Oracle® Fusion Middleware

Using the ServiceNow Adapter

Release 14*c* (14.1.2)

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Oracle Fusion Middleware Using the ServiceNow Adapter, Release 14*c* (14.1.2)

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Contents

Preface

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

This section consists of the following topics:

- Audience
- Related Resources
- Conventions

Audience

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

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.

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Introduction to ServiceNow Adapter

This section introduces the ServiceNow Adapter.

This chapter consists of the following sections:

- About the ServiceNow Adapter
- Installing the Cloud Adapters
- Performing Postinstallation Configuration Tasks
- Obtaining the Authentication Credentials
- Unsupported Features
- Restrictions

About the ServiceNow Adapter

The ServiceNow Adapter integrates on-premises and SaaS applications with the Geneva and Helsinki release of ServiceNow.

ServiceNow provides platform-as-a-service (PaaS) enterprise service management software for human resources, law, facilities management, finance, marketing, and field operations. ServiceNow specializes in IT service management (ITSM) applications and automates common business processes. ServiceNow contains a number of modular applications that can vary by instance and user.

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*.

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 ServiceNow Adapter, the credentials require three properties (CSF Key name, 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.

- The display of properties in the **Properties** tab for a reference (outbound) adapter in Oracle Enterprise Manager Fusion Middleware Control (for example, service WSDL URL, CSF key used, and others). These are the reference adapters that you select on the Services and References page.

- 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:

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

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

- The policy attachments feature available when you right-click a cloud adapter in the **Exposed Service** swimlane or **External References** swimlane in Oracle JDeveloper.

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.

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Prerequisites

The following pre-requisites must be performed or checked on ServiceNow instance before utilizing Oracle Cloud Adapter for ServiceNow.com to connect to that particular ServiceNow instance.

Enable Webservices for the Specified Tables

A user must check the following ServiceNow tables and ensure that webservices have been enabled for them:

Tables	Operations
sys_plugins	To get standard apps
sys_app	To get custom apps
sys_db_object	To get modules
sys_ui_section	To get View fields in Get operation
sys_ui_element	To get View fields in Get operation
sys_soap_message	For Insert/Delete of ServiceNow Outbound SOAP message
sys_soap_message_function	For Insert ServiceNow Outbound SOAP message Function
sys_script	For Insert/Update/Delete of ServiceNow Business Rule

A user must follow these steps to get enable webservices for the tables in the ServiceNow ServiceNow instance:

1. Log in to ServiceNow application (*xxx*.service-now.com) with administrator credentials.

2. On the home page, type **tables** in the quick search box on the left pane and click the **Tables** hyperlink from the search results. The right pane displays the list of tables.
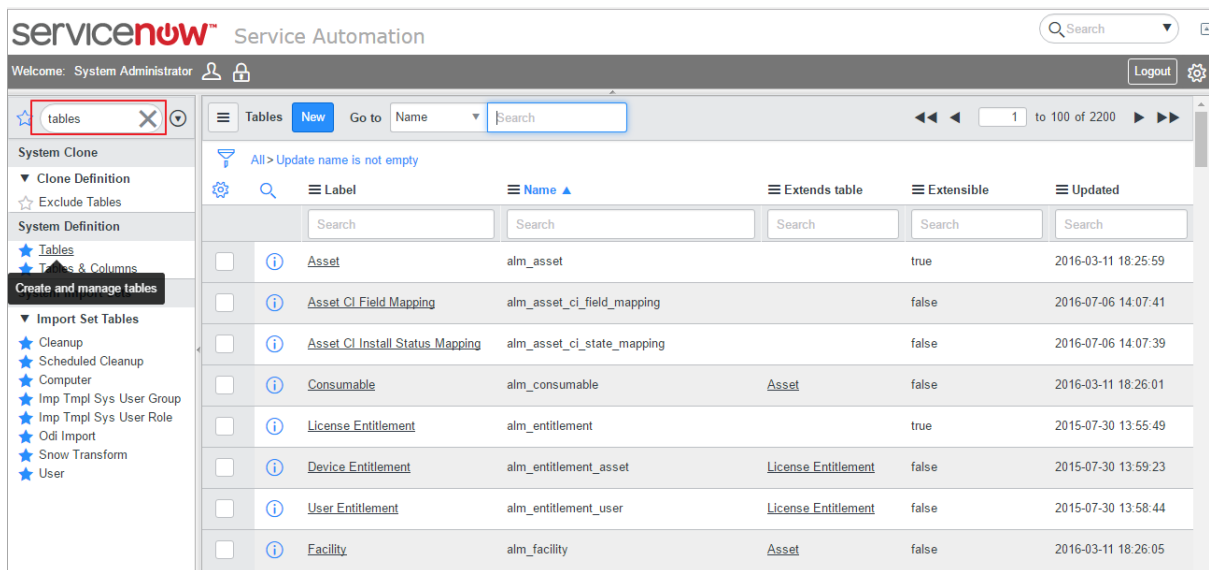
3. Search for each of the ServiceNow tables (from the table-above) using Search box or locate a table using the show and hide filter as shown in the following image.

   The following screenshot displays the search results of the sys_plugins ServiceNow table
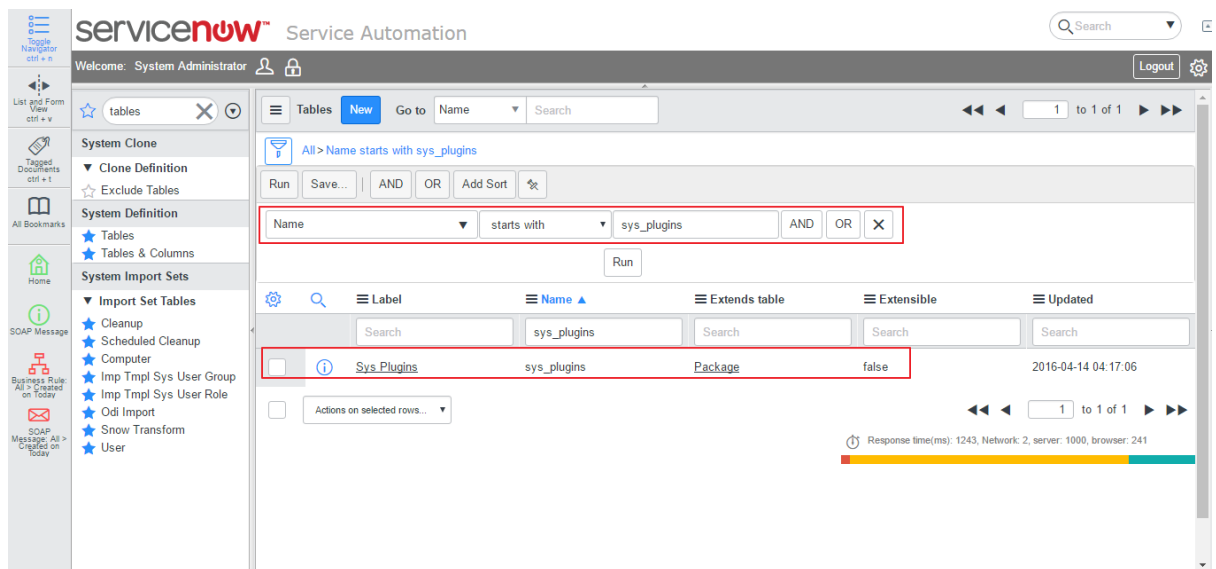
4. Click and open the table.

5. Locate and select the check box **Allow access to this table via web services** if it is not selected already.
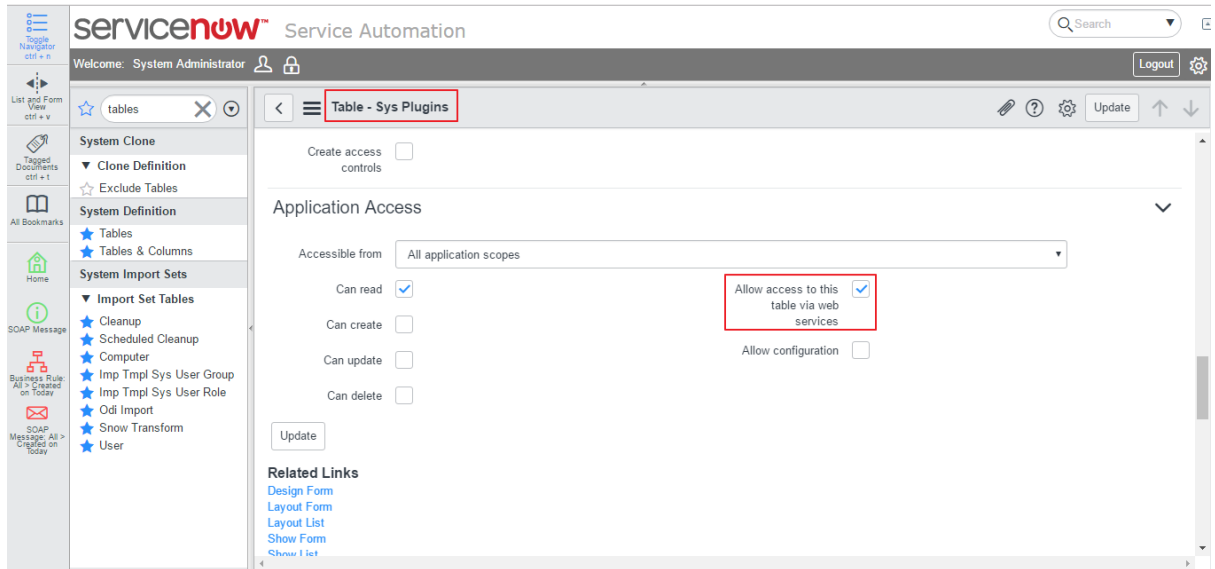
6. Save the settings.
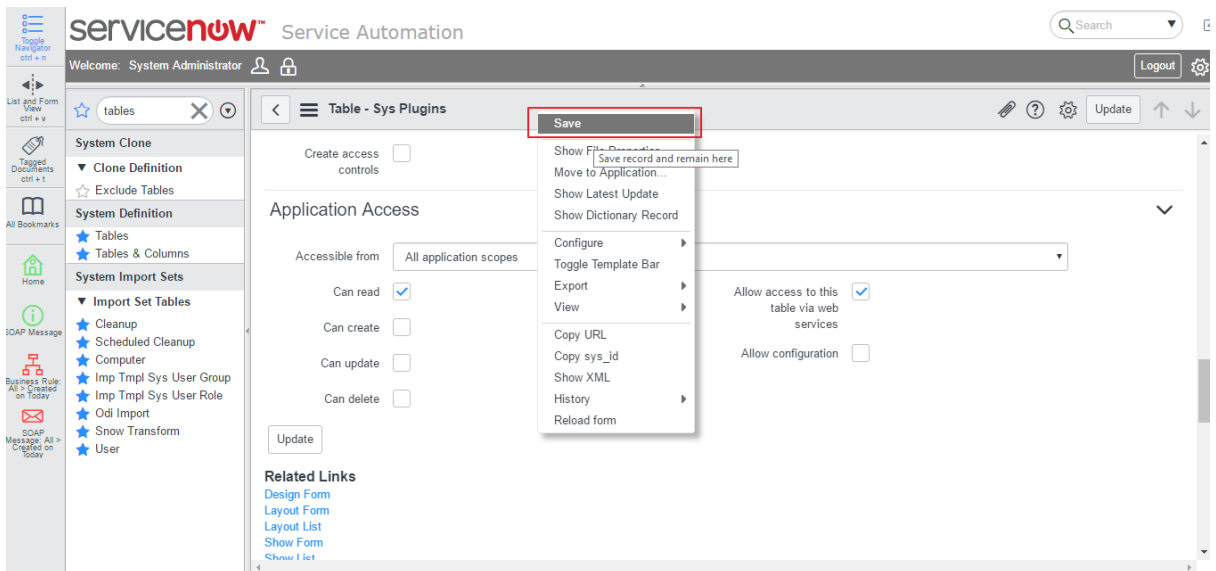
Perform the above steps for all ServiceNow tables listed above.

Ensure Integration User has Appropriate Role

ServiceNow user with default Soap SOAP role (without any customization or changes) is required to configure or use the Oracle cloud adapter for ServiceNow.com.

The default soap SOAP role has below the following permissions: -

Can query, create, update, and delete records on all tables, as well as execute scripts. This is verified by us but ServiceNow.com recommends to use using the admin role.

> **Note**: In case a SOAP role has been modified or due to some reasons the SOAP role is not functional, then the user must follow ServiceNow.com recommendations and use the admin role.

In case, the user does not want to assign the admin role then the user can create a custom role, add accesses to the following tables, and assign the default SOAP role to the custom role.

- sys_plugins
- sys_app
- sys_db_object
- sys_ui_section
- sys_ui_element
- sys_soap_message
- sys_soap_message_function
- sys_script

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Understanding the ServiceNow Adapter Features

The ServiceNow Adapter provides the following features.

This chapter consists of the following topics:

- Understanding ServiceNow Adapter Design Integration Patterns
- Designing an Integration with the Adapter Configuration Wizard
- Monitoring Your Application During Runtime
- Artifacts Creation

Understanding ServiceNow Adapter Design Integration Patterns

The ServiceNow Adapter supports the following design integration patterns in the Adapter Configuration Wizard.

Outbound Integration from the ServiceNow Adapter into the ServiceNow Application

- You configure the ServiceNow Adapter to connect to the ServiceNow 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 ServiceNow.
- You complete the design of the SOA composite application.

At runtime, the SOA composite application performs the selected operation on the business object on ServiceNow using the ServiceNow Adapter.

Inbound Integration into the ServiceNow Adapter from the ServiceNow Application

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

- You define an inbound service interface to be invoked by ServiceNow.
- You configure a service endpoint by browsing through a list of objects. You select the business object to receive from ServiceNow as a request payload to this SOA composite application.

- You select the fields to be included in the payload from ServiceNow.

- You select the event type, on which ServiceNow will be notifying the ServiceNow Adapter. Optionally you can also specify the conditions on which the ServiceNow Adapter will be receiving the notifications

- You complete the ServiceNow Adapter configuration.

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

Designing an Integration with the Adapter Configuration Wizard

You use the Adapter Configuration Wizard to include the ServiceNow Adapter in a SOA composite application or an Oracle Service Bus business service.

The Adapter Configuration Wizard consists of configuration pages that enable you to select the artifacts required to communicate with the ServiceNow 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 ServiceNow instance name, security policy (BASIC AUTH), and CSF 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 CSF authentication key values in Oracle Enterprise Manager Fusion Middleware Control. For information, see the ***Oracle Cloud Adapters Postinstallation Configuration Guide***.

You can also test the connection to the ServiceNow 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 ServiceNow application. Any errors that occurred during the attempt to connect are also displayed.
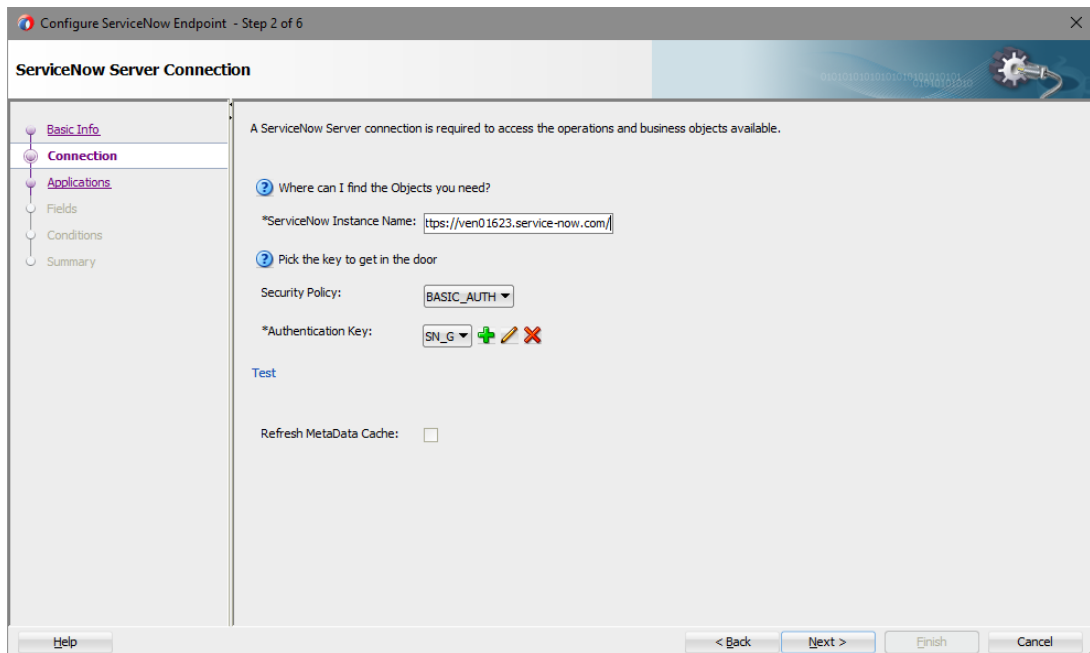
The **Applications** page prompts you to select the application and a module within that application.
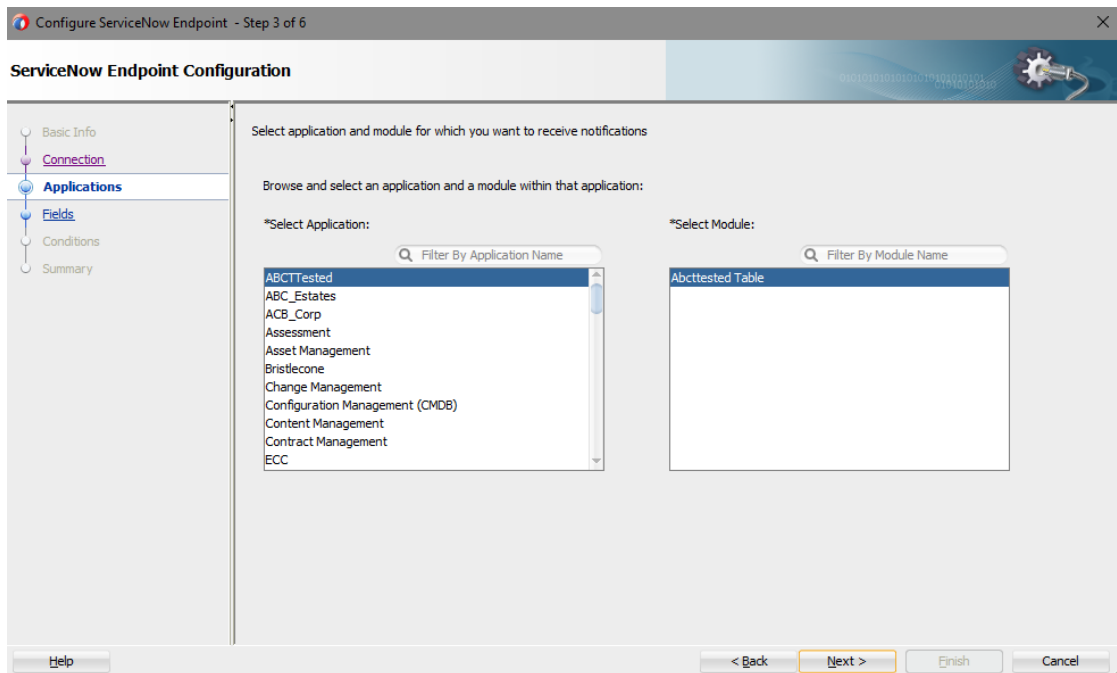
The **Fields** page prompts you to select fields that you want to receive in the notification.
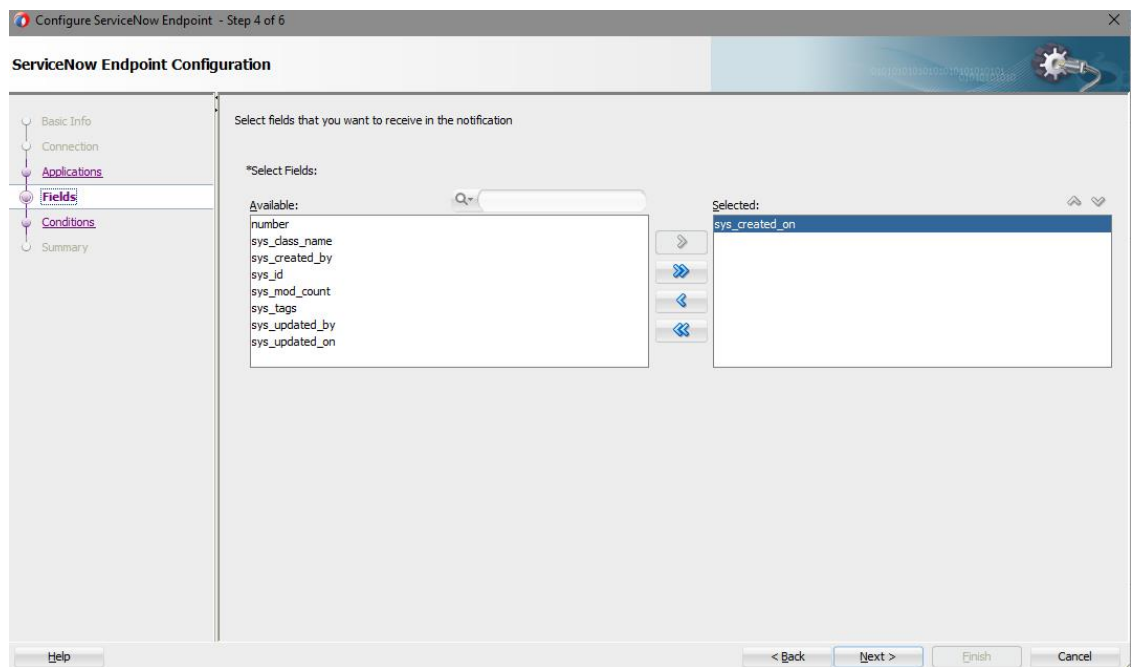
The **Conditions** page prompts you to select the event type and enter the fields conditions on which the even should be received.
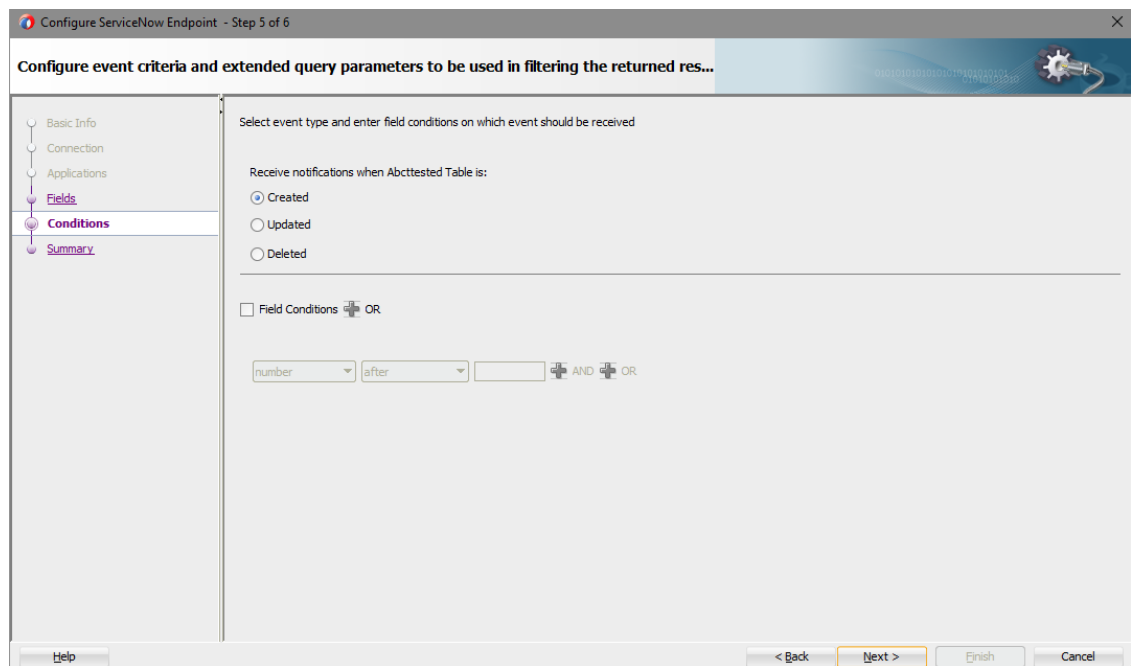
The **Summary** page (Inbound) displays your selections from the previous pages.
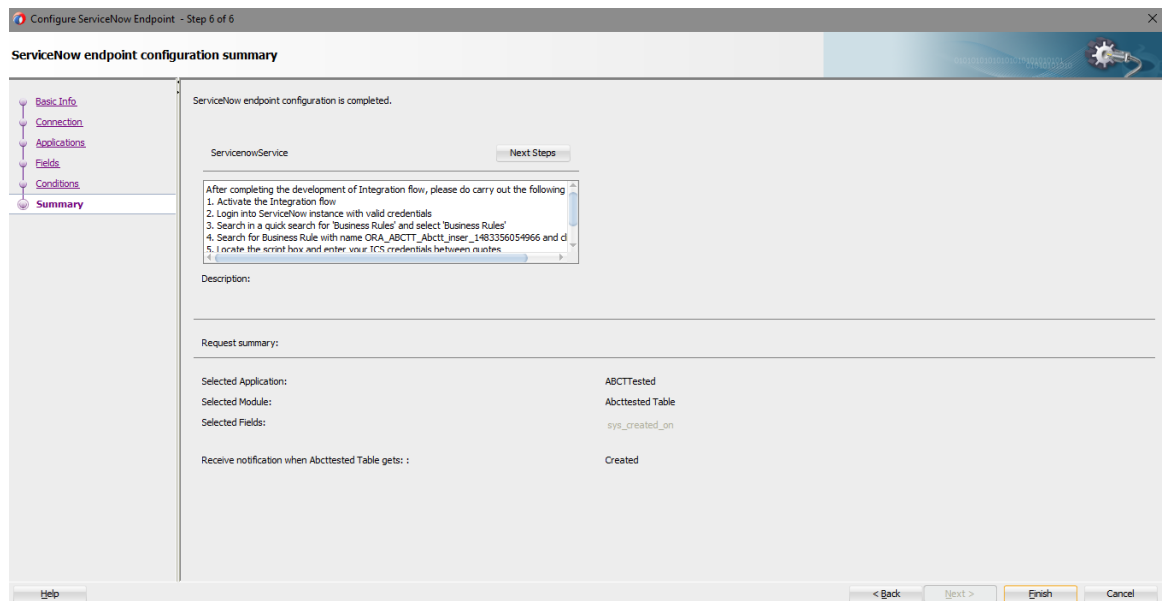
- Outbound (source) direction:

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

    The **Connection** page prompts you to specify the ServiceNow instance name, security policy (basic authentication), and CSF authentication key to use. This is the same page that is displayed in 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.
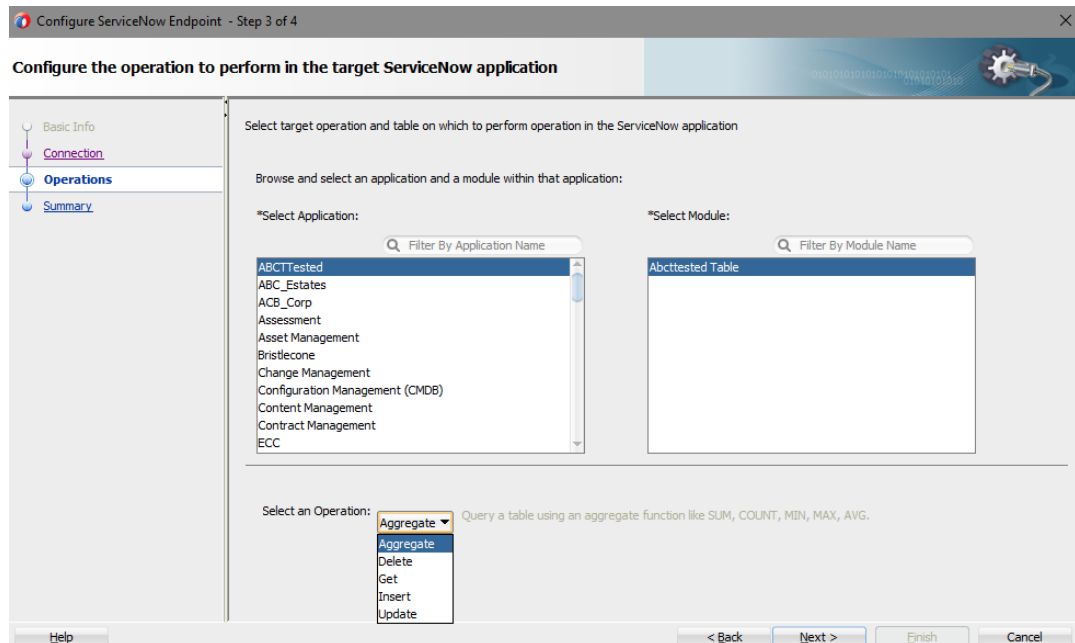
The **Summary** (Outbound) page displays your selections from the previous pages.
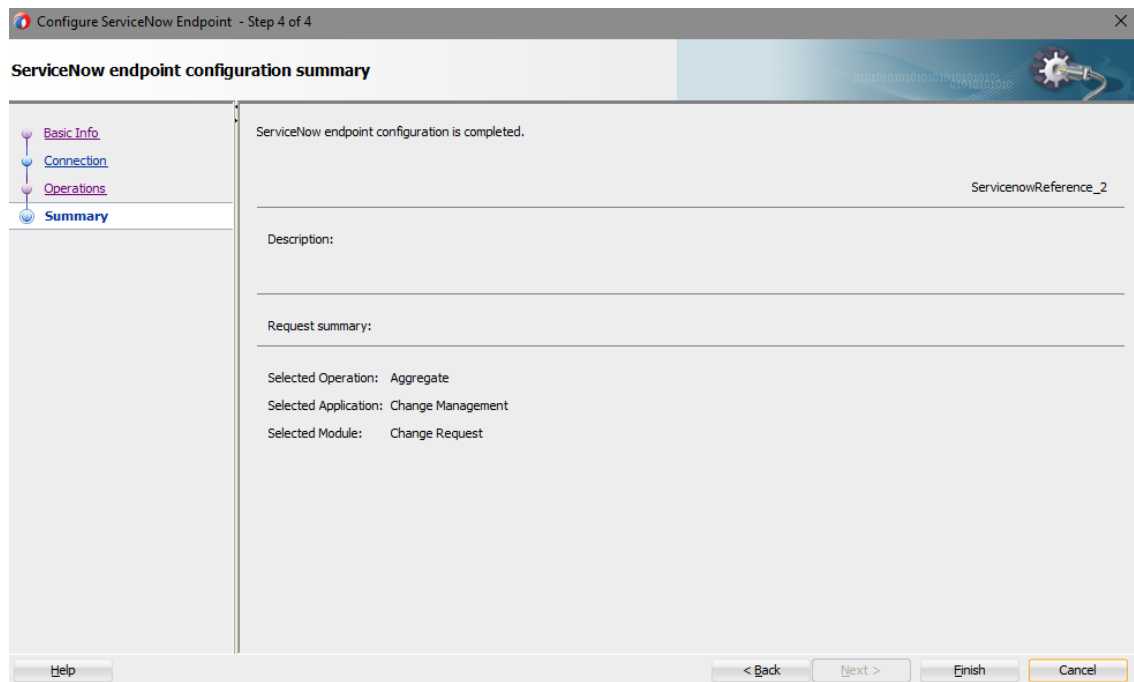
Monitoring Your Application During Runtime

This section describes the runtime aspects of using the ServiceNow Adapter.

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.**

Artifacts Creation

The following artifacts are created for each adapter instance in the Application 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.

For information about the details to specify in the fields of the wizard pages, see Configuring Oracle ServiceNow Adapter Properties.

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Designing SOA Composite Applications

This section describes how to design a SOA composite application with the ServiceNow Adapter.

This section consists of the following topics:

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 Reference

You can add a ServiceNow Adapter to a SOA composite application 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.
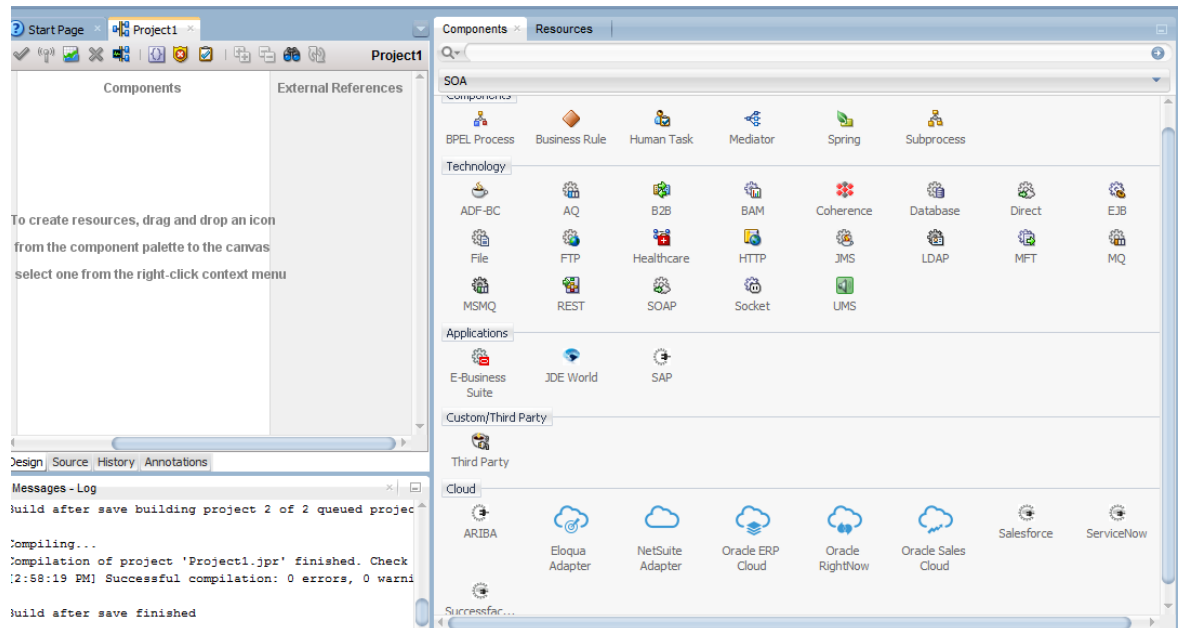
3. Drag the adapter to the appropriate swimlane:

   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 ServiceNow Applications Properties

      • Configuring ServiceNow Fields Properties

      • Configuring ServiceNow Conditions 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

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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:

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

   d) Design the contents of the BPEL process. For example:

      a. Double-click the BPEL process.

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

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

      d. Add and configure other activities, as appropriate.

      e. 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.

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Designing Oracle Service Bus Business Services

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

- Creating an Oracle Service Bus Business Service
- Adding an Adapter to a Business Service as a 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 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 Custom/Third Party.
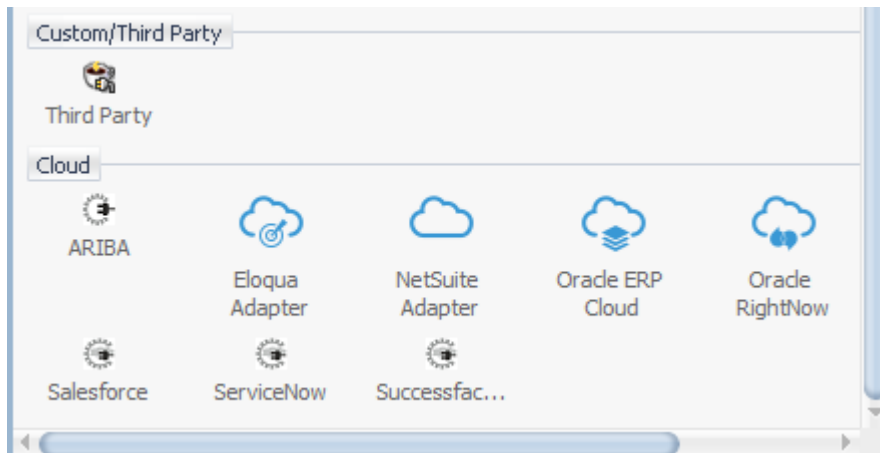
3. Drag the adapter to the appropriate swimlane:

    c) 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 ServiceNow Adapter Trigger Applications Properties

        • Configuring ServiceNow Adapter Trigger Fields Properties

        • Configuring ServiceNow Adapter Trigger Conditions Properties

        • Reviewing Configuration Values on the Summary Page

    d) 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 ServiceNow 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.

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Configuring ServiceNow Adapter Properties

The Service Adapter enables you to create integrations with a ServiceNow application.

This chapter consists of the following topics:

- Configuring Basic Information Properties
- Configuring Oracle Cloud Adapter Connection and CSF Key Properties
- Configuring ServiceNow Adapter Trigger Applications Properties
- Configuring ServiceNow Adapter Trigger Fields Properties
- Configuring ServiceNow Adapter Trigger Conditions Properties
- Configuring ServiceNow Target Operation Properties
- Configuring ServiceNow Adapter Invoke Extended Query Parameters
- Reviewing Configuration Values on the Summary Page

Configuring Basic Information Properties

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

This section consists of the following 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 trigger (source) or invoke (target) area 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 Cloud Adapter Connection and CSF Key Properties

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

This section consists of the following 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 ServiceNow Adapter, no WSDL is required but you need to provide the ServiceNow's instance URL.

- 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
ServiceNow instance name	**Specify the ServiceNow instance name i.e. ServiceNow url, for example** `https://` *`host_name`*`.service- now.com/`
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

- User name, password and re-enter 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 ServiceNow 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.*
User Name	Enter the user name for connecting to your application (ServiceNow Cloud User Name). Your administrator provides you with user credentials.
Password	Enter the password for connecting to your application. (ServiceNow Cloud Password)
Re-enter Password	Re-enter the same password a second time (ServiceNow Cloud Password).

Configuring ServiceNow Adapter Trigger Applications Properties

Select the application and module for which you want to received notifications

This section consists of the following topics:

- What You Can Do from the ServiceNow Adapter Applications Page
- What You See on the ServiceNow Adapter Applications Page

What You Can Do from the ServiceNow Adapter Applications Page

Use the configuration page to select an application and module for which you want receive notifications.

What You See on the ServiceNow Adapter Applications Page

The following table describes the key information on the ServiceNow Adapter Applications page.

Element	Description
Select Application	Use the scrolling list to select an application for which you want to receive notifications when it is inserted, updated, or deleted.
Select Module	Use the scrolling list to select a module from the application you previously selected.
Filter by Application Name	Type the initial letters to filter the display of applications.
Filter by Module Name	Type the initial letters to filter the display of modules.

Configuring ServiceNow Adapter Trigger Fields Properties

Enter the ServiceNow Adapter trigger format definition parameters.

This section consists of the following topics:

- What You Can Do from the ServiceNow Adapter Fields Page
- What You See on the ServiceNow Adapter Fields Page

What You Can Do from the ServiceNow Adapter Fields Page

Use the Fields page to specify the fields for which you want notification when they are inserted, updated, or deleted.

What You See on the ServiceNow Adapter Fields Page

The following table describes the key information on the ServiceNow Adapter Fields page.

Element	Description
Type field name to filter	Type the initial letters of the field name to filter the display of names in the list. Use the dropdown menu to narrow or widen **the list of fields:** • ALL — Shows all of the available fields • CUSTOM — Shows only the custom fields • STANDARD — Shows only the standard fields
Available Fields	Use the scrolling list to select a list of fields for which you want to receive notifications when it is inserted, updated, or deleted. These are fields contained in the application and module you selected on the Configurations page. The fields are moved to the **Selected Fields** list as you select them. You can double-click on a field name or use the arrow buttons to move the field to the **Selected Fields** list.
Selected Fields	The list of fields you have selected.

Configuring ServiceNow Adapter Trigger Conditions Properties

Use this page to select actions that trigger a notification when they are performed on the selected fields. You can also set condition statements that govern the conditions under which the notifications are triggered.

This section consists of the following topics:

- What You Can Do from the ServiceNow Adapter Conditions Page

- What You See on the ServiceNow Adapter Conditions Page

What You Can Do from the ServiceNow Adapter Conditions Page

You can use the ServiceNow Adapter Conditions page to create complex condition statements to notify you when the selected fields are inserted, updated or deleted.

What You See on the ServiceNow Adapter Conditions Page

The following table describes the key information on the ServiceNow Adapter Conditions page.

Element	Description

Receive notifications when asset gets:
    •   **Inserted**
    •   **Updated**
    •   **Deleted**
	Select one of the listed events (inserted, updated, deleted) that will trigger a notification when it is performed on the selected application, module or field.

Field conditions	Use this part of the page to construct statements that govern the conditions under which the notifications are triggered. Click the checkbox to activate the condition control.

Configuring ServiceNow Target Operation Properties

Enter the ServiceNow target operation values for your integration.

This section consists of the following topics:

- What You Can Do from the ServiceNow Adapter Target Operation Page
- What You See on the ServiceNow Adapter Target Operation Page

What You Can Do from the ServiceNow Target Operation Page

You can select an application and module on which to perform an operation. Then select the operation to perform in the application.

What You See on the ServiceNow Target Operation Page

The following table describes the key information on the ServiceNow Adapter Operations page.

Element	Description
Select Application	Select the ServiceNow application.
Select Module	Select the ServiceNow module on which you want to perform the operation
Filter by Application Name	Type the initial letters to filter the display of applications
Filter by Module Name	Type the initial letters to filter the display of module
Select an Operation	Select one of the following operations to perform in the ServiceNow application from the dropdown menu: • Aggregate — Query a table using an aggregate function like SUM, COUNT, MIN, MAX, AVG • Delete — Delete one or more record from the selected table. • Get — Query the selected table by example values and return the matching records and their fields.

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	• Insert — Create a new record for the selected table
	• Update — Update an existing record in the selected table, identified by the mandatory sys_id field.
Get keys (Displayed only if the Get operation is selected)	If this checkbox is checked, the Get operation returns all matching records and their fields.
Extended Query Parameters (Displayed only if the Get operation is selected)	Invokes the Extended Query Parameters page. Use this page to configure event criteria and extended query parameters used to filter the returned results. See "Configuring ServiceNow Adapter Invoke Extended Query Parameters" for a description.
Test Get Operation (Displayed only if the Get operation is selected)	Test Get Operation is enabled when the user selects the Get operation. Enables you to test the operation based on the parameters you selected.

Configuring ServiceNow Adapter Extended Query Parameters

Enter the ServiceNow Adapter extended query parameter values for your integration.

Note: This page is invoked by clicking the **Extended Query Parameters** button on the Operations page.

This section consists of the following topics:

What You Can Do from the ServiceNow Adapter Extended Query Parameters Page

You can specify the following values on the ServiceNow Adapter Extended Query Parameters page.

- Specify the extended query parameters.

- Select the fields to include in the query.

What You See on the ServiceNow Adapter Extended Query Parameters Page

The following table describes the key information on the ServiceNow Adapter Extended Query Parameters page. For example, if you selected **Incident** as the table in which to query records and **GET** as the operation to perform on the table in ServiceNow, you may select a number from the **Order by** dropdown list in the **Extended Query Parameters** section and select **short_description** in the **Include Fields** section.

Element	Description
Extended Query Parameter	Select the extended query parameters to use from the following list: • **Order By** — Uses the specified field to order the returned results. • **Order By desc** — Uses the specified field to order the returned results in descending order. • **First row** — Offsets the results by this number of records from the beginning of the set. When used with **Last row**, it has the effect of querying for a window of results. The results include the first row number. • **Last row** — Limits the results by this number of records from the beginning of the set or the start row values when specified. When used with **First row**, it has the effect of querying for a window of results. Returns fewer results than the last row number and does not include the last row. • **Limit** — Limits the number of records returned. • **Use view** — Specifies the name of a form view that is used to limit and expand the returned results. When the form view contains deeply referenced fields (for example, `caller_id.email`), this field is also returned in the result.
Include Fields	Select the fields to include.
Filter By Field Name	Type the initial letters of the field name to filter the display of names in the list.
Available	Displays the fields available to select from the module.
Selected	Displays the selected fields.

Encoded query	Build a custom query. For example:
	
	 `Incident number is INC0022759 AND Active is true`
	
	 `OR`
	
	 `Incident number is INC0022756 AND Active is false`

Reviewing Configuration Values on the Summary Page

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

This section consists of the following 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 adapter after you have completed your configuration.

- View the configuration details you defined for the source or target adapter. For example, if you have defined an inbound source adapter with a request business object and immediate response business object, specific details about this configuration are displayed on the Summary page.

  Note: In case of inbound source adapter, **Next Steps** will be displayed to guide the user about the post-deployment steps 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 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 or click **Back**.

7

Managing Applications

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

This chapter consists of the following sections:

- Post Deployment Steps of Inbound Adapter
- Managing the Application in Oracle Enterprise Manager Fusion Middleware Control
- Testing Oracle Service Bus Projects from Oracle Service Bus Console

Post Deployment Steps of Inbound Adapter

After completing the development of the Integration flow, you need to carry out the following tasks:

1. Activate the Integration flow.
2. Log in to the ServiceNow instance with valid credentials.
3. Search for 'Business Rules' in quick search and select 'Business Rules'.
4. Search for the Business Rule starting with the name **ORA_** and click it.
5. Locate the script box and enter your WebLogic credentials between quotes.
6. Click the update button on the same page.

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.

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