Oracle® Fusion Middleware

Using Oracle HCM Cloud Adapter

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Contents

5 Configuring Oracle HCM Cloud Properties

6 Managing Applications

Preface

Using Oracle HCM Cloud Adapter describes how to use the Oracle HCM Cloud adapter in your SOA composite applications and Oracle Service Bus business services.

Topics:

- Audience
- Documentation Accessibility
- Related Resources
- Conventions

Audience

Using Oracle HCM Cloud Adapter is intended for users who want to create, deploy, test, and monitor applications that use the Oracle HCM Cloud adapter.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Resources

For more information, see these Oracle resources:

- *Developing SOA Applications with Oracle SOA Suite*
- *Administering Oracle SOA Suite and Oracle Business Process Management Suite*
- *Administering Oracle Service Bus*
- *Understanding Technology Adapters*

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.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Introduction to Oracle HCM Cloud Adapter

This section describes the Oracle HCM Cloud adapter.

Topics

- Oracle HCM Cloud
- Installing the Cloud Adapters
- Performing Postinstallation Configuration Tasks
- Specifying the Oracle HCM Cloud WSDL
- Obtaining the Authentication Credentials
- Unsupported Features
- Restrictions

Oracle HCM Cloud

The Oracle HCM Cloud connector enables you to create an integration with Oracle Human Capital Management Cloud applications. You select business objects that an integration receives from Oracle Human Capital Management Cloud as a request and as a response.

The Oracle HCM Cloud adapter enables customers to easily integrate their on-premises or SaaS applications with Oracle Sales Cloud without having to know about the specific details involved in the integration.

Integration with Oracle Fusion Applications may involve several design-time and runtime considerations that require users to manually build and manage additional logic into their integration for authentication, session management, fault handling, data transformation mappings, and so on. The Oracle HCM Cloud adapter reduces the cost of building and maintaining this complex logic with out-of-the-box features such as a graphical, point-and-click, wizard-based designer. The Oracle HCM Cloud connection:

- Interacts at runtime with the publicly-exposed Oracle HCM Cloud business objects to perform operations defined on them.

- Provides contextual information to the developer at design time about the business objects and services available for integration.

Installing the Cloud Adapters

See the README.txt available with the patch for instructions on installing the cloud adapters.

After you complete adapter installation, perform the tasks described in *Performing Postinstallation Configuration Tasks*.

> **Note:** For information about supported versions and platforms, see the release certification matrix at Supported System Configurations.

Performing Postinstallation Configuration Tasks

You must perform postinstallation configuration tasks after installing the cloud adapters.

For information about postinstallation configuration tasks, see the *Oracle Cloud Adapters Postinstallation Configuration Guide*.

Specifying the Oracle HCM Cloud WSDL

The following table describes the Oracle HCM Cloud WSDL requirements.

WSDL Requirements	Where Do You Get the WSDL
The URL must be that of a service catalog service WSDL. 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.	The developer creating an Oracle HCM Cloud connection must work with the Oracle HCM Cloud service administrator to get the concrete WSDL URL for the service catalog service provisioned for the specific SaaS application. The concrete WSDL URL must be supplied while creating the connection.

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: `http://atf_server:port/fndAppCoreServices/ServiceCatalogService`.

Prerequisites

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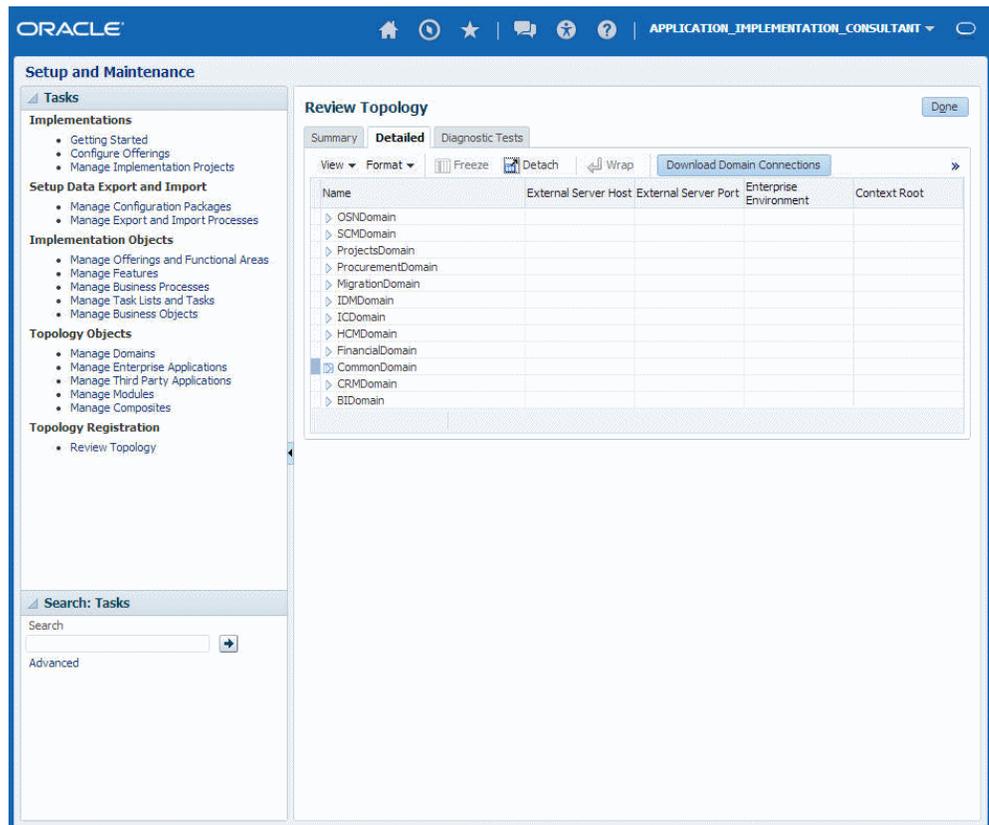
5. Map the token name for the service path value to the domain name in the Topology Manager:

Token Name in Service Path	Domain Name
atf_server	CommonDomain
crm_server	CRMDomain
fin_server	FinancialDomain
hcm_server	HCMDomain
ic_server	ICDomain

Token Name in Service Path	Domain Name
prc_server	ProcurementDomain
prj_server	ProjectsDomain
scm_server	SCMDomain

6. 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.
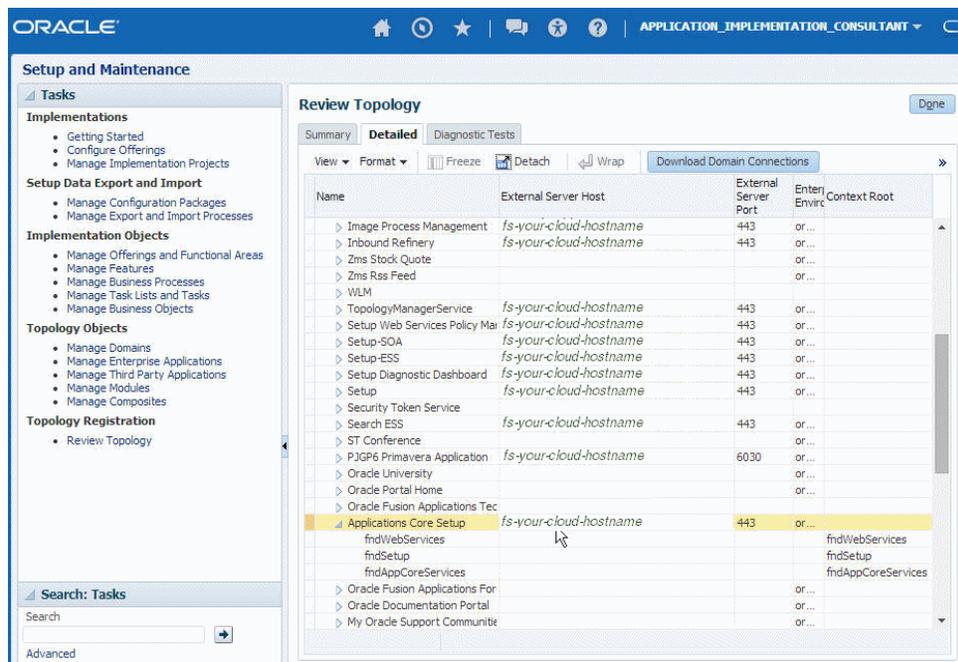
7. Replace the *domainName_server:PortNumber* with the external virtual host and port identified in the previous step. For example:

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

Obtaining the Authentication Credentials

Obtain the user name and password that are required for creating the Credential Store Framework (CSF) authentication key in Oracle JDeveloper and Oracle Enterprise Manager Fusion Middleware Control from your SOA domain administrator. These credentials are required for most cloud adapters. For the Oracle Eloqua Cloud adapter, the credentials require three properties (company, username, and password).

Unsupported Features

The adapter does not support the following features:

- Adapter runtime retry configuration properties such as jca.retry.count, jca.retry.backoff, jca.retry.interval, and jca.retry.maxInterval

- Message recovery in the Error Hospital in Oracle Enterprise Manager Fusion Middleware Control

- Rejected message handling

- The following message encryption and decryption features available when you right-click a cloud adapter in the **Exposed Service** swimlane or **External References** swimlane in Oracle JDeveloper:

  - **Protect Sensitive Data** > **Encrypt Request Data** for cloud adapters in the **Exposed Service** swimlane.

  - **Protect Sensitive Data** > **Decrypt Sensitive Data** for cloud adapters in the **External References** swimlane.

Restrictions

Note the following restrictions:

Not all Oracle Fusion Application services are available in SaaS mode because the Oracle Fusion Application topology splits visibility to web and service resources into two categories: internal and external. Therefore, some services are internal and cannot be used by the adapter for integration. Only external services are available for public consumption.

The adapter cannot be used for integrating the interfamily modules, because services defined on them are not external services.

2

Understanding Oracle HCM Cloud Adapter Features

The Oracle HCM Cloud adapter provides the following features.

Topics

Adapter Architecture

The adapter includes the following key features.

Service Catalog Service

The WSDL URL that you specify during adapter configuration 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. The service catalog service provides the following features:

- Provisioned on the cloud instance.

- Provides public external service information for the specific cloud instance. It reflects new services introduced in patches and customizations.

- Gets the endpoint and metadata for public external services on the cloud instance on which the service catalog service is provisioned. The information that it returns is specific to the particular cloud instance and reflects new services that may have been introduced in patches applied to the instance. Oracle Fusion Applications in the Oracle Applications cloud enable partners and customers to use this service 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.

Business Objects

The business object that the service implements is composed of a hierarchy of logical entities that contain a collection of attributes. As an example, the opportunity service is defined on the opportunity business object. The opportunity business object consists of many entities such as an opportunity contact and opportunity lead. The business object is the functional object on which the service operates. Examples include opportunity, sales account, sales lead, marketing campaign, and sales forecast.

Business Object Notation

The business objects are grouped into related objects that are in turn grouped into higher-level related objects. For example, the opportunity service business object contains the following value:

- CRM : Opportunity Management : Opportunity

The above value means the service operates on the opportunity object. The opportunity object is grouped into a related set of objects called opportunity management that in turn is grouped into a larger set of related objects called CRM (Customer Relationship Management). Other business objects included in the opportunity management grouping are sales method and sales revenue. Other logical business object groups in CRM are lead management and partner management.

Life Cycle of Business Object Services

The business object service goes through three life cycle phases:

- Active: This phase starts when the service is first delivered and lasts until it is deprecated.

- Deprecated: A service may be deprecated when it is superseded by a newer version of the service or there is a planned obsolescence in a future release. The deprecated status means that the service is still supported, but becomes obsolete in a later release.

  Deprecated services do not mean they are not supported. They continue to be supported until they become obsolete. Deprecated services must go through the deprecation cycle during which users are told that the service is going to be withdrawn at a future time. However, it is still a service that must be supported.

  If a selected business object or service has a life cycle value of deprecated, a warning message is displayed. If the business object or service captures information about a replacement business object or service, then it may also be displayed. This information comes from the annotation element in the service's WSDL.

  A portion of a service WSDL is shown below.

  ```
  <wsdl:documentation xmlns:oer="http://xmlns.oracle.com/oer">
  <name>Opportunity Service</name>
  <description>A service to create, update, get, find, or delete
  opportunities.
   WARNING: This service will be deprecated and replaced with a
  newer version in the upcoming release.</description>
  <oer:lifecycle>Active</oer:lifecycle>
  <oer:compatibility>Supported - Backward Compatibility Assured</
  oer:compatibility>
  . . .
  <oer:category name="lbo">
  <value>CRM-CRM : MOO-Opportunity Management : MOO_OPPORTUNITY-
  Opportunity</value>
  </oer:category>
  </wsdl:documentation>
  ```

  New service consumers should consume the newer active version of the service and existing customers should migrate to the newer active version of the service.

- Obsolete: The service is no longer shipped or supported.

Supportability

The public external SOAP services are supported throughout their life cycle until they are obsolete. Conversely, services that are considered private and not intended for partners and customers to consume are not supported.

Cloud Services

The cloud web services (for example, for Oracle Sales Cloud or Oracle HCM Cloud) provide access to an application programming interface (API) that companies can use to build programs to integrate with the cloud (for example, Oracle Sales Cloud or Oracle HCM Cloud). The API consists of a set of WSDL files that describes the interface to the cloud objects. This provides a programmatic interface for accessing cloud information (for example, for Oracle Sales Cloud or Oracle HCM Cloud). A customer application can use the WSDL files through standard web services development tools. The web services API allows companies to build programs to integrate with the cloud (for example, Oracle Sales Cloud or Oracle HCM Cloud).

Some common examples of client integrations include integrations of CRM and back-office applications. You can retrieve real-time sales and marketing information from the cloud (for example, Oracle Sales Cloud or Oracle HCM Cloud) and use it in financial and other back-office applications. For example, you can retrieve information about recently closed opportunities through the web services interface and insert this information into an order entry system that has a web services user interface. In addition, you can store information from back-office applications for instant access by users, which is visible in custom fields.

Security

Prior to accessing the fusion web services, user credentials must be supplied in compliance with the security policies attached to the cloud services (for example, Oracle Sales Cloud or Oracle HCM Cloud). Upon successful authentication, the user is logged in and can issue web service requests to access and retrieve data. All cloud web services are stateless (for example, Oracle Sales Cloud or Oracle HCM Cloud) such that each web service call is an atomic transaction and is not associated to a persistent session. Management of the stateless web service calls is handled by the underlying fusion framework and is abstracted from the end user.

Designing an Integration with the Adapter Configuration Wizard

This section describes the design time and runtime aspects of using the Oracle HCM Cloud adapter.

You use the Adapter Configuration Wizard to include the Oracle HCM Cloud adapter in a SOA composite application or an Oracle Service Bus business service. The wizard consists of configuration pages that create the artifacts required to communicate with the Oracle HCM Cloud application. You can configure the adapter in the inbound (source) direction or the outbound (target) direction.

- Inbound (source) direction:

  The Basic Info page prompts you to enter a meaningful name and optional description.

  The Connection page prompts you to specify the WSDL, security policy, and authentication key to use. The authentication key is created by clicking the **Add** icon to specify the key name, user name, and password. You must also specify these same values in Oracle Enterprise Manager Fusion Middleware Control. You can also test the connection to the Oracle HCM Cloud application on the Connection page. This enables you to confirm that the URL to the service catalog

service and credentials are correct. Status is displayed that indicates whether the connection is successful and whether the credentials are authenticated by the Oracle HCM Cloud application. Any errors that occurred during the attempt to connect are also displayed.

The Request page prompts you to select the business object to receive as a request from the Oracle HCM Cloud Application.

To get all available data objects in the Oracle Sales Cloud instance, the adapter first reads the schema document (.XSD) that is referenced in the service's WSDL. The adapter then parses this XSD to obtain the list of all schema imports and shows them as data objects.

For example, the adapter displays the opportunity business object and its useful metadata first by reading the opportunity service's WSDL and the referenced schema `OpportunityService.xsd` file. The XSD in turns imports another schema `Opportunity.xsd` in which the opportunity business object is defined. The metadata for the opportunity business object is defined in this schema.

A search facility is provided that enables you to filter the display of business objects for quick selection. When you enter a search string, the list renders only the matching business objects in the list browser instead of showing all objects.

The Response page prompts you to select the business object for the integration to send as a response document to the Oracle HCM Cloud application. To send no response, deselect the **Send** checkbox. You can also optionally select to send an immediate response back to the Oracle Sales Cloud application. An immediate response indicates a conversational response. For an immediate response, you can select any of the data objects as a response document. You also can select to send fault details with the immediate response.

The Summary page displays your selections.

- Outbound (source) direction:

  The Basic Info page prompts you to enter a meaningful name and optional description. This is the same page as is displayed for the inbound direction.

  The Operations page prompts you to select a business object or service and the operation to perform on your selection.

  A search facility based on service names is also provided. To quickly select a business service, you type a search string. The list renders only matching business services in the list browser instead of showing all services.

  The Summary page displays your selections for the outbound direction.

The following artifacts are created for each adapter instance in the Applications window in Oracle JDeveloper:

- WSDL file: Only the standard WSDL file type is supported.

- JCA file: Contains the internal implementation details used by the adapter during runtime. It contains the different interaction and connection properties used by the adapter.

When application configuration is complete, you can deploy the application from Oracle JDeveloper to the runtime environment.

> **Note:** The wizard does not support the creation of response message callbacks. As an alternative, you can design your BPEL process to include activities that support callbacks.

For information about the details to specify in the fields of the wizard pages, see Configuring Oracle HCM Cloud Connection Properties.

Monitoring Your Application During Runtime

This section describes the design time and runtime aspects of using the Oracle HCM Cloud adapter.

Runtime

You use the runtime part of the adapter for delivering the information generated during design time to the service endpoint. You can monitor your SOA composite application or Oracle Service Bus business service from Oracle Enterprise Manager Fusion Middleware Control. You can also test your Oracle Service Bus business service from Oracle Service Bus Console.

Understanding Oracle HCM Cloud Adapter Design Integration Patterns

Oracle HCM Cloud adapter supports the following design integration patterns in the Adapter Configuration Wizard.

Outbound Integration from Oracle HCM Cloud Adapter into the Oracle HCM Cloud Application

- You configure the Oracle HCM Cloud adapter to connect to the Oracle HCM Cloud application.

- You navigate through the set of available business objects (standard and custom) and select an operation to invoke the object. You can also use the search facility to locate a business object.

- You save the adapter configuration and exit the Adapter Configuration Wizard.

- You map the application business object with the logical business object of the Oracle HCM Cloud.

- You complete the design of the SOA composite application.

At runtime, the SOA composite application performs the selected operation on the business object on Oracle HCM Cloud using the Oracle HCM Cloud adapter.

Inbound Integration into Oracle HCM Cloud Adapter from the Oracle HCM Cloud Application

The Oracle HCM Cloud adapter can also be configured for inbound connectivity. For example, you may want to integrate an on-premise application with the Oracle HCM Cloud application by defining an inbound service interface using the Oracle HCM Cloud adapter. This service is then invoked by Oracle HCM Cloud.

- You define an inbound service interface to be invoked by Oracle HCM Cloud.

- You configure a service endpoint by browsing through a list of objects. You select the business object to receive from Oracle HCM Cloud as a request payload to this SOA composite application.

- You complete the Oracle HCM Cloud adapter configuration.

- You complete the design of the SOA composite application as per the business requirements.

3

Designing SOA Composite Applications

This section describes how design a Oracle SOA composite application with the Oracle HCM Cloud adapter in Oracle JDeveloper.

Topics

- Creating a SOA Composite Application
- Adding an Adapter to a SOA Composite Application as a Service or Reference
- Completing Design of a SOA Composite Application

Creating a SOA Composite Application

This section provides an overview of how to create a SOA composite application in which to include the adapter as an exposed service or external reference.

1. Start Oracle JDeveloper.

2. From the **File** menu, select **New** > **Application**.

3. In the New Gallery dialog, select **SOA Application** from the **Items** list, then click **OK**. The SOA Create SOA Application wizard is displayed.

4. Specify an application name, and click **Next**.

5. Specify a project name, and click **Next**.

6. Select **Composite with BPEL Process**, and click **Finish**.

   The SOA composite application is displayed for designing in the SOA Composite Editor.

Adding an Adapter to a SOA Composite Application as a Service or Reference

You can add an Oracle HCM Cloud adapter to a SOA composite application as an inbound (source) service to the **Exposed Services** swimlane or as an outbound (target) reference to the **External References** swimlane in Oracle JDeveloper.

1. Go to the Component Palette in your SOA composite application.

2. Go to the **Cloud** section under **Custom/Third Party**.

   The adapters are displayed.
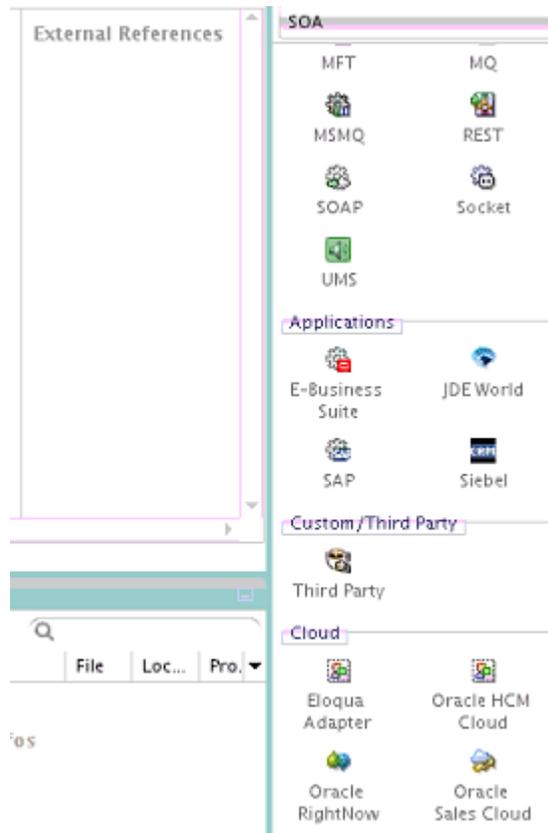
3. Drag the adapter to the appropriate swimlane:

a. To create an inbound (source) service, drag the adapter to the **Exposed Services** swimlane, and see the following sections that describe the wizard pages for configuring the adapter:

- Configuring Basic Information Properties

- Configuring Oracle Cloud Adapter Connection and CSF Key Properties

- Configuring Oracle HCM Cloud Source Request Configuration Properties

- Configuring Oracle HCM Cloud Source Response Configuration Properties

- Reviewing Configuration Values on the Summary Page

b. To create an outbound (target) reference, drag the adapter to the **External References** swimlane, and see the following sections that describe the wizard pages for configuring the adapter.

- Configuring Basic Information Properties

- Configuring Oracle Cloud Adapter Connection and CSF Key Properties

- Configuring Oracle HCM Cloud Target Operation Properties

- Reviewing Configuration Values on the Summary Page

Completing Design of a SOA Composite Application

This section provides an overview of how to complete design of your SOA composite application and deploy the application.

1. Design the remaining contents of your SOA composite application. For example:

    1. Connect the BPEL process to the adapter. For this example, the BPEL process is connected to the adapter as an external reference:

    2. Design the contents of the BPEL process. For example:

        1. Double-click the BPEL process.

        2. Add and configure an invoke activity to invoke the adapter.

        3. Add and configure assign activities to copy the contents of one variable to another when sending and receiving messages to and from the adapter.

        4. Add and configure other activities, as appropriate.

            When complete, view the SOA composite application in the SOA Composite Editor.

    For specific information about creating and designing SOA composite applications, see *Developing SOA Applications with Oracle SOA Suite*.

2. Deploy the SOA composite application:

    a. In the navigator, right-click the project and select **Deploy** > *project_name*.

    b. Follow the steps in the deployment wizard to deploy the SOA composite application to the application server.

4

Designing Oracle Service Bus Business Services

This section describes how to design an Oracle Service Bus business service with the adapter in Oracle JDeveloper.

Topics

- [Creating an Oracle Service Bus Business Service](#)

- [Adding an Adapter to a Business Service as a Service or Reference](#)

- [Completing Design of an Oracle Service Bus Business Service](#)

Creating an Oracle Service Bus Business Service

This section provides an overview of how to create an Oracle Service Bus business service in which to include the adapter in Oracle JDeveloper.

1. Start Oracle JDeveloper.

2. From the **File** menu, select **New** > **Application**.

3. In the New Gallery dialog, select **Service Bus Application** from the **Items** list, then click **OK**.

4. Specify an application name, and click **Next**.

5. Specify a project name.

6. Select **Service Bus**, and click **Finish**.

   The Oracle Service Bus business service is displayed for designing in the Oracle Service Bus Overview Editor.

Adding an Adapter to a Business Service as a Service or Reference

You can add the adapter to an Oracle Service Bus business service as an inbound (source) proxy service to the **Proxy Services** swimlane or as an outbound (target) external service to the **External Services** swimlane in Oracle JDeveloper.

1. Go to the Component Palette in your Oracle Service Bus business service.

2. Go to the **Cloud** section under **Service Bus**.

   The adapters are displayed.
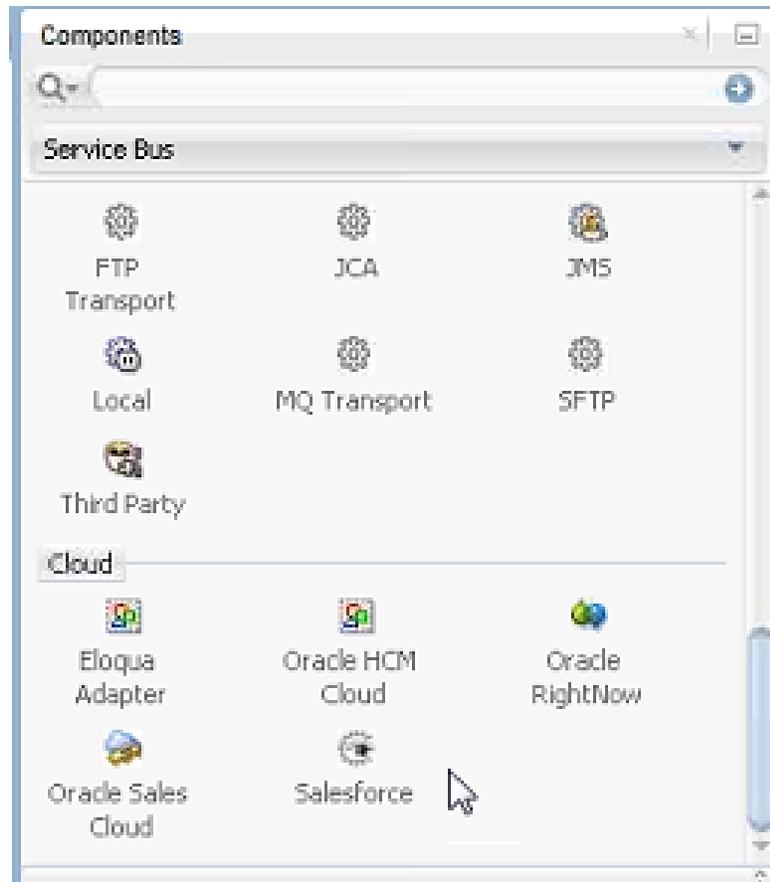
3. Drag the adapter to the appropriate swimlane:

   a. To create an inbound (source) proxy service, drag the adapter to the **Proxy Services** swimlane, and see the following sections that describe the wizard pages for configuring the adapter:

   - Configuring Basic Information Properties

   - Configuring Oracle Cloud Adapter Connection and CSF Key Properties

   - Configuring Oracle HCM Cloud Source Request Configuration Properties

   - Configuring Oracle HCM Cloud Source Response Configuration Properties

   - Reviewing Configuration Values on the Summary Page

   b. To create an outbound (target) external service, drag the adapter to the **External Services** swimlane, and see the following sections that describe the wizard pages for configuring the adapter:

   - Configuring Basic Information Properties

   - Configuring Oracle Cloud Adapter Connection and CSF Key Properties

   - Configuring Oracle HCM Cloud Target Operation Properties

   - Reviewing Configuration Values on the Summary Page

Completing Design of an Oracle Service Bus Business Service

This section provides an overview of how to complete design of your Oracle Service Bus business service and deploy the application.

1. Design the contents of your Oracle Service Bus business service. For example, to configure an Oracle Service Bus proxy service in your business service:

   a. In the Oracle Service Bus Overview Editor, right-click the **Pipeline/Split Joins** lane and select **Insert** > **Pipeline**.

   The Create Pipeline Service dialog is displayed.

   b. Enter a name for the pipeline and select the project location, then click **Next**

   c. Select **WSDL** as the **Service Type**.

   d. To the right of the **WSDL** selection, click the **Browse** icon to select the WSDL.

   e. Select **Application**.

   f. Expand **Resource Chooser** and select the WSDL file, then click **OK**.

   g. Ensure that **Expose as a Proxy Service** is selected.

   h. From the **Proxy Transport** list, select **http**, then click **Finish**.

   The **Pipeline** component is displayed in the Oracle Service Bus Overview Editor.

   i. Connect the external service to the **Pipeline** component.

   For more information about creating and designing an Oracle Service Bus business service, see *Developing Services with Oracle Service Bus*.

2. Open the pipeline that shows the default routing.

3. Verify the service and corresponding operation are displayed in the **Routing Properties** tab at the bottom of the dialog.

   The outbound project is ready for deployment.

4. Deploy the business service.

   a. Select the project, then select **Deploy to Service Bus Server**.

   b. Follow the steps in the deployment wizard.

5

Configuring Oracle HCM Cloud Properties

The Oracle HCM Cloud connection enables you to create integrations with an Oracle HCM Cloud application.

The following sections describe how to configure Oracle HCM Cloud as a source and target in an integration.

Topics

- Configuring Basic Information Properties

- Configuring Oracle Cloud Adapter Connection and CSF Key Properties

- Configuring Oracle HCM Cloud Source Request Properties

- Configuring Oracle HCM Cloud Source Response Properties

- Configuring Oracle HCM Cloud Target Operation Properties

- Reviewing Configuration Values on the Summary Page

Note: If a selected business object or service has a life cycle value of deprecated, a warning message is displayed. If the business object or service captures information about a replacement business object or service, then it may also be displayed. This information comes from the annotation element in the service's WSDL.

For more information about Oracle HCM Cloud, see Oracle HCM.

Configuring Basic Information Properties

You can enter a name and description on the Basic Info page of each source and target 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 source or target Basic Info page. The Basic Info page is the initial wizard page that is displayed whenever you drag a connector to the source or target area.

- 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 connection?	Provide a meaningful name so that others can understand the connection. For example, if you are creating a source Oracle RightNow Cloud connection, you may want to name it `RightNowInboundDirection`). You can include English alphabetic characters, numbers, underscores, and dashes in the name. You cannot include the following: • Blank spaces (for example, My RightNow Connection) • Special characters (for example, #;83& or righ(t)now4) • Multibyte characters
What does this connection do?	Enter an optional description of the connection's responsibilities. For example: `This connection receives an inbound request to synchronize account information with Oracle Sales Cloud.`

Configuring Oracle Cloud Adapter Connection and CSF Key Properties

Enter the Oracle Cloud adapter configuration connectivity and Credential Store Framework (CSF) key values for your integration.

Topics

- What You Can Do from the Oracle Cloud Adapter Connection Page

  What You See on the Oracle Cloud Adapter Connection Page

- What You Can Do from the Oracle Cloud Adapter CSF Key Page

- What You See on the Oracle Cloud Adapter CSF Key Page

What You Can Do from the Oracle Cloud Adapter Connection Page

You can specify the following connection values for the Oracle Cloud adapter.

- Specify the WSDL URL for some adapters. If you are configuring the Oracle Eloqua Cloud adapter, no WSDL is required.

- Specify the security policy.

- Create the authentication key. A key created for one direction (for example, outbound) is also available for selection in the other direction (for example, inbound).

What You See on the Oracle Cloud Adapter Connection Page

The following table describes the key information on the Oracle Cloud adapter Connection page.

Element	Description
WSDL URL	**Note**: This field is not displayed for the Oracle Eloqua Cloud adapter. Specify the WSDL. The WSDL is used to build integrations specific to your instance. You can also select the WSDL from a file system or another source by choosing the browser icon next to the **WSDL URL** field. Click **File System** at the top of the dialog, then browse for the WSDL.
Security Policy	Select the security policy appropriate to your environment (for example, **USERNAME_PASSWORD_TOKEN**). • The wizard shows all policies, including those that may not be applicable. To make a correct selection, you must have a knowledge of policies. For example, you cannot select a SAML-based policy because the identity is not propagated. • The policies you apply to the cloud adapter are unique to the cloud adapter and do not impact other endpoints in the composite.
Authentication Key	Select the CSF authentication key. • **Add**: Click to create a new authentication key. You must specify the key name, user name, and password. To successfully deploy and administer your application, you must specify these same values in Oracle Enterprise Manager Fusion Middleware Control. • **Edit**: Click to edit an authentication key. • **Delete**: Click to delete an authentication key.
Test	Click to validate the authentication key.

What You Can Do from the Oracle Cloud Adapter CSF Key Page

You can specify the following CSF key values for the Oracle Cloud adapter.

• CSF key name

• Company name for the Oracle Eloqua Cloud adapter only.

• User name and password

What You See on the Oracle Cloud Adapter CSF Key Page

The following table describes the key information on the Oracle Cloud adapter CSF Key page.

Element	Description
CSF Key Name	Specify the CSF key to enable runtime injection of credentials. The adapter uses the CSF to retrieve the username and password required for authentication with the application (for example, the Oracle Sales Cloud or Oracle HCM application). This key identifies your login credentials during design-time. To successfully deploy and administer your application, you must specify these same values in Oracle Enterprise Manager Fusion Middleware Control. For instructions, see the *Oracle Cloud Adapters Postinstallation Configuration Guide*.
Company Name	**Note**: This field is only displayed for the Oracle Eloqua Cloud adapter. Specify the Oracle Eloqua company name.
User Name	Enter the user name for connecting to your application (for example, the Oracle Sales Cloud or Oracle HCM application). Your administrator provides you with user credentials.
Password	Enter the password for connecting to your application.
Re-enter Password	Re-enter the same password a second time.

Configuring Oracle HCM Cloud Source Request Properties

Enter the Oracle HCM Cloud source request values for your integration.

Topics

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

What You Can Do from the Oracle HCM Cloud Source Request Page

You can select the following source request value for Oracle HCM Cloud.

- Select the business object.

What You See on the Oracle HCM Cloud Source Request Page

The following table describes the key information on the Oracle HCM Cloud source Request page.

Element	Description
Select Business Object	Select the business object from the Oracle HCM Cloud application to receive as a request that starts the integration.
Object Name Filter	Enter the initial letters of the name to filter the display of business objects.
Name	Displays the name of the selected business object.
Description	Displays a description of the selected business object.

Configuring Oracle HCM Cloud Source Response Properties

Enter the Oracle HCM Cloud source response values for your integration.

Topics

- What You Can Do from the Oracle HCM Cloud Source Response Page

- What You See on the Oracle HCM Cloud Source Response Page

What You Can Do from the Oracle HCM Cloud Source Response Page

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

- No response is required (fire and forget): You deselect the **Send** checkbox on the Response page because a response is not required.

- 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.

What You See on the Oracle HCM Cloud Source Response Page

The following table describes the key information on the Oracle HCM Cloud source Response page.

Select the type of response appropriate to your business requirements:

- No response is required (fire and forget) (See Table 1 for instructions)

- Immediate (synchronous) response is required (See Table 2 for instructions)

The following table describes the fields available if no response is required (fire and forget).

Table 1   Response Type — No Response is Required (Fire and Forget)

Element	Description
Send	Deselect if a response is not required. This option disables the selection of business objects because none are required.
Response Type	If you deselect the **Send** checkbox, this section is disabled.
Select Business Object	If you deselect the **Send** checkbox, this section is disabled.

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

Table 2   Response Type — Immediate (Synchronous) Response is Required

Element	Description
Immediate Response	Select **Immediate** for the Oracle HCM 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.
Also Send faults	Select this checkbox if you want to send fault information to the Oracle HCM Cloud application if any errors are encountered by the integration while processing the request. This is an optional checkbox only available with the **Immediate** response type.
Object Name Filter	Enter the initial letters to filter the display of business objects.
Select Business Object	Select the business object to receive from the Oracle HCM Cloud application as a response.
Name	Displays the name of the selected business object.
Description	Displays the description of the selected business object.

Configuring Oracle HCM Cloud Target Operation Properties

Enter the Oracle HCM Cloud target operation values for your integration.

Topics

- What You Can Do from the Oracle HCM Cloud Target Operations Page

- What You See on the Oracle HCM Cloud Target Operations Page

What You Can Do from the Oracle HCM Cloud Target Operations Page

You can configure the following target operations values for the Oracle HCM 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 HCM Cloud Target Operations Page

The following table describes the key information on the Oracle HCM Cloud target Operations page.

Element	Description
Browse by	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. • **Business Objects**: Select to browse a list of available business objects. • **Services**: Select to browse a list of available services.
Object Filter Name	Enter the initial letters to filter the display of business objects.
Business Objects	Select the business object or 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.
Description	Displays the description of the selected business object or service.

Reviewing Configuration Values on the Summary Page

You can review the specified source or target connector 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 source or target configuration details from the Summary page. The Summary page is the final wizard page for each connection after you have completed your configuration.

- View the configuration details you defined for the source or target. For example, if you have defined an inbound Oracle RightNow Cloud source 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 to update your configuration definitions.

What You See on the Summary Page

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

Element	Description
Summary	Displays a summary of the source or target configuration values you defined on previous pages of the wizard. To return to a previous page to update any values, click the appropriate tab in the left panel.

6

Managing Applications

This section describes how to monitor an Oracle SOA Suite or Oracle Service Bus application that uses the Oracle HCM Cloud adapter from Oracle Enterprise Manager Fusion Middleware Control or Oracle Service Bus Console.
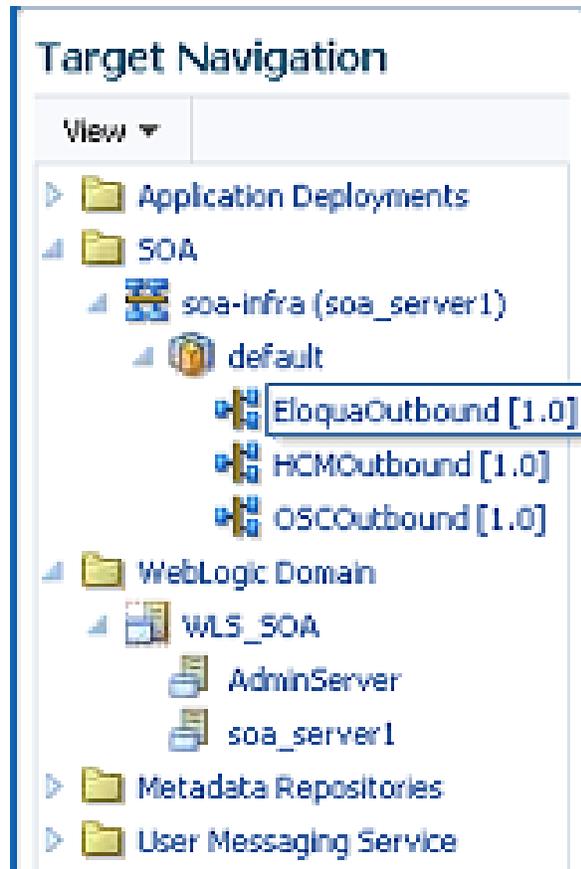
Topics

- Managing the Application in Oracle Enterprise Manager Fusion Middleware Control

- Testing Oracle Service Bus Projects from Oracle Service Bus Console

Managing the Application in Oracle Enterprise Manager Fusion Middleware Control

You manage the SOA composite application or Oracle Service Bus business service that includes your adapter in Oracle Enterprise Manager Fusion Middleware Control.

1. Log in to Oracle Enterprise Manager Fusion Middleware Control.

2. In the navigator, expand the tree to display your SOA composite application or Oracle Service Bus business service project (for this example, a SOA composite application is selected).

3. Select the SOA composite application.

4. Click **Test**.

   The Test Web Service page is displayed.

5. Complete the fields on the page to initiate a test of your composite.

6. Click **Test Web Service**.

   Invocation results are displayed.

7. Click **Launch Flow Trace** to view the flow trace of the SOA composite application, including flow details about the adapter.

   For more information about monitoring applications from Oracle Enterprise Manager Fusion Middleware Control, see *Administering Oracle SOA Suite and Oracle Business Process Management Suite* and *Administering Oracle Service Bus*.

Testing Oracle Service Bus Business Services from Oracle Service Bus Console

You can test Oracle Service Bus business service projects from Oracle Service Bus Console.

1. Log in to Oracle Service Bus Console.

2. In the navigator under **All Projects**, open the project to test.

3. In the navigator, click the business service for that project.

4. Click the **Launch Test Console** (green arrow button) to test the outbound endpoint.

This opens a window that displays the proxy service and the operation to test.

5. Provide the input and click **Execute**.

This sends the payload to the Oracle Cloud application. The response is displayed under the **Response Document** section.

For more information about testing Oracle Service Bus business service projects, see *Administering Oracle Service Bus*.