Oracle® Cloud

Using the Oracle RightNow Cloud Adapter

Release 16.4

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This guide describes how to configure and add the Oracle RightNow Cloud Adapter to an integration in Oracle Integration Cloud Service.

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Preface

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

Topics:

- Audience
- Related Resources
- Conventions

Audience

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

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.

Convention	Meaning
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

Getting Started with the Oracle RightNow Cloud Adapter

Review the following conceptual topics to learn about the Oracle RightNow 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 RightNow Cloud Capabilities
- What Application Version Does the Oracle RightNow 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 RightNow Cloud Capabilities

The Oracle RightNow Cloud Adapter enables you to create an integration with an Oracle RightNow Cloud application.

Oracle RightNow Cloud applications enable organizations to combine web, social network, and contact center customer experiences into a unified, cross-channel service solution in Oracle Cloud. Oracle RightNow Cloud provides the following benefits:

- Integrates easily with the Oracle RightNow 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 when the Oracle RightNow Cloud Adapter is configured in the trigger (source) direction. The event subscription is raised by the Oracle RightNow application.

- Supports the RightNow Object Query Language (ROQL) to query metadata information when the Oracle RightNow Cloud Adapter is configured in the invoke direction.
- Supports custom attributes (new RightNow concept custom attributes and custom fields with the default c package) in business objects to make use of the Oracle RightNow application's support for custom attributes. Note the following details:
  - Custom attributes and custom fields are visible in a hierarchal structure in the Oracle Mapper. For example, assume you create an integration in which you select the **Contact** business object on the Request page of the Adapter Endpoint Configuration Wizard. If you then go to the Oracle Mapper, and expand the **Contact** element, an element called **ContactCustomFields** is displayed. If you expand this element, you see that custom attributes are visible in a hierarchal structure in the tree. Custom attributes are also visible as part of custom packages in the Oracle Mapper.
  - If you have a prebuilt integration from an earlier release of Oracle Integration Cloud Service that contained business objects that now support custom attributes, those attributes are now visible in the Oracle Mapper after you regenerate the artifacts for the integration. However, they are not displayed in a hierarchal structure, but rather the flat structure of previous releases (not under any package). For information about regenerating artifacts, see Regenerating a WSDL File for Integrations.
  - Custom attributes are also visible in the generated artifacts that you can download by selecting **Actions** > **Export** on the page of an integration, such as in the generated WSDL file.
- Automatically handles security policy details required to connect to the Oracle RightNow Cloud application.
- Provides standard error handling capabilities.
- Enables you to perform CRUD (create, get, update, and destroy) operations against business objects in the Oracle RightNow Cloud application.

Video

Video

What Application Version Does the Oracle RightNow Adapter Support?

The Oracle RightNow Adapter is compatible with Oracle RightNow Application release 14.0 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.

Video

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 Oracle Integration Cloud Service.

This table lists the workflow steps for both adapter tasks and overall integration tasks, and provides links to instructions for each step.

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 RightNow Cloud Adapter Connection
2	Create the integration. When you do this, you add trigger and invoke connections to the integration.	Creating an Integration and Adding the Oracle RightNow 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*

2

Creating an Oracle RightNow 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 RightNow Cloud Adapter:

- Subscribe to Oracle RightNow Cloud. This action enables you to create an Oracle RightNow Cloud user account with the correct privileges. You specify this user account when creating an Oracle RightNow Cloud Adapter connection on the Connections page. For information about subscribing, see Oracle RightNow Cloud. For information about specifying these credentials on the Connections page, see Configuring Connection Security.
- Obtain the necessary Oracle RightNow Cloud service catalog service WSDL URL. This WSDL can include support for both business objects and event subscriptions. For information, see Obtaining the Oracle RightNow Cloud WSDL. For information about specifying this URL on the Connections page, see Configuring Connection Properties.
- To exchange events, you must perform a number of configuration steps. For an example of how to exchange events between Oracle RightNow and another application, see Enabling Event Subscriptions in the Oracle RightNow Cloud Adapter.

- If you create an integration in which a trigger Oracle RightNow Adapter connection selects a business object, you must create a custom event handler PHP script or use a SOAP client to invoke the integration.

Obtaining the Oracle RightNow Cloud WSDL

You must obtain the Oracle RightNow WSDL. Only the standard WSDL is supported. The partner WSDL is not supported.

The standard WSDL can include support for both business objects and event subscriptions. This enables you to receive either a business object or an event subscriptions as a request from the Oracle RightNow application. Event subscriptions are supported only if the Oracle RightNow application version is equal to or greater than version 15.5 (May 2015 release). Otherwise, only business objects are visible for selection in the configuration wizard.

To obtain the standard WSDL:

1. Collect the following details from your Oracle RightNow Cx Account:
   - Host
   - Interface name
   - User name and password
2. Open your web browser and enter the following URL to obtain the standard WSDL, replacing the host name and interface details as appropriate.

   `https://host_name/cgi-bin/interface.cfg/services/soap?wsdl`

   For example:

   ```
   https://integration-test.rightnowdemo.com/cgi-bin/integration_
   test.cfg/services/soap?wsdl
   ```

   or

   ```
   https://integration-test.rightnowdemo.com/cgi-bin/integration_test.cfg/services/
   soap?wsdl=typed
   ```

   Permissions for the Public SOAP API must be enabled for the user account to enable use of the Oracle RightNow Connect Web Services for SOAP API. Permissions for the Public SOAP API enable staff members with this profile to access the public SOAP API through account or session authentication.

   The Oracle RightNow adapter does not support a partner WSDL/generic WSDL. Therefore, the following URL is not supported.

   ```
   https://integration-test.rightnowdemo.com/cgi-bin/integration_test.cfg/services
   /soap?wsdl=generic
   ```

Enabling Event Subscriptions in the Oracle RightNow Cloud Adapter

Before you can subscribe to events with the Oracle RightNow Cloud Adapter, you must perform a series of configuration tasks.

- Verifying the Ability to Publish Business Events
- Displaying All Configuration Parameters Associated with Data Synchronization

- Enabling Data Synchronization Functionality
- Setting the IP Range for Incoming Messages (This step is optional)
- Setting the Credentials to Use for Incoming Requests
- Setting the Credentials to Use for Outgoing Requests

Verifying the Ability to Publish Business Events

This integration is designed to work with Oracle Service Cloud Release 15.8.

To verify the ability to publish business events:

1. Log in to the Oracle RightNow Cloud application as a user with administrator privileges.
2. In the navigation pane, click **Configuration** > **Site Configuration** > **Configuration Settings**.

   A search page is displayed.
3. In the **Configuration Base** section, select only the **Site** option.
4. In the **Key** field, enter a wildcard string such as `EVENT%`.
5. Click **Search**.

   This search returns all strings beginning with **EVENT**.

   If several configuration parameters beginning with **EVENT_** are displayed (for example, **EVENT_NOTIFICATION_ENABLED**), the functionality to publish events is available in this version of the Oracle RightNow Cloud application.

Displaying All Configuration Parameters Associated with Data Synchronization

1. Ensure that the following configuration parameters are displayed:
   - **EVENT_NOTIFICATON_ENABLED**
   - **EVENT_NOTIFICATION_MAPI_SEC_IP_RANGE**
   - **EVENT_NOTIFICATION_MAPI_USERNAME**
   - **EVENT_NOTIFICATION_MAPI_PASSWD**
   - **EVENT_NOTIFICATION_SUBSCRIBER_USERNAME**
   - **EVENT_NOTIFICATION_SUBSCRIBER_PASSWD**

Enabling Data Synchronization Functionality

To enable data synchronization functionality:

By default (that is, on a newly-provisioned Oracle RightNow Cloud instance), the data synchronization functionality is *not* enabled. It must be manually enabled (if necessary).

1. From the Results page, select **EVENT_NOTIFICATION_ENABLED**.

   EVENT_NOTIFICATION_ENABLED is a boolean parameter. It is the global switch that controls whether business events from Oracle RightNow Cloud are

published to other (external) applications. The default value is **No**, meaning that events are *not* published to external applications.

2. In the **EVENT_NOTIFICATION_ENABLED** tab, select **Yes** from the **Required** list.

3. Click the **Save & Close** button.

Setting the IP Range for Incoming Messages (This step is optional)

By default, the configuration parameter **EVENT_NOTIFICATION_MAPI_SEC_IP_RANGE** is empty. This parameter enables incoming messages to be accepted only if coming from a specific IP address. This is an optional parameter. If not set, no IP restrictions are enforced and requests from any IP address are accepted. If the parameter has even one value (that is, not null), only requests from the specified IP address are accepted. To limit the addresses from which requests are accepted, enter them as comma-separated values.

1. From the list of configuration parameters, click the item named **EVENT_NOTIFICATION_MAPI_SEC_IP_RANGE**.

2. On the page that is displayed, enter the list of IP addresses as comma-separated values.

3. Click the **Save & Close** button.

Setting the Credentials to Use for Incoming Requests

The **EVENT_NOTIFICATION_MAPI_USERNAME** and **EVENT_NOTIFICATION_MAPI_PASSWD** parameters store the credentials used by external applications while invoking Oracle RightNow Cloud web services for subscription requests or transactional requests. Both parameters have no default values; you must specify values for each.

Note: You must specify a user name that does *not* correlate with an existing (actual) user. If you specify an actual user name, you receive an error message that includes details similar to the following:

```
Fault String : Invalid Field While processing Contact-
>ExternalReference(string). Fault Details :
```

When Oracle Integration Cloud Service asks for the credentials to communicate with Oracle RightNow Cloud, it uses those associated with **EVENT_NOTIFICATION_MAPI_USERNAME** and **EVENT_NOTIFICATION_MAPI_PASWD** to send messages to Oracle RightNow Cloud.

- **EVENT_NOTIFICATION_MAPI_USERNAME** stores the user name specified in the header of incoming requests.
- **EVENT_NOTIFICATION_MAPI_PASWD** stores the password associated with the user name specified. The password is stored in encrypted format.

1. From the list of configuration parameters, click **EVENT_NOTIFICATION_MAPI_USERNAME**.

2. Specify the username and save the changes.
3. Specify the password for **EVENT_NOTIFICATION_MAPI_PASSWD** and save the changes.

Setting the Credentials to Use for Outgoing Requests

The **EVENT_NOTIFICATION_SUBSCRIBER_USERNAME** and **EVENT_NOTIFICATION_SUBSCRIBER_PASSWD** parameters store the credentials used by Oracle RightNow Cloud while sending event notifications to the external subscriber. Neither parameter has a default value; you must specify values for each.

- The **EVENT_NOTIFICATION_SUBSCRIBER_USERNAME** stores the user name to use in the event notification message sent to the external application subscribed to the event.
- **EVENT_NOTIFICATION_SUBSCRIBER_PASSWD** stores the password associated with the user name specified. The password is stored in encrypted format.

1. From the list of configuration parameters, click **EVENT_NOTIFICATION_SUBSCRIBER_USERNAME**.
2. Specify the username and save the changes. Ensure that the user is defined in Oracle Integration Cloud Service.
3. Specify the password for **EVENT_NOTIFICATION_SUBSCRIBER_PASSWD**.
4. Save the changes.

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 WSDL to use in this integration. For example:

   ```
   https://integration-test.rightnowdemo.com/cgi-bin/integration_test.cfg/services/soap?wsdl=typed
   ```

   For information about obtaining the WSDL, see Obtaining the Oracle RightNow Cloud WSDL.

3. Click **OK**.
4. Configure connection security. See Configuring Connection Security.

Configuring Connection Security

Configure security for your Oracle RightNow Cloud Adapter connection by selecting the security policy and security token.

1. Click **Configure Credentials**.
2. Enter your login credentials:
   a. In the **Security Policy** field, 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.
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%.

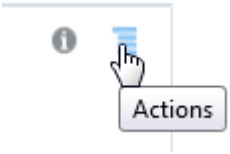
   ```
   The connection test was successful!
   ```

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

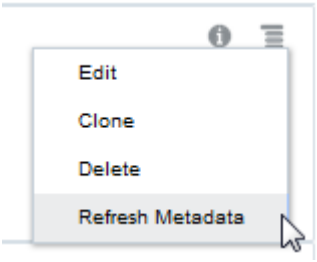
You can manually refresh the currently-cached metadata available to adapters that have implemented metadata caching. Metadata changes typically relate to

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.
```

3

Creating an Integration

Integrations use the adapter connections you created to your applications, and define how information is shared between those applications. You can view, export, create, import, edit, 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 target endpoints in integrations. Click the following topics for more information.

Topic

- Creating Integrations (in *Using Oracle Integration Cloud Service*)

4

Adding the Oracle RightNow Cloud Adapter Connection to an Integration

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

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

Topics

- Configuring Basic Information Properties
- Configuring Oracle RightNow Cloud Trigger Request Properties
- Configuring Oracle RightNow Cloud Trigger Response Properties
- Configuring Oracle RightNow Cloud Invoke Operation Properties
- Reviewing Configuration Values on the Summary Page

For more information about Oracle RightNow Cloud Adapter, see Oracle RightNow 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?	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: • Blank spaces (for example, `My Inbound Connection`) • Special characters (for example, `#;83&` or `righ(t)now4`) • Multibyte characters
What does this endpoint do?	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.`

Configuring Oracle RightNow Cloud Trigger Request Properties

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

Topics

- What You Can Do from the Oracle RightNow Cloud Source Request Page
- What You See on the Oracle RightNow Cloud Source Request Page

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

You can configure the following request value for Oracle RightNow Cloud.

- Select to receive a business object as a request from the Oracle RightNow application. This selection invokes the integration.
- Select to receive an event subscription as a request from the Oracle RightNow application. This selection invokes the integration. Event subscriptions are supported only if the Oracle RightNow Application version is equal to or greater than release 15.5 (May 2015). Otherwise, only business objects are supported.

Note: The Oracle RightNow application has a limit of 20 subscriptions for every available event subscription. For example, you can build a maximum of 20 integrations, with all subscribing to the Customer Created Event integration and 20 integrations subscribing to the Contact Destroy Event integration. If you create a 21st integration for the same event subscription, this may lead to errors during integration activation.

What You See on the Oracle RightNow Cloud Trigger Request Page

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

Element	Description
Configure a Request	Select the endpoint configuration option by choosing a business object or event subscription. • **With Business Objects**: Select to display a list of business objects. • **Event Subscription**: Select to display a list of event subscriptions to which to subscribe.
Select a Business Object (is displayed if **With Business Objects** is selected)	Select the business object from the Oracle RightNow Cloud application to receive as a request that starts the integration.
Filter by object name (is displayed if **With Business Objects** is selected)	Enter the initial letters to filter the display of business objects. You can also select a filter type: • **All**: Displays all objects. • **Custom**: Displays objects you created. These business objects are identified by special icons. The naming convention is a combination of the package name and object name joined by a ".". For example, if there is a custom object package called `CO` and an object named `PurchaseProduct`, the wizard displays the custom object as `CO.PurchaseProduct`. • **Standard**: Displays business objects delivered as part of the standard Oracle RightNow Cloud application.
Select Event (is displayed if **Event Subscription** is selected)	Select the event subscription from the Oracle RightNow Cloud application. This event is received as a request that starts the integration. **Note**: Only the **Organization** and **Contact** business objects are supported for event subscriptions in this release.

Element	Description
Event Name Filter (is displayed if **Event Subscription** is selected)	Enter the initial letters to filter the display of business events.

Configuring Oracle RightNow Cloud Trigger Response Properties

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

Topics

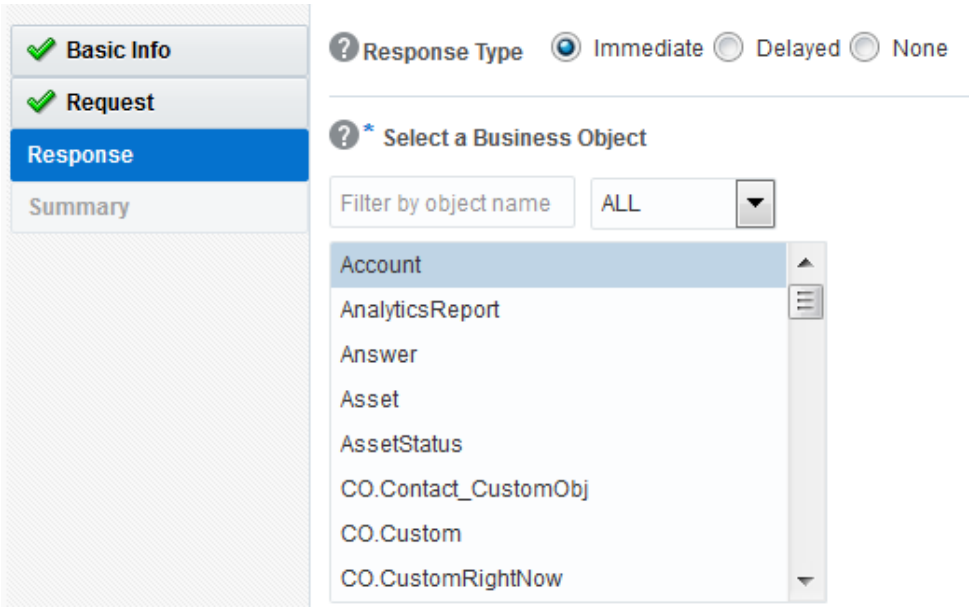
- What You Can Do from the Oracle RightNow Cloud Trigger Response Page
- What You See on the Oracle RightNow Cloud Trigger Response Page

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

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

- 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 RightNow Cloud Trigger Response Page

Select the business object for the integration to send as a response document to the Oracle RightNow Cloud application.

The following types of responses are available.

- 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 RightNow 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. You can also select a filter type: • **All**: Displays all objects. • **Custom**: Displays objects you created. These business objects are identified by special icons. The naming convention is a combination of the package name and object name joined by a ".". For example, if there is a custom object package called `CO` and an object named `PurchaseProduct`, the wizard displays the custom object as `CO.PurchaseProduct`. • **Standard**: Displays business objects delivered as part of the standard Oracle RightNow Cloud application.
Select a Business Object	Select the business object for the integration to send as a response document to the Oracle RightNow Cloud application.

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	Select **Delayed** to configure a successful callback response, a failed callback response, or both. This enables you to configure the operation and business objects that you want the Oracle RightNow Cloud application to process as part of a successful callback response, failed callback response, or both.
Successful Response/Failed Response	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). • **Successful Response**: Select to configure the operation and business objects that you want the Oracle RightNow 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 RightNow Cloud application to process as part of a failed callback response sent by the integration.
Select an Operation Type	Select the type of create, read, update, and delete (CRUD) operation to perform on the business object. Only CRUD is currently available for selection. CRUD represents functions implemented in relational database applications. Each letter maps to a standard SQL statement, HTTP method, or DDS operation. The following CRUD operations are supported: • **Create** • **Destroy** • **Update**

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

Element	Description
Filter By object name	Enter the initial letters to filter the display of business objects. You can also select a filter type: • **All**: Displays all objects. • **Custom**: Displays objects you created. These business objects are identified by special icons. The naming convention is a combination of the package name and object name joined by a '.'. For example, if there is a custom object package called `CO` and an object named `PurchaseProduct`, the wizard displays the custom object as `CO.PurchaseProduct`. • **Standard**: Displays business objects delivered as part of the Oracle RightNow Cloud application.
Select Business Objects (RightNow *Version* API)	Select the business objects for the integration to send as a response document to the Oracle RightNow Cloud application.
Your Selected Business Objects	Displays the selected business objects.

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

Table 4-3 Response Type — No Response is Required

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

Configuring Oracle RightNow Cloud Invoke Operation Properties

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

Topics

- What You Can Do from the Oracle RightNow Cloud Target Operations Page
- What You See on the Oracle RightNow Cloud Target Operations Page

What You Can Do from the Oracle RightNow Cloud Invoke Operations Page

You can configure the following values for Oracle RightNow Cloud:

- Select to configure a single operation or multiple operations in a batch.
- Select the operation (CRUD or RightNow Object Query Language (ROQL)).

- Select the business objects.
- Enable aspects of server-side processing.

What You See on the Oracle RightNow Cloud Invoke Operations Page

The following table describes the key information on the Oracle RightNow Cloud invoke Operations page.

Element	Description
Select an Operation Mode	Select the operation mode in which to define business objects: • **Single Operation**: Select to configure a single operation. • **Batch Operation**: Select to configure multiple operations in a batch. This enables you to run multiple operations in a defined sequence. Selecting this option refreshes the page to display an option for the following: – **Click to add an operation to the List**: Click to create a list of batch operations and their business objects. The operations are performed in the order in which they appear in the list (from top to bottom). When complete, click **OK**. When you complete invoke Oracle RightNow adapter configuration and click **Next** to access the Summary page, you can perform the following batch operation tasks: – **Edit** icon: Click to edit an operations row in the table or change the order of batch operations. – **Delete** icon: Click to delete a selected operation row in the table.

Element	Description

Select an Operation Type	Select the type of operation to perform on the business objects in an Oracle RightNow application:
	• **CRUD**: Represents the create, read, update, delete, or destroy operations to perform on Oracle RightNow business objects. Each letter maps to a standard SQL statement, HTTP method, or DDS operation. Select the CRUD operation to perform on the business object: **Create**, **Destroy**, **Get**, or **Update**.
	• **ROQL**: (RightNow Object Query Language) enables you to define an ROQL-based query to send as a request to perform in the Oracle RightNow application. If you select this option, the page is refreshed to display a field for entering a query.
	– **ROQL query statement**: Enter a valid ROQL query in the field. For example:
	`SELECT contacts FROM organization WHERE name = 'RightNow'`
	Use the **Find** field to search for an entry in the ROQL query and the **Go to Line** field to go to a specific line in the ROQL query.
	The query can include custom fields and parameters.
	– **Parameter Bindings**: Displays any parameter bindings included in the specified query. For example, `orgId` is a parameter in the following query:
	`SELECT Organization FROM Organization WHERE id = &orgId`
	Enter a query with a parameter and click the **Refresh** icon to the right of **Parameter Bindings**. This displays a text box in which to enter a test value for the parameter.
	– **Test My Query**: Click to validate the query against the Oracle RightNow application. Query results are displayed. If errors occur, you receive results about how to correct the query.

Element	Description
Filter by object name	Enter the initial letters of an object name to display a range of objects. You can also select a filter type: • **All**: Displays all objects. • **Custom**: Displays objects you created. These business objects are identified by special icons. The naming convention is a combination of the package name and object name joined by a '.'. For example, if there is a custom object package called `CO` and an object named `PurchaseProduct`, the wizard displays the custom object as `CO.PurchaseProduct`. • **Standard**: Displays business objects delivered as part of the Oracle RightNow application.
Select Business Objects (RightNow *Version* API)	Select a single business object or multiple business objects from the Oracle RightNow application. The selected operation acts upon these business objects. The RightNow API version that is displayed is based on the Oracle RightNow Cloud application version to which you are connected. When you complete invoke operation configuration, the selected operation and business objects are defined in the integration-centric WSDL file.
Your Selected Business Objects	Displays the selected business objects.

Element	Description
Processing Options	Select to enable aspects of server-side processing. By default, no options are selected. When complete, click **OK**. • **Suppress External Events**: Select to prevent the Oracle RightNow application from processing any external events raised after the completion of create, update, or delete operations. • **Suppress Rules**: Select to prevent business rules from running after the completion of create, update, or delete operations. Business rules are tools for simplifying and automating common business tasks. See the RightNow documentation for more information. • **Suppress Response**: Select to prevent the CRUD **Create** operation from returning a response ID. If this check box is disabled, the **Create** operation returns an ID of the created object. • **Commit After**: Select to group multiple operations in a single transaction. At runtime, when a set of operations in a batch is defined as part of a single operation, the **Commit After** action is sent after the last operation in that transaction boundary. When an operation from the subset of the batch operation fails, it is handled by throwing a fault to the client. This option is only available with batch operations.

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

5

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*)

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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*)

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Troubleshooting Oracle RightNow Cloud Adapter

Topics:

- Events Are Not Exchanged Between Oracle RightNow and Oracle Sales Cloud

Events Are Not Exchanged Between Oracle RightNow and Oracle Sales Cloud

If you have configured and activated an integration between Oracle RightNow and Oracle Sales Cloud, but Oracle RightNow does not invoke the integration after a record is created, ensure that you set **EVENT_NOTIFICATION_ENABLED** to **YES** in the Oracle Service Cloud application.

For more information, see Enabling Event Subscriptions in the Oracle RightNow Cloud Adapter.