn receives the data model information from CX Sales and B2B Service.
Connect the Intelligent Advisor Project to the Intelligent Advisor Hub

To connect your Intelligent Advisor project to CX Sales and B2B Service via the Intelligent Advisor Hub:

1. In Intelligent Advisor, connect the project to Intelligent Advisor Hub.
2. Choose the CX Sales and B2B Service connection you created previously.

Related Topics

Map Data from CX Sales and B2B Service to Policy Modeling

Data mapping lets you predefine data in a Intelligent Advisor interview from Oracle CX Sales and B2B Service, and to save outcomes from the interview back to CX Sales and B2B Service. To do this, data in Intelligent Advisor needs to be mapped to corresponding objects and fields in CX Sales and B2B Service. The input mappings are used to load values, and output mappings are used for updating and saving values.

After you have created your Intelligent Advisor interview, you need to:

- Deploy and activate the project for use by CX Sales and B2B Service. Take note of the URL of your deployed interview, as you need this to link to the interview from CX Sales and B2B Service.
- Link to the Intelligent Advisor interview from within CX Sales and B2B Service (from a sub-tab button, action menu item, or knowledge article).

Related Topics