

Oracle® Cloud

Using the Slack Adapter with Oracle Integration Generation 2



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Primary Author: Oracle Corporation

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Preface

This guide describes how to configure this adapter as a connection in an integration in Oracle Integration.



Note:

The use of this adapter may differ depending on the features you have, or whether your instance was provisioned using Standard or Enterprise edition. These differences are noted throughout this guide.

Topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Diversity and Inclusion](#)
- [Related Resources](#)
- [Conventions](#)

Audience

This guide is intended for developers who want to use this adapter in integrations in Oracle Integration.

Documentation Accessibility

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

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Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and

partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

See these Oracle resources:

- Oracle Cloud
<http://cloud.oracle.com>
- *Using Integrations in Oracle Integration Generation 2*
- *Using the Oracle Mapper with Oracle Integration Generation 2*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Understand the Slack Adapter

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

Topics:

- [Slack Adapter Capabilities](#)
- [Slack Adapter Restrictions](#)
- [What Application Version Is Supported?](#)
- [Workflow to Create and Add a Slack Adapter Connection to an Integration](#)



Note:

There are overall service limits for Oracle Integration. A service limit is the quota or allowance set on a resource. See [Service Limits](#).

Slack Adapter Capabilities

Slack is a chat and messaging cloud service for the enterprise. The Slack Adapter is one of many predefined adapters included with Oracle Integration. You can configure the Slack Adapter as a connection, and then create an integration with Slack.

Slack is a collaboration hub that helps you and your team work together seamlessly. In Slack, team members send messages and share files in channels. You can create channels for teams, projects, office locations, or anything else that's relevant to your organization. You can make channels private for those conversations that shouldn't be open to all members, or you can use shared channels to collaborate with an organization outside your own.

The Slack Adapter offers outbound integration with Slack on the Oracle Integration platform. You can create outbound integrations that invoke the Slack application so you can manage channels, invite users, get profile information, manage chat and groups, upload files, and perform search operations.

Slack Adapter Restrictions

Note the following Slack Adapter restrictions.

Slack bot functionality is not currently supported in the Slack Adapter.

**Note:**

There are overall service limits for Oracle Integration. A service limit is the quota or allowance set on a resource. See [Service Limits](#).

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the [Connectivity Certification Matrix](#).

See [Connectivity Certification Matrix](#).

Workflow to Create and Add a Slack Adapter Connection to 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.

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

Step	Description	More Information
1	Access Oracle Integration.	Go to https://instance_URL/ic/home/
2	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.	Create a Slack Adapter Connection
3	Create the integration. When you do this, you add trigger (source) and invoke (target) connections to the integration.	Create Integrations in <i>Using Integrations in Oracle Integration Generation 2</i> and Add the Slack Adapter Connection to an Integration
4	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data in <i>Using Integrations in Oracle Integration Generation 2</i>
5	(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).	Manage Lookups in <i>Using Integrations in Oracle Integration Generation 2</i>
6	Activate the integration.	Activate Integrations in <i>Using Integrations in Oracle Integration Generation 2</i>
7	Monitor the integration on the dashboard.	Monitor Integrations in <i>Using Integrations in Oracle Integration Generation 2</i>

Step	Description	More Information
8	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Manage Business Identifiers for Tracking Fields in Messages in <i>Using Integrations in Oracle Integration Generation 2</i>
9	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in <i>Using Integrations in Oracle Integration Generation 2</i>

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Create a Slack Adapter Connection

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

Topics:

- [Prerequisites for Creating a Connection](#)
- [Create a Connection](#)

Prerequisites for Creating a Connection

Before you can create a connection with the Slack Adapter, you must satisfy the following prerequisites.

- [Sign Up for a Slack Developer Account](#)
- [Create an OAuth Application](#)
- [Get Your Client ID and Secret](#)

Sign Up for a Slack Developer Account

To integrate, extend, and build applications with the Slack Platform and Oracle Integration, you must have a Slack developer account.

To create an account, visit the Slack Developer website (<https://developer.slack.com>), click **Sign Up**, and follow the on-screen instructions.

Don't forget to review the terms and documentation after you get your account.

Create an OAuth Application

To obtain the proper access token to execute the Slack API securely, the Slack Adapter uses the Slack OAuth 2.0 authentication and authorization framework.

For information about OAuth 2.0 supported by Slack, see the documentation on the Slack website:

<https://api.slack.com/docs/oauth>

To create an OAuth application on the Slack platform and enable this authentication route:

1. Sign in to the Slack Developer console at <https://api.slack.com>.
2. In the Slack API title bar, click **Your Apps** to view the apps that you have created.
3. Click **Create New App**.
 - a. Enter a name for your application.

2. Open the OAuth application you created.
3. In the navigation pane in the Slack API, select **Basic Information**.
4. Scroll to the **App Credentials** section.
5. Copy the values for your client ID and client secret. Click **Show** to see the client secret before selecting it for copy. You'll need to enter the client ID and client secret in the Credentials dialog when you configure security for your connection in Oracle Integration.

Create a Connection

Before you can build an integration, you have to create the connections to the applications with which you want to share data.


To create a connection in Oracle Integration:

1. In the left navigation pane, click **Home > Integrations > Connections**.
2. Click **Create**.

Note:

You can also create a connection in the integration canvas of:

- An orchestrated integration (See Define Inbound Triggers and Outbound Invokes.)
- A basic routing integration (See Add a Trigger (Source) Connection.)

3. In the Create Connection — Select Adapter dialog, select the adapter to use for this connection. To find the adapter, scroll through the list, or enter a partial or full name in the **Search** field and click  **Search**.
4. In the Create Connection dialog, enter the information that describes this connection.
 - a. 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, don't include blank spaces (for example, SALES OPPORTUNITY).
 - b. Enter optional keywords (tags). You can search on the connection keywords on the Connections page.
 - c. Select the role (direction) in which to use this connection (trigger, invoke, or both). Only the roles supported by the 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, you'll get an error when you try to drag the adapter into the section you didn't select. For example, let's say you configure a connection for the Oracle Service Cloud (RightNow) Adapter as only an **invoke**. Dragging the adapter to a **trigger** section in the integration produces an error.
 - d. Enter an optional description of the connection.
5. Click **Create**.

Your connection is created. You're now ready to configure the connection details, such as connection properties, security policies, connection login credentials, and (for certain connections) agent group.

Configure Connection Security and Access

Your application (or endpoint) requires that users and services provide security credentials for access. When creating a Slack connection, you must specify the login credentials and grant access to the Slack application.

1. Go to the **Security** section.
 - a. In the **Client ID** and **Client Secret** fields, enter the values you recorded when you created an OAuth application with Slack.com. See [Prerequisites for Creating a Connection](#).
 - b. In the **Scope** field, enter the list of authorization permissions for the target application. The Slack Adapter supports the following scopes:

 **Note:**

The scopes available for selection correspond to the operations supported by the Slack Adapter.

- channels:read
- channels:write
- chat:write:user
- channels:history
- files:read
- search:read
- stars:read
- users:read

See the documentation on the Slack.com website for details about these scopes.

2. Conduct the authorization code flow and grant access.
 - a. Click **Provide Consent**.
 - b. In the Authentication Required dialog, click **OK**.
 - c. In the Log in to grant access to Slack page, click **Authorize**.
 - d. Click **Grant access to Slack**.

A message confirms that Oracle Integration successfully conducted the authorization and procured the access token. Access to the Slack application is allowed.

Your final step in creating a connection is to test the connection. You need to verify that the login credentials are valid and that you can access the Slack application successfully.

Test the Connection

Test your connection to ensure that it's configured successfully.

1. In the page title bar, click **Test**. What happens next depends on whether your connection uses a Web Services Description Language (WSDL) file.

If Your Connection...	Then...
Doesn't use a WSDL	The test starts automatically and validates the inputs you provided for the connection.
Uses a WSDL	A dialog prompts you to select the type of connection testing to perform: <ul style="list-style-type: none">• Validate and Test: Performs a full validation of the WSDL, including processing of the imported schemas and WSDLs. Complete validation can take several minutes depending on the number of imported schemas and WSDLs. No requests are sent to the operations exposed in the WSDL.• Test: Connects to the WSDL URL and performs a syntax check on the WSDL. No requests are sent to the operations exposed in the WSDL.

2. Wait for a message about the results of the connection test.
 - If the test was successful, then the connection is configured properly.
 - If the test failed, then edit the configuration details you entered. Check for typos, verify URLs and credentials, and download the diagnostic logs for additional details. Continue to test until the connection is successful.
3. When complete, click **Save**.

3

Add the Slack Adapter Connection to an Integration

When you drag the Slack Adapter into the invoke area of an integration, the Adapter Endpoint Configuration Wizard is invoked. This wizard guides you through configuration of the Slack Adapter endpoint properties.

The following sections describe the wizard pages that guide you through configuration of the Slack Adapter as an invoke in an integration.

Topics:

- [Basic Info Page](#)
- [Invoke Operations Page](#)
- [Request Parameters Page](#)
- [Summary Page](#)

Basic Info Page

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

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 hyphens in the name. You can't include the following characters: <ul style="list-style-type: none">• No blank spaces (for example, My Inbound Connection)• No special characters (for example, #;83& or righ(t)now4) except underscores and hyphens• No multibyte characters
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example: <code>This connection receives an inbound request to synchronize account information with the cloud application.</code>

Invoke Operations Page

The Slack Adapter supports the following invoke (outbound) operations. Note that some operations require a parameter. You specify the parameters, if any, on the next page (Request Parameters page) in the Adapter Endpoint Configuration Wizard.

Also, the scope required for each operation to work successfully must have been defined when you created the connection. See [Configure Connection Security and Access](#).

See the documentation on the Slack.com website for details about these scopes.

Element	Description	Parameter	Required Scope
Create Channel	Creates a channel in Slack.	None	channels:write
Get Channel	Gets information about a Slack channel.	channel	channels:read
Invite User To Channel	Invites a user to a Slack channel.	None	channels:write
Remove User From Channel	Removes a user from a Slack channel.	None	channels:write
List Channels	Lists all channels that belong to a Slack team.	None	channels:read
Send Message	Sends a message to a Slack channel.	None	chat:write:user
Schedule Message	Schedules a message to be sent to a Slack channel.	None	chat:write:user
List Scheduled Messages	Returns a list of scheduled messages.	None	No scope required
Delete Message	Deletes a message.	None	chat:write:user
Create File	Updates or creates a file.	None	files:write files:write:user
Get File Info	Gets information about a team file.	file	files:read
Enable File Access	Enables a file for public/external sharing.	None	files:write files:write:user
Revoke File Access	Revokes public/external sharing access for a file.	None	files:write files:write:user
List Files	Lists and filters team files.	types channel user	files:read
Create Private Channel	Creates a private Slack channel.	None	channels:write
Get Private Channel	Gets information about a private Slack channel.	channel	channels:read
Invite User To Private Channel	Invites a user to a private Slack channel.	None	channels:write
Remove User From Private Channel	Removes a user from a private Slack channel.	None	channels:write
List Private Channels	Lists private Slack channels that the calling user has access to.	None	channels:read
Get User Presence	Gets user presence information.	user	users:read
Get User Identity	Gets a user's identity.	None	identity.basic
Get User Info	Gets information about a user.	user	users:read
Get User By Email	Finds a user with an email address.	email	users:read.email
List Private Channel Users	Lists all users in a Slack team.	None	users:read
Search Files	Searches for files matching a query.	query	search:read
Search Messages	Searches for messages matching a query.	query	search:read

Request Parameters Page

If you selected an invoke operation that requires a parameter, then the Adapter Endpoint Configuration Wizard displays the Request Parameters page.

Enter any required parameter values for the operation you selected. See [Invoke Operations Page](#).

Summary Page

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

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

4

Implement Common Patterns Using the Slack Adapter

You can use the Slack Adapter to implement the following common patterns.

Topics:

- [Write Error Notifications to a Channel with the Slack Adapter](#)

Write Error Notifications to a Channel with the Slack Adapter

This use case describes how to use the Slack Adapter for notifications. A scheduled integration that is supposed to read files from an FTP server fails. A global fault is used and the Slack Adapter connection writes the error notification to a channel.

See this [blog](#).