

Oracle® Cloud

Using the Oracle ERP Cloud Adapter

Release 16.4

E66641-02

October 2016

Oracle Cloud Using the Oracle ERP Cloud Adapter, Release 16.4

E66641-02

Copyright © 2015, 2016, Oracle and/or its affiliates. All rights reserved.

Primary Author: Mark Kennedy

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface	v
Audience	v
Related Resources	v
Conventions	v
 1 Getting Started with the Oracle ERP Cloud Adapter	
Oracle ERP Cloud Capabilities	1-1
Supported Business Event-Enabled Objects	1-2
What Application Version Does the Oracle ERP Cloud Adapter Support	1-2
About Oracle Integration Cloud Service	1-3
About Oracle Integration Cloud Service Connections	1-3
About Oracle Integration Cloud Service Integrations	1-3
Typical Workflow for Creating and Including an Adapter Connection in an Integration	1-4
 2 Creating an Oracle ERP Cloud Adapter Connection	
Prerequisites for Creating a Connection	2-1
Obtaining the Oracle ERP Cloud Service Catalog Service WSDL or Event Catalog URL	2-2
Enabling Oracle ERP Cloud Events in Integrations	2-4
Uploading an SSL Certificate	2-5
Creating a Connection	2-6
Adding a Contact Email	2-7
Configuring Connection Properties	2-7
Configuring Connection Security	2-8
Testing the Connection	2-8
Editing a Connection	2-8
Cloning a Connection	2-9
Deleting a Connection	2-9
Refreshing Integration Metadata	2-10
 3 Creating an Integration	

4	Adding the Oracle ERP Cloud Adapter Connection to an Integration	
	Configuring Basic Information Properties	4-1
	What You Can Do from the Basic Info Page.....	4-1
	What You See on the Basic Info Page	4-2
	Configuring Oracle ERP Cloud Trigger Request Properties	4-2
	What You Can Do from the Oracle ERP Cloud Trigger Request Page	4-2
	What You See on the Oracle ERP Cloud Trigger Request Page	4-3
	Configuring Oracle ERP Cloud Trigger Response Properties	4-3
	What You Can Do from the Oracle ERP Cloud Trigger Response Page.....	4-4
	What You See on the Oracle ERP Cloud Trigger Response Page	4-4
	Configuring Oracle ERP Cloud Invoke Operation Properties	4-6
	What You Can Do from the Oracle ERP Cloud Invoke Operations Page.....	4-7
	What You See on the Oracle ERP Cloud Invoke Operations Page	4-7
	Reviewing Configuration Values on the Summary Page	4-8
	What You Can Do from the Summary Page	4-8
	What You See on the Summary Page	4-8
5	Creating Mappings and Lookups in Integrations	
6	Administering Integrations	

Preface

Using the Oracle ERP Cloud Adapter describes how to configure the Oracle ERP Cloud Adapter as a connection in an integration in Oracle Integration Cloud Service.

Topics:

- [Audience](#)
- [Related Resources](#)
- [Conventions](#)

Audience

Using the Oracle ERP Cloud Adapter is intended for developers who want to use the Oracle ERP Cloud Adapter in integrations in Oracle Integration Cloud Service.

Related Resources

For more information, see these Oracle resources:

- Oracle Cloud
<http://cloud.oracle.com>
- *Using Oracle Integration Cloud Service*
- *Using the Oracle Mapper*
- *Getting Started with Oracle Cloud*
- *Managing and Monitoring Oracle Cloud*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Convention	Meaning
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Getting Started with the Oracle ERP Cloud Adapter

Review the following conceptual topics to learn about the Oracle ERP Cloud Adapter and how to use it as a connection in integrations in Oracle Integration Cloud Service. A typical workflow of adapter and integration tasks is also provided.

Topics

- [Oracle ERP Cloud Capabilities](#)
- [What Application Version Does the Oracle ERP Cloud Adapter Support](#)
- [About Oracle Integration Cloud Service](#)
- [About Oracle Integration Cloud Service Connections](#)
- [About Oracle Integration Cloud Service Integrations](#)
- [Typical Workflow for Creating and Including an Adapter Connection in an Integration](#)

Oracle ERP Cloud Capabilities

The Oracle ERP Cloud Adapter enables you to create an integration with Oracle Enterprise Resource Planning (ERP) applications.

Oracle ERP Cloud enables you to streamline your enterprise business processes. Oracle ERP Cloud combines the power of a global business software suite with transactional and reporting capabilities that address financial, procurement, and project requirements across a range of business flows and countries. The complete and integrated suite transforms your organization through the latest social, mobile, and analytic technologies to optimize collaboration, process efficiency, and compliance while increasing insight into the business.

The Oracle ERP Cloud Adapter enables you to easily integrate on-premises or SaaS applications with Oracle ERP Cloud without having to know about the specific details involved in the integration. The Oracle ERP Cloud Adapter provides the following benefits:

- Integrates easily with the Oracle ERP Cloud application's WSDL file to produce a simplified, integration-centric WSDL.
- Generates automatic mapping to the exposed business object or event subscription that you select during adapter configuration:
 - Business object: Represents a self-contained business document that can be acted upon by the integration. An integration can send requests to create a new record for that business object. They can send a request either to update or

delete an existing record for a business object. Integrations can also send requests to retrieve information about one or more records representing that business object.

- Event subscription: Represents an event document to which you subscribe. The event subscription is raised by the Oracle ERP Cloud application. The product inventory module (PIM) exposes public APIs and events in release 11 for Oracle ERP Cloud. For information about supported business events, see [Supported Business Event-Enabled Objects](#).
- Automatically handles security policy details required to connect to the Oracle ERP Cloud application.
- Provides standard error handling capabilities.
- Enables you to map business objects that have polymorphic data structures.

Supported Business Event-Enabled Objects

The following business event-enabled objects to which you can subscribe during adapter configuration in the Adapter Endpoint Configuration Wizard are supported.

Supported Outbound Event-Enabled Objects and Supported Operations	Supported Inbound Event-Enabled Objects
Object: Accounts Operations: create, update, and delete	All top level objects.
Object: Contacts Operations: create, update, and delete operations	
Object: Partner Operations: create, update, and delete operations Note: Supported in Release 11 through a backport.	
Object: Deal Registration Operations: create, update, and delete operations Note: Supported in Release 11 through a backport.	
Object: Activity Operations: create, update, and delete operations Note: Supported in Release 11 through a backport.	

What Application Version Does the Oracle ERP Cloud Adapter Support

The Oracle ERP Cloud Adapter is compatible with Oracle ERP Cloud Application release 9.2 or higher.

About Oracle Integration Cloud Service

Oracle Integration Cloud Service is a complete, secure, but lightweight integration solution that enables you to connect your applications in the cloud. It simplifies connectivity between your applications and connects both your applications that live in the cloud and your applications that still live on premises. Oracle Integration Cloud Service provides secure, enterprise-grade connectivity regardless of the applications you are connecting or where they reside.

Oracle Integration Cloud Service provides native connectivity to Oracle Software as a Service (SaaS) applications, such as Oracle Sales Cloud, Oracle RightNow Cloud, and so on. Oracle Integration Cloud Service *adapters* simplify connectivity by handling the underlying complexities of connecting to applications using industry-wide best practices. You only need to create a *connection* that provides minimal connectivity information for each system. Oracle Integration Cloud Service *lookups* map the different codes or terms used by the applications you are integrating to describe similar items (such as country or gender codes). Finally, the visual data mapper enables you to quickly create direct mappings between the trigger and invoke data structures. From the mapper, you can also access lookup tables and use standard XPath functions to map data between your applications.

Once you integrate your applications and activate the integrations to the runtime environment, the dashboard displays information about the running integrations so you can monitor the status and processing statistics for each integration. The dashboard measures and tracks the performance of your transactions by capturing and reporting key information, such as throughput, the number of messages processed successfully, and the number of messages that failed processing. You can also manage business identifiers that track fields in messages and manage errors by integrations, connections, or specific integration instances.

About Oracle Integration Cloud Service Connections

Connections define information about the instances of each configuration you are integrating. Oracle Integration Cloud Service includes a set of predefined *adapters*, which are the types of applications on which you can base your connections, such as Oracle Sales Cloud, Oracle Eloqua Cloud, Oracle RightNow Cloud, and others. A connection is based on an adapter. A connection includes the additional information required by the adapter to communicate with a specific instance of an application (this can be referred to as metadata or as connection details). For example, to create a connection to a specific RightNow Cloud application instance, you must select the Oracle RightNow adapter and then specify the WSDL URL, security policy, and security credentials to connect to it.



[Video](#)

About Oracle Integration Cloud Service Integrations

Integrations are the main ingredient of Oracle Integration Cloud Service. An integration includes at the least a trigger (source) connection (for requests sent to Oracle Integration Cloud Service) and invoke (target) connection (for requests sent from Oracle Integration Cloud Service to the target) and the field mapping between those two connections.

When you create your integrations, you build on the [connections](#) you already created by defining how to process the data for the trigger (source) and invoke (target) connections. This can include defining the type of operations to perform on the data, the business objects and fields against which to perform those operations, required

schemas, and so on. To make this easier, the most complex configuration tasks are handled by Oracle Integration Cloud Service. Once your trigger (source) and invoke (target) connections are configured, the mappers between the two are enabled so you can define how the information is transferred between the trigger (source) and invoke (target) data structures for both the request and response messages.



Typical Workflow for Creating and Including an Adapter Connection in an Integration

You follow a very simple workflow to create a connection with an adapter and include the connection in an integration in Integration Cloud Service.

Step	Description	More Information
1	Create the adapter connections for the applications you want to integrate. The connections can be reused in multiple integrations and are typically created by the administrator.	Creating an Oracle ERP Cloud Adapter Connection
2	Create the integration. When you do this, you add trigger and invoke connections to the integration. For a trigger, you select to include either a business object or event in your integration.	Creating an Integration and Adding the Oracle ERP Cloud Adapter Connection to an Integration
3	Map data between the trigger connection data structure and the invoke connection data structure.	Mapping Integration Cloud Service Data of Using Oracle Integration Cloud Service
4	(Optional) Create lookups that map the different values used by those applications to identify the same type of object (such as gender codes or country codes).	Creating Lookups of Using Oracle Integration Cloud Service
5	Activate the integration.	Managing Integrations of Using Oracle Integration Cloud Service
6	Monitor the integration on the dashboard.	Monitoring Integration Cloud Services of Using Oracle Integration Cloud Service
7	Track payload fields in messages during runtime.	Assigning Business Identifiers for Tracking Fields in Messages and Managing Business Identifiers for Tracking Fields in Messages of Using Oracle Integration Cloud Service
8	Manage errors at the integration level, connection level, or specific integration instance level.	Managing Errors of Using Oracle Integration Cloud Service

Creating an Oracle ERP Cloud Adapter Connection

A connection is based on an adapter. You define connections to the specific cloud applications that you want to integrate. The following topics describe how to define connections.

Topics

- [Prerequisites for Creating a Connection](#)
- [Uploading an SSL Certificate](#)
- [Creating a Connection](#)
- [Editing a Connection](#)
- [Cloning a Connection](#)
- [Deleting a Connection](#)
- [Refreshing Integration Metadata](#)

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the Oracle ERP Cloud Adapter:

- Subscribe to Oracle ERP Cloud. This action enables you to create an Oracle ERP Cloud user account with the correct privileges. You specify this user account when creating an Oracle ERP Cloud Adapter connection on the Connections page. For information, see [Configuring Connection Security](#).
For information about subscribing, see [Oracle ERP Cloud](#).
- Obtain the necessary Oracle ERP Cloud service catalog service WSDL URL or event catalog URL. For information, see [Obtaining the Oracle ERP Cloud Service Catalog Service WSDL or Event Catalog URL](#).
- During bidirectional account and contact synchronization, echoes are generated. Oracle Integration Cloud Service-based integrations use echo suppression to prevent unwanted update or create events (the echoes) from returning to the source application. .
- To use Oracle ERP Cloud events in an integration, you require a CSF key. To obtain the key, either file a service request with Oracle Support Services or manually add the CSF key from the Oracle SOA Composer instance located in the Oracle Fusion Applications Supply Chain Management (SCM) domain. For more information, see [Enabling Oracle ERP Cloud Events in Integrations](#).

Obtaining the Oracle ERP Cloud Service Catalog Service WSDL or Event Catalog URL

You specify a mandatory Oracle ERP Cloud service catalog service WSDL (for accessing business objects) and optionally an event catalog URL (for accessing event subscriptions). The service catalog service WSDL is required to configure the adapter for both inbound and outbound endpoints using either business objects or business services. The event catalog URL is required for configuring the inbound adapter for event subscriptions.

Obtaining the Service Cloud Service WSDL

WSDL Requirements	Where Do You Get the WSDL
<p>The URL must be that of a service catalog service WSDL. The service catalog service is a Fusion Application service that returns a list of external services available for integration. It allows clients to retrieve information about all public Fusion Application service endpoints available for that instance.</p> <p>The service catalog service enables clients to retrieve information about all public Oracle Fusion Application service endpoints available for that instance. The information it returns is specific to the particular cloud instance and also reflects the new services that may have been introduced in patches applied to the instance. This service is used to programmatically discover the SOAP services available on the cloud instance and retrieve the necessary metadata to invoke the SOAP services to manage business objects.</p>	<p>The developer creating an Oracle ERP Cloud connection must work with the Oracle ERP Cloud service administrator to get the concrete WSDL URL for the service catalog service provisioned for the specific SaaS application.</p>

This section describes how to derive the external virtual host and port for a tokenized service WSDL. The topology information in the Topology Registration setup task contains the external virtual host and port for the domains and applications. The following instructions describe the steps for deriving the values using the service catalog service WSDL URL as an example: `https://atf_server:port/fndAppCoreServices/ServiceCatalogService`.

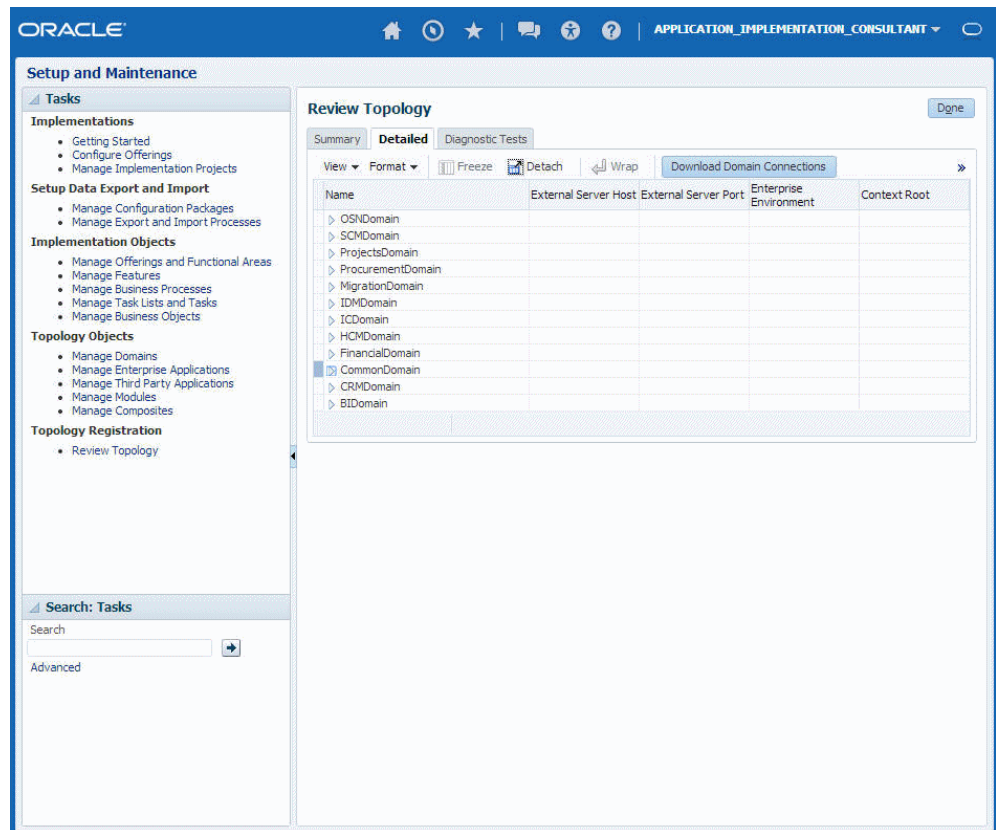
To access the Review Topology page, the `ASM_REVIEW_TOPOLOGY_HIERARCHY_PRIV` entitlement must be granted to the user's job role. The entitlement is granted to the `ASM_APPLICATION_DEPLOYER_DUTY` duty role, which is inherited by the duty roles `ASM_APPLICATION_DEVELOPER_DUTY` and `ASM_APPLICATION_ADMIN_DUTY`.

If the menu items and tasks described in the following procedure are not available in your cloud instance, your user account is missing the required role. Contact your cloud instance security administrator for assistance.

1. Log in to the cloud instance.

2. Click the **Navigator** icon in the global area in the top part of the window, then chose **Setup and Maintenance** under the **Tools** heading.
3. Select **Review Topology** under the **Topology Registration** section in the **Tasks** regional area on the left side of the window.
4. Click the **Detailed** tab in the middle of the window.

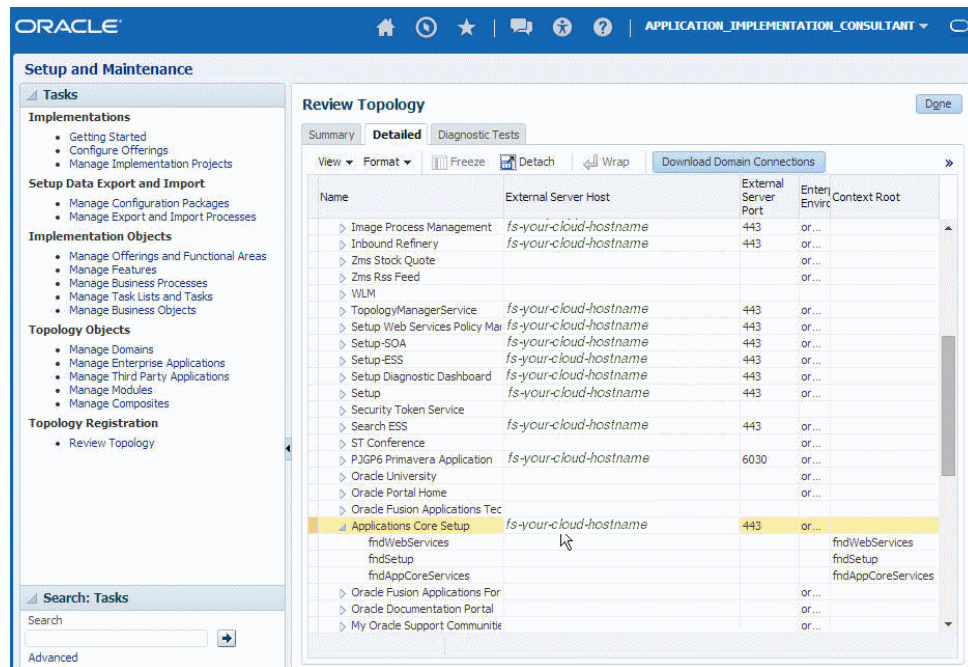
The tab shows the list of domains configured in the cloud instance.



5. Map the token name for the service path value to the domain name in the Topology Manager:

Token Name in Service Path	Domain Name
atf_server	CommonDomain
crm_server	CRMDomain
fin_server	FinancialDomain
hcm_server	HCMDomain
ic_server	ICDomain
prc_server	ProcurementDomain
prj_server	ProjectsDomain
scm_server	SCMDomain

- Expand the domain name and select any external virtual host and port for the J2EE applications that are deployed on the domain. In the sample window, the values for this particular instance are **fs-your-cloud-hostname** and **443**, respectively.



- Replace the `domainName_server:PortNumber` with the external virtual host and port identified in the previous step. For example:

```
https://fs-your-cloud-hostname:port/fndAppCoreServices/ServiceCatalogService?wsdl
```

Obtaining the Event Catalog URL

You must know the CRM URL format to access the CRM application user interface. Follow the URL format to determine the event catalog URL. For example, if the CRM URL format is:

```
https://fusxxxx-crm-ext.us.oracle.com:port/customer/faces/CrmFusionHome
```

Then the event catalog URL is:

```
https://fusxxxx-crm-ext.us.oracle.com:port/soa-infra
```

Enabling Oracle ERP Cloud Events in Integrations

You must perform the following tasks to enable the display of Oracle ERP Cloud events in integrations. The Product inventory module (PIM) exposes public APIs and events in release 11 of Oracle ERP Cloud.

To successfully subscribe to events, a CSF key is required. This key must be created on the Oracle ERP Cloud side. Create the CSF key in either of two ways:

- File a service request with Oracle Support Services to create the CSF key in the Oracle Fusion Applications Supply Chain Management (SCM) domain. This action enables product inventory module (PIM)-published events to be visible for

selection in Oracle Integration Cloud Service. In Oracle ERP Cloud 11, PIM events are the only events supported. Your Oracle Integration Cloud Service identity domain *must* be used as the name of the CSF key.

- If you are using release 12, you can manually create the CSF key in Oracle SOA Composer. Oracle SOA Composer is accessible from the Supply Chain Management Cluster.

1. Manually add a special permission to the SOA server domain's `system-jazn-data.xml` file:

```
<grant>
  <grantee>
    <codesource>
      <url>file:${domain.home}/servers/${weblogic.Name}/tmp/_WL_user/
soa-infra/-</url>
    </codesource>
  </grantee>
  <permissions>
    <permission>

<classoracle.security.jps.service.credstore.CredentialAccessPermission</
class>
      <name>context=SYSTEM,mapName=oracle.wsm.security,keyName=*</name>
      <actions>*</actions>
    </permission>
  </permissions>
</grant>
```

Without these permissions, you receive the following error and must file a service request with Oracle Support Services to create the CSF key.

```
"access denied
(oracle.security.jps.service.credstore.CredentialAccessPermission
context=SYSTEM,mapName=oracle.wsm.security,keyName=* read)"
```

2. Restart the server.
3. Log in to Oracle SOA Composer with a user that has the SOA administrator role. Obtain the hostname and port from your administrator.

```
http://CRM_domain_URL:port/soa/composer
```

4. Click **Manage Security**.
5. Add the `csf-key`.
6. Provide the username and password for Oracle ERP Cloud to use to invoke Oracle Integration Cloud Service subscriptions.

Uploading an SSL Certificate

Certificates are used to validate outbound SSL connections. If you make an SSL connection in which the root certificate does not exist in Oracle Integration Cloud Service, an exception is thrown. In that case, you must upload the appropriate certificate. A certificate enables Oracle Integration Cloud Service to connect with external services. If the external endpoint requires a specific certificate, request the certificate and then upload it into Oracle Integration Cloud Service.

To upload a certificate:

1. From the Oracle Integration Cloud Service home page, click the **Administration** tab in the upper right corner.

All certificates currently uploaded to the trust store are displayed in the Certificates dialog. The **Filter By > Type** list displays the following details:

- **Preinstalled:** Displays the certificates automatically installed in Oracle Integration Cloud Service. These certificates cannot be deleted.
- **Uploaded:** Displays the certificates uploaded by individual users. These certificates can be deleted and updated.

You can also search for certificates in the **Search** field. The search results are limited to a maximum of ten records sorted by name for performance and usability reasons. To ensure that your search results are more granular, enter as much of the certificate name as possible.

2. Click **Upload** at the top of the page.
3. In the Upload Certificate dialog box, enter a unique identifier for the certificate.
This is a name you can use to identify the certificate.
4. Click **Browse** to locate the certificate file (.cer).
5. Click **Upload**.
6. Click the certificate name to view details such as the subject of the certificate, the issuer of the certificate, the date the certificate was issued, and the date the certificate expires.

Creating a Connection

The first step in creating an integration is to create the connections to the applications with which you want to share data.

1. In the Integration Cloud Service toolbar, click **Designer**.
2. On the Designer Portal, click **Connections**.
3. Click **New Connection**.

The Create Connection — Select Adapter dialog is displayed.

4. Select an adapter from the dialog. You can also search for the type of adapter to use by entering a partial or full name in the Search field, and clicking **Search**.

The New Connection — Information dialog is displayed.

5. Enter the information to describe the connection.
 - Enter a meaningful name to help others find your connection when they begin to create their own integrations. The name you enter is automatically added in capital letters to the **Identifier** field. If you modify the identifier name, do not include a blank space (for example, OSC Inbound).
 - Select the role (direction) in which to use this connection (trigger, invoke, or both). Only the roles supported by this adapter are displayed for selection. When you select a role, only the connection properties and security policies appropriate to that role are displayed on the Connections page. If you select an

adapter that supports both invoke and trigger, but select only one of those roles, then try to drag the adapter into the section you did not select, you receive an error (for example, configure an Oracle RightNow Cloud Adapter as only an invoke, but drag the adapter to the trigger section).

- Enter an optional description of the connection.

6. Click **Create**.

Your connection is created and you are now ready to configure connection details, such as email contact, connection properties, security policies, and connection login credentials.

Adding a Contact Email

From the Connection Administrator section of the connection, you can add a contact email address for notifications.

1. In the **Email Address** field, enter an email address to receive email notifications when problems occur.
2. In the upper right corner, click **Save**.

Configuring Connection Properties

Enter connection information so your application can process requests.

1. Click **Configure Connectivity**.

The Connection Properties dialog is displayed.

2. In the **WSDL URL** field, specify the URL to use in this integration.
 - **ERP Services Catalog WSDL URL**
 - **ERP Events Catalog URL (optional)**

For information about obtaining the URL, see [Obtaining the Oracle ERP Cloud Service Catalog Service WSDL or Event Catalog URL](#).

3. Click **OK**.
4. Configure connection security.

Configuring Connection Security

Configure security for your Update Adapter Product Name connection by selecting the security policy and security token.

1. Click **Configure Credentials**.
2. Enter your login credentials:
 - a. Select the security policy. Only the Username Password Token policy is supported. It cannot be deselected.
 - b. Enter a username and password to connect to the database.
 - c. Reenter the password a second time.
3. Click **OK**.

Testing the Connection

Test your connection to ensure that it is successfully configured.

1. In the upper right corner of the page, click **Test**.

If successful, the following message is displayed and the progress indicator shows 100%.

The connection test was successful!
2. If your connection was unsuccessful, an error message is displayed with details. Verify that the configuration details you entered are correct.
3. When complete, click **Save**.

Editing a Connection

You can edit connection settings after creating a new connection.

1. In the Oracle Integration Cloud Service toolbar, click **Designer**.
2. On the Designer Portal, click **Connections**.
3. On the Connections page, search for the connection name.
4. Select **Edit** from the connection **Actions** menu or click the connection name.



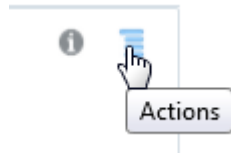
The Connection page is displayed.

5. To edit the notification email contact, change the email address in the **Email Address** field.
6. To edit the connection properties, click **Configure Connectivity**. Note that some connections do not include this button. If your connector does not include a **Configure Connectivity** button, then click the **Configure Credentials** button.

Cloning a Connection

You can clone a copy of an existing connection. It is a quick way to create a new connection.

1. In the Oracle Integration Cloud Service toolbar, click **Designer**.
2. On the Designer Portal, click **Connections**.
3. On the Connections page, search for the connection name.
4. Select **Clone** from the connection **Actions** menu.



The Clone Connection dialog is displayed.

5. Enter the connection information.
6. Click **Clone**.
7. Click **Edit** to configure the credentials of your cloned connection. Cloning a connection does not copy the credentials.

See [Editing a Connection](#) for instructions.

Deleting a Connection

You can delete a connection from the connection menu.

1. In the Oracle Integration Cloud Service toolbar, click **Designer**.
2. On the Designer Portal, click **Connections**.
3. On the Connections page, search for the connection name.
4. Click **Delete** from the connection **Actions** menu.



The Delete Connection dialog is displayed if the connection is not used in an integration.

5. Click **Yes** to confirm deletion.

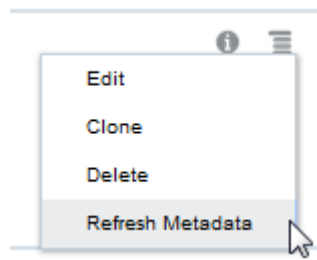
Refreshing Integration Metadata

You can manually refresh the currently-cached metadata available to adapters that have implemented metadata caching. Metadata changes typically relate to customizations of integrations, such as adding custom objects and attributes to integrations. There may also be cases in which integrations have been patched, which results in additional custom objects and attributes being added. This option is similar to clearing the cache in your browser. Without a manual refresh, a staleness check is only performed when you drag a connection into an integration. This is typically sufficient, but in some cases you may know that a refresh is required. For these cases, the **Refresh Metadata** menu option is provided.

To refresh integration metadata:

Note: The **Refresh Metadata** menu option is only available with adapters that have implemented metadata caching.

1. In the Integration Cloud Service toolbar, click **Designer**.
2. In the Designer Portal, click **Connections**.
3. Locate the connection to refresh.
4. From the menu at the right, select **Refresh Metadata**.



A message is displayed indicating that the refresh was successful.

Metadata refresh for connection "`connection_type`" has been initiated successfully.

Creating an Integration

Integrations use the adapter connections you created to your applications, and define how information is shared between those applications. You can create, import, modify, or delete integrations; create integrations to publish or subscribe to messages; add and remove request and response enrichment triggers; and create routing paths for different invoke endpoints in integrations. Click the following topics for more information.

Topic

- [Creating Integrations \(in *Using Oracle Integration Cloud Service*\)](#)

Adding the Oracle ERP Cloud Adapter Connection to an Integration

When you drag the Oracle ERP Cloud Adapter into the trigger and invoke areas of an integration, the Cloud Endpoint Configuration Wizard is invoked. This wizard guides you through configuration of the Oracle ERP Cloud Adapter endpoint properties.

The following sections describe the wizard pages that guide you through configuration of the Oracle ERP Cloud Adapter as a trigger or invoke in an integration.

Topics

- [Configuring Basic Information Properties](#)
- [Configuring Oracle ERP Cloud Trigger Request Properties](#)
- [Configuring Oracle ERP Cloud Trigger Response Properties](#)
- [Configuring Oracle ERP Cloud Invoke Operation Properties](#)
- [Reviewing Configuration Values on the Summary Page](#)

For more information about the Oracle ERP Cloud Adapter, see [Oracle ERP Cloud Capabilities](#).

Configuring Basic Information Properties

You can enter a name and description on the Basic Info page of each adapter in your integration.

Topics

- [What You Can Do from the Basic Info Page](#)
- [What You See on the Basic Info Page](#)

What You Can Do from the Basic Info Page

You can specify the following values on the Basic Info page. The Basic Info page is the initial wizard page that is displayed whenever you drag an adapter to the section of the integration canvas supported by your adapter.

- Specify a meaningful name.
- Specify a description of the responsibilities.

What You See on the Basic Info Page

The following table describes the key information on the Basic Info page.

Element	Description
What do you want to call your endpoint?	<p>Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and dashes in the name. You cannot include the following:</p> <ul style="list-style-type: none">• Blank spaces (for example, My Inbound Connection)• Special characters (for example, #;83& or righ(t)now4)• Multibyte characters
What does this endpoint do?	<p>Enter an optional description of the connection's responsibilities. For example: This connection receives an inbound request to synchronize account information with the cloud application.</p>

Configuring Oracle ERP Cloud Trigger Request Properties

Enter the Oracle ERP Cloud connection trigger request values for your integration. The values you specify start the integration.

Topics

- [What You Can Do from the Oracle ERP Cloud Trigger Request Page](#)
- [What You See on the Oracle ERP Cloud Trigger Request Page](#)

What You Can Do from the Oracle ERP Cloud Trigger Request Page

You can select the following trigger request values for the Oracle ERP Cloud application.

Select the specific type to receive as a request from Oracle ERP Cloud. Your ability to select either a business object or event subscription is based on the content of the WSDL file (for business objects) or event catalog URL (for event subscriptions) you specified during Oracle ERP Cloud Adapter configuration.

- Select to receive a business object as a request from the Oracle ERP Cloud application. This selection invokes the integration.
- Select to receive an event subscription raised by the Oracle ERP Cloud application as a request from Oracle ERP Cloud. This selection invokes the integration.

Note: If the options for selecting business objects and events are missing, that indicates that the event catalog URL was not supplied on the Connection page.

What You See on the Oracle ERP Cloud Trigger Request Page

The following table describes the key information on the Oracle ERP Cloud trigger Request page.

Element	Description
Configure a Request	Select the request type appropriate to your integration. The fields that are displayed below are based on the request type that you select. <ul style="list-style-type: none"> • With Business Objects: Select to display a list of business objects. • With Business Events: Select to display a list of business events.
Select a Business Object (is displayed if With Business Objects is selected)	Select the business object from the Oracle ERP Cloud application to receive as a request that starts the integration.
Business Event For Subscription (is displayed if With Business Events is selected)	Select the event subscription from the Oracle ERP Cloud application. This event is received as a request that starts the integration. Only events that can be subscribed to are displayed.
Filter Expr for <i>Business_Event_Name</i> (is displayed if With Business Events is selected)	Enter an event condition filter expression. A filter expression specifies that the contents (payload or headers) of a message be analyzed before any event is sent. For example, you can apply a filter expression that specifies that an event be sent only if the message includes a customer ID. When the expression logic is satisfied, the event is accepted for delivery to the integration.
Filter by object name or Filter By Event Name	Type the initial letters of the name to filter the display of business objects or event subscriptions.

Configuring Oracle ERP Cloud Trigger Response Properties

Enter the Oracle ERP Cloud trigger response values for your integration.

Topics

- [What You Can Do from the Oracle ERP Cloud Trigger Response Page](#)
- [What You See on the Oracle ERP Cloud Trigger Response Page](#)

What You Can Do from the Oracle ERP Cloud Trigger Response Page

You can configure the operation and business object that comprise the response type for the Oracle ERP Cloud application.

- **Immediate (synchronous) response:** A response business object is immediately returned as output. You select **Immediate** as the response type on the Response page and select the business object as part of the response to the client.
- **Delayed (asynchronous) response:** A callback service to which to route the callback is exposed. You select **Delayed** as the response type on the Response page and select the operation and business object that comprise a successful callback response, a failed callback response, or both.
- **No response is required:** You select **None** on the Response page because a response is not required.

The Response page looks as follows:

What You See on the Oracle ERP Cloud Trigger Response Page

Select the business object for the integration to send as a response document to the Oracle ERP Cloud application. The following types of responses are available.

Select the type of response appropriate to your business requirements:

- **Immediate:** A synchronous response is required (See [Table 4-1](#) for instructions)
- **Delayed:** An asynchronous response is required (See [Table 4-2](#) for instructions)
- **None:** No response is required (See [Table 4-3](#) for instructions)

The following table describes the fields available if an immediate (synchronous) response is required.

Table 4-1 Response Type — Immediate (Synchronous) Response is Required

Element	Description
Response Type	Select Immediate for the Oracle ERP Cloud application to wait until a response is received from the integration. This is also known as the request and response message exchange pattern. This is the default selection.
Filter by object name	Enter the initial letters to filter the display of business objects.
Select a Business Object	Select the business object to receive from the Oracle ERP Cloud application as a response. A description of the selected business object is displayed below this list.
Name	Displays the name of the selected business object.
Description	Displays the description of the selected business object.

The following table describes the fields available if a delayed (asynchronous) callback response is required. You can configure a successful callback response, a failed callback response, or both.

Table 4-2 Response Type — Delayed (Asynchronous) Response is Required

Element	Description
Response Type	<p>Select Delayed to configure a successful callback response, a failed callback response, or both.</p> <p>This enables you to configure the operation and business objects that you want the Oracle ERP Cloud application to process as part of a successful callback response, failed callback response, or both.</p>

Table 4-2 (Cont.) Response Type — Delayed (Asynchronous) Response is Required

Element	Description
Successful Response/Failed Response	<p>Select the type of callback to configure. After configuring one type of callback (for example, successful), you can configure the other type (for example, failed).</p> <ul style="list-style-type: none"> • Successful Response: Select to configure the operation and business objects that you want the Oracle ERP Cloud application to process as part of a successful callback response sent by the integration. • Failed Response: Select to configure the operation and business objects that you want the Oracle ERP Cloud application to process as part of a failed callback response sent by the integration.
Select the operation to perform on the business object	Select the operation to perform on the business object.
Life Cycle	Displays the current state of the selected business document. Active indicates the business document is available for use. Deprecated indicates the business document is nearing the end of use and must be used with caution.
Name	Displays the name of the selected business object.
Description	Displays the description of the selected business object.

The following table describes the fields available if no response is required.

Table 4-3 Response Type — None

Element	Description
Response Type	Select None .
Select a Business Object	If you select None , this section is hidden.

Configuring Oracle ERP Cloud Invoke Operation Properties

Enter the Oracle ERP Cloud invoke operation values for your integration.

Topics

- [What You Can Do from the Oracle ERP Cloud Invoke Operations Page](#)

- [What You See on the Oracle ERP Cloud Invoicing Operations Page](#)

What You Can Do from the Oracle ERP Cloud Invoicing Operations Page

You can configure the following invoicing operation values for the Oracle ERP Cloud.

- Select the business object or service.
- Select the operation to perform on the selected business object or service.

What You See on the Oracle ERP Cloud Invoicing Operations Page

The following table describes the key information on the Oracle ERP Cloud invoicing Operations page.

Element	Description
Browse by	<p>Select to browse by business object or service. There is a one-to-one correspondence between the business object and service. The service acts on the business document.</p> <ul style="list-style-type: none"> • Business Objects: Select to browse a list of available business objects. • Services: Select to browse a list of available services.
Filter by object name (displayed if Business Objects is selected)	<p>Type the initial letters to filter the display of business objects or select a specific category:</p> <ul style="list-style-type: none"> • All • Active • Custom • Deprecated • Standard
Select a Business Object (displayed if Business Objects is selected)	Select the business object to use.
Filter by service (displayed if Services is selected)	Type the initial letters to filter the display of services.
Select a Service (displayed if Services is selected)	Select the service to use.
Select the operation to perform on the business object or service	Select the operation to perform on the selected business object or service.
Life Cycle	Displays the state of the selected business object or service. Deprecated indicates the business document is nearing the end of use and must be used with caution.
Name	Displays the name of the selected business object or service.

Element	Description
Description	Displays the description of the selected business object or service.

Reviewing Configuration Values on the Summary Page

You can review the specified adapter configuration values on the Summary page.

Topics

- [What You Can Do from the Summary Page](#)
- [What You See on the Summary Page](#)

What You Can Do from the Summary Page

You can review configuration details from the Summary page. The Summary page is the final wizard page for each adapter after you have completed your configuration.

- View the configuration details you defined for the adapter. For example, if you have defined an inbound trigger (source) adapter with a request business object and immediate response business object, specific details about this configuration are displayed on the Summary page.
- Click **Done** if you want to save your configuration details.
- Click a specific tab in the left panel or click **Back** to access a specific page to update your configuration definitions.
- Click **Cancel** to cancel your configuration details.

What You See on the Summary Page

The following table describes the key information on the Summary page.

Element	Description
Summary	<p>Displays a summary of the configuration values you defined on previous pages of the wizard.</p> <p>The information that is displayed can vary by adapter. For some adapters, the selected business objects and operation name are displayed. For adapters for which a generated XSD file is provided, click the XSD link to view a read-only version of the file.</p> <p>To return to a previous page to update any values, click the appropriate tab in the left panel or click Back.</p>

Creating Mappings and Lookups in Integrations

You must map data between trigger connections and invoke connections in integrations. You can also optionally create lookups in integrations.

Topics

- Mapping Integration Cloud Service Data (in *Using Oracle Integration Cloud Service*)
- Creating Lookups (in *Using Oracle Integration Cloud Service*)

Administering Integrations

Oracle Integration Cloud Service provides you with the information and tools required to activate, monitor, and manage your integrations in the runtime environment.

Topic

- Administering Integration Cloud Service (in *Using Oracle Integration Cloud Service*)

