

# Oracle® Cloud

## Using the Twilio Adapter with Oracle Integration Generation 2



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# Contents

## Preface

---

Audience	iv
Documentation Accessibility	iv
Diversity and Inclusion	iv
Related Resources	v
Conventions	v

## 1 Understand the Twilio Adapter

---

Twilio Adapter Capabilities	1-1
What Application Version Is Supported?	1-1
Twilio Adapter Use Cases	1-1
Workflow to Create and Add a Twilio Adapter Connection to an Integration	1-2

## 2 Create a Twilio Adapter Connection

---

Prerequisites for Creating a Connection	2-1
Create a Twilio User Account	2-1
Create a Connection	2-2
Configure Connection Security	2-3
Test the Connection	2-3
Upload an SSL Certificate	2-3

## 3 Add the Twilio Adapter Connection to an Integration

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Basic Info Page	3-1
Invoke Operations Page	3-1
Summary Page	3-2

# 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

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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
<b>boldface</b>	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 Twilio Adapter

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

### Topics:

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



### Note:

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

## Twilio Adapter Capabilities

Use the Twilio Adapter to create a Twilio integration.

The Twilio Adapter provides the following benefits:

- Sends an SMS or MMS message.
- Returns all inbound and outbound SMS messages.

The Twilio Adapter is one of many predefined adapters included with Oracle Integration. You can configure Twilio Adapter as an invoke connection in an integration in Oracle Integration.

## 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](#).

## Twilio Adapter Use Cases

This use case describes how the Twilio Adapter is used to allow customers to contact a vendor without exposing their permanent phone number.

- The customer makes an online service request for a home repair.
- The Twilio adapter sends the service request to the service provider.

- The service provider searches its vendor database to locate the best qualified vendor for the customer service request.
- The service provider communicates with the vendor using a Twilio-powered SMS solution and confirms the appointment, credit card payment, and insurance.
- The service provider uses the Twilio adapter to inform the customer that a vendor has been selected and provides the appointment information.
- The customer and vendor contact each other to exchange addresses and particulars about the job without exposing their permanent phone number or other sensitive data.

## Workflow to Create and Add a Twilio 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.

Step	Description	More Information
1	Complete the prerequisite tasks.	<a href="#">Prerequisites for Creating a Connection</a>
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.	<a href="#">Create a Twilio Adapter Connection</a>
3	Create the integration. When you do this, you add trigger and invoke connections to the integration.	Create Integrations and <a href="#">Add the Twilio Adapter Connection to an Integration</a>
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.	Manage 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>
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>

# 2

## Create a Twilio 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](#)
- [Upload an SSL Certificate](#)

## Prerequisites for Creating a Connection

These are the prerequisites for creating a Twilio Adapter connection:

- A Twilio security identifier (SID) and authorization token. These are provided when you create your Twilio user account. See [Create a Twilio User Account](#).
- A trusted Twilio public certificate. Typically, the certificate is included with Oracle Integration. If you cannot locate the Twilio public certificate, download it from <https://api.twilio.com/2010-04-01/Accounts>. See [Upload an SSL Certificate](#).

## Create a Twilio User Account

A Twilio user account is required to create a Twilio Adapter connection.

To create the Twilio user account:

1. Open an Internet browser and browse to <https://www.twilio.com/>.
2. Click **Sign Up**.
3. Complete the **First Name**, **Last Name**, **Email**, **Choose a password**, and **Password, again** fields.
4. Select a product in the **What is the first product you plan to use?** list.
5. Selection an application type in the **What are you building?** list.
6. Select a language in the **Choose your language** list.
7. Click **Get Started**.
8. Complete the text or telephone verification process.
9. Click your user name in the upper corner of the screen and select **Account**.
10. Copy or record the values in the **AccountSID** and **AuthToken** fields. These values are required to create the connection in Oracle Integration.

Click the padlock icon to reveal the hidden AuthToken number.



## 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

Configure security for your Twilio Adapter connection by selecting the security policy and security token.

1. Create a connection. See [Create a Twilio Adapter Connection](#).
2. Go to the **Security** section.

The **Security Policy** field shows **Twilio Security Policy**. This value cannot be changed.

3. Complete these field using the information you recorded when completing the prerequisites. See [Prerequisites for Creating a Connection](#):
  - a. In the **AccountSID** field, enter the Twillio security identifier (SID).
  - b. In the **AuthToken** field, enter the Twillio authorization token.
  - c. In the **Confirm AuthToken** field, enter the Twillio authorization token.

## 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"> <li>• <b>Validate and Test:</b> 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.</li> <li>• <b>Test:</b> Connects to the WSDL URL and performs a syntax check on the WSDL. No requests are sent to the operations exposed in the WSDL.</li> </ul>

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**.

## Upload 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, an exception is thrown. In that case, you must upload the appropriate certificate. A certificate enables Oracle Integration

to connect with external services. If the external endpoint requires a specific certificate, request the certificate and then upload it into Oracle Integration.

To upload an SSL certificate:

1. In the left navigation pane, click **Home > Settings > Certificates**. All certificates currently uploaded to the trust store are displayed in the Certificates dialog. The



link enables you to filter by name, certificate expiration date, status, type, category, and installation method (user-installed or system-installed). Certificates installed by the system cannot be deleted.

Certificates <span style="float: right;">Upload</span>			
Q 6 Certificates			
Installed By: User X			
Name	Type	Category	Status
mykey3 <span style="color: blue;">EXPIRES IN 1 MONTH</span>	X.509	Identity	Configured
mykey2 <span style="color: red;">EXPIRED</span>	X.509	Identity	Configured
recert1586867745048 <span style="color: blue;">EXPIRES IN 4 YEARS</span>	X.509	Trust	Configured
recert1586863610817 <span style="color: blue;">EXPIRES IN 4 YEARS</span>	X.509	Trust	Configured
recert1586857607511 <span style="color: blue;">EXPIRES IN 4 YEARS</span>	X.509	Trust	Configured
recert1586857416600 <span style="color: blue;">EXPIRES IN 4 YEARS</span>	X.509	Trust	Configured

2. Click **Upload** at the top of the page. The Upload Certificate dialog box is displayed.
3. Enter an alias name and optional description.
4. In the **Type** field, select the certificate type. Each certificate type enables Oracle Integration to connect with external services.
  - **X.509 (SSL transport)**
  - **SAML (Authentication & Authorization)**
  - **PGP (Encryption & Decryption)**

### X.509 (SSL transport)

1. Select a certificate category.
  - a. **Trust:** Use this option to upload a trust certificate.
    - i. Click **Browse**, then select the trust file (for example, `.cer` or `.crt`) to upload.
  - b. **Identity:** Use this option to upload a certificate for two-way SSL communication.
    - i. Click **Browse**, then select the keystore file (`.jks`) to upload.
    - ii. Enter the comma-separated list of passwords corresponding to key aliases.

 **Note:**

When an identity certificate file (JKS) contains more than one private key, all the private keys must have the same password. If the private keys are protected with different passwords, the private keys cannot be extracted from the keystore.

- iii. Enter the password of the keystore being imported.
- c. Click **Upload**.

**SAML (Authentication & Authorization)**

1. Note that **Message Protection** is automatically selected as the only available certificate category and cannot be deselected. Use this option to upload a keystore certificate with SAML token support. Create, read, update, and delete (CRUD) operations are supported with this type of certificate.
2. Click **Browse**, then select the certificate file (.cer or .crt) to upload.
3. Click **Upload**.

**PGP (Encryption & Decryption)**

1. Select a certificate category. Pretty Good Privacy (PGP) provides cryptographic privacy and authentication for communication. PGP is used for signing, encrypting, and decrypting files. You can select the private key to use for encryption or decryption when configuring the stage file action.
  - a. **Private:** Uses a private key of the target location to decrypt the file.
    - i. Click **Browse**, then select the PGP file to upload.
    - ii. Enter the PGP private key password.
  - b. **Public:** Uses a public key of the target location to encrypt the file.
    - i. Click **Browse**, then select the PGP file to upload.
    - ii. In the **ASCII-Armor Encryption Format** field, select **Yes** or **No**. **Yes** shows the format of the encrypted message in ASCII armor. ASCII armor is a binary-to-textual encoding converter. ASCII armor formats encrypted messaging in ASCII. This enables messages to be sent in a standard messaging format. This selection impacts the visibility of message content. **No** causes the message to be sent in binary format.
    - iii. From the **Cipher Algorithm** list, select the algorithm to use. Symmetric-key algorithms for cryptography use the same cryptographic keys for both encryption of plain text and decryption of cipher text.
- c. Click **Upload**.

# 3

## Add the Twilio Adapter Connection to an Integration

When you drag the Twilio Adapter into the trigger or invoke area of an integration, the Adapter Endpoint Configuration Wizard appears. This wizard guides you through the configuration of the Twilio Adapter endpoint properties.

These topics describe the wizard pages that guide you through configuration of the Twilio Adapter as a trigger or invoke in an integration.

**Topics:**

- [Basic Info Page](#)
- [Invoke Operations 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
<b>What do you want to call your endpoint?</b>	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"><li>• No blank spaces (for example, My Inbound Connection)</li><li>• No special characters (for example, #;83&amp; or righ(t)now4) except underscores and hyphens</li><li>• No multibyte characters</li></ul>
<b>What does this endpoint do?</b>	Enter an optional description of the connection's responsibilities. For example: <pre>This connection receives an inbound request to synchronize account information with the cloud application.</pre>

### Invoke Operations Page

Enter the Twilio Adapter source file read configuration values for your integration.

The table provides definitions for the Twilio Adapter API operations that can be performed on the target. These operations are listed on the Twilio Adapter Operations page.

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Operation	Description
Send SMS or MMS	Sends an SMS or MMS message.
Get all recent SMSs	Returns all inbound and outbound SMS messages.

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Element	Description
Select Operation	Selects the operation that you want Oracle Integration to invoke when running an integration that uses this endpoint.

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## Summary Page

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

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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 <b>Back</b>.</p> <p>To cancel your configuration details, click <b>Cancel</b>.</p>

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