

Oracle® Cloud

Using the Facebook Adapter with Oracle Integration 3



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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 <https://www.oracle.com/corporate/accessibility/>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <https://support.oracle.com/portal/> or visit [Oracle Accessibility Learning and Support](#) if you are hearing impaired.

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 at <http://cloud.oracle.com>
- *Using Integrations in Oracle Integration 3*
- *Using the Oracle Mapper with Oracle Integration 3*
- Oracle Integration documentation on the Oracle Help Center.

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.
<code>monospace</code>	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 Facebook Adapter

Review the following conceptual topics to learn about the Facebook 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:

- [Facebook Adapter Capabilities](#)
- [What Application Version Is Supported?](#)
- [About Facebook Adapter Use Cases](#)
- [Workflow to Create and Add a Facebook 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](#).

Facebook Adapter Capabilities

The Facebook Adapter enables you to create an integration with a Facebook application.

Facebook is an online social networking service. You can create a user profile, add other users as friends, exchange messages, post status updates, post photos, share videos, and receive notifications when others update their profiles. You can also join special interest user groups and categorize friends into categories such as people from work or close friends.

The Facebook Adapter is one of many predefined adapters included with Oracle Integration. You can configure the Facebook Adapter as a 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](#).

About Facebook Adapter Use Cases

The Facebook Adapter can be used in many different scenarios. For example, an item created in PIM results in a posting done to a page. The Facebook Adapter can subscribe to the created item or an updated event, and can update the status on a Facebook page.

Workflow to Create and Add a Facebook 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	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 Facebook Adapter Connection
2	Create the integration. When you do this, you add trigger and invoke connections to the integration.	Understand Integration Creation and Best Practices and Add the Facebook Adapter Connection to an Integration
3	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data in <i>Using Integrations in Oracle Integration 3</i>
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).	Manage Lookups in <i>Using Integrations in Oracle Integration 3</i>
5	Activate the integration.	Manage Integrations in <i>Using Integrations in Oracle Integration 3</i>
6	Monitor the integration on the dashboard.	Monitor Integrations During Runtime in <i>Using Integrations in Oracle Integration 3</i>
7	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Track Integration Instances in <i>Using Integrations in Oracle Integration 3</i>
8	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in <i>Using Integrations in Oracle Integration 3</i>

2

Create a Facebook 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 a Certificate to Connect with External Services](#)

Prerequisites for Creating a Connection

To use the Facebook Adapter, you must have access to the Facebook Graph API for your integration. To access the Graph API, you must create a Facebook application.



Note:

Create a separate Facebook application for every Oracle Integration instance.



Note:

Before creating a Facebook connection, you must upload the trusted Facebook public certificate to Oracle Integration. The Facebook public certificate can be downloaded from <https://developer.facebook.com>.

1. In your browser, click the **lock** icon to the left of the <https://www.developer.facebook.com> URL.
2. Select **Secure Connection > More Information** to access and download the certificate.
3. Rename the `FacebookCertificate.txt` file extension to `.cer`.
4. To upload the certificate, see [Upload a Certificate to Connect with External Services](#).

To create a Facebook application:

1. Go to <https://developers.facebook.com>.
2. Log in with your Facebook credentials or create an account if you do not currently have one.
 - a. Under **News**, click **Meta for Developers page**.
 - b. Click **Create new account**.

- c. Follow the instructions to create an account.
3. Click **Get Started**.

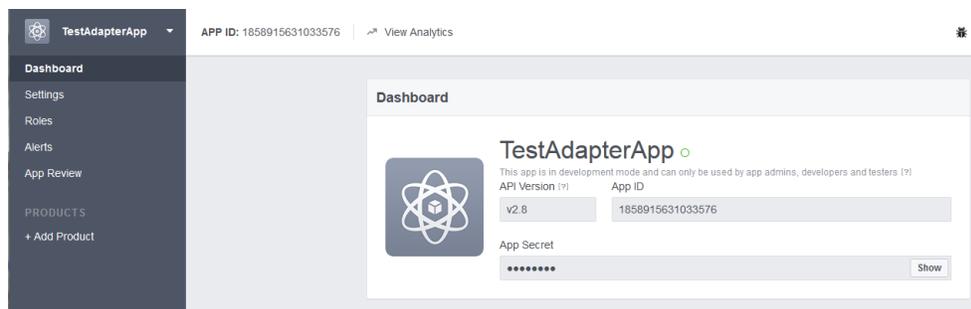
<https://developers.facebook.com/docs/development/create-an-app>

4. On the new page to which you are redirected, click **Create App** to create your first Facebook application or, if you previously created an application, click **My Apps > Add a New App**.

The Create a New App ID dialog is displayed.

- a. Provide a name for the application.
 - b. Provide a contact email address.
 - c. Select a category for your application.
 - d. Click **Create App ID**.
 - e. Enter the requested value when prompted in the Security Check dialog and click **Submit**.

You are redirected to the Facebook developer Dashboard page. The application ID and application secret are displayed.



5. Copy and paste these values because you need them later when creating a Facebook Adapter connection. The application ID represents the client ID and the application secret represents the client secret that you must specify when creating the connection. These keys are sensitive data, and must be kept secret.

You also need to configure your Facebook application with the callback URL.

6. Perform the following steps:
 - a. Click the **Add Product** tab on the left side.
 - b. In the **Facebook Login** section, click **Get Started**.
The Client OAuth Settings page is displayed.
 - c. Under this section, find the **Valid OAuth redirect URIs** input field.
 - d. Enter the callback URL using the following format, then click **Save Changes**:

 **Note:**

If you don't know the following information, check with your administrator:

- If your instance is new or upgraded from Oracle Integration Generation 2 to Oracle Integration 3.
- The complete instance URL with the region included (required for new instances).

For Connections...	Include the Region as Part of the Redirect URL?	Example of Redirect URL to Specify...
Created on new Oracle Integration 3 instances	Yes.	<code>https:// OIC_instance_URL.region.ocp.oraclecloud.com/icsapis/agent/oauth/callback</code>
Created on instances upgraded from Oracle Integration Generation 2 to Oracle Integration 3	No. This applies to both: <ul style="list-style-type: none"> • New connections created after the upgrade • Existing connections that were part of the upgrade 	<code>https:// OIC_instance_URL.ocp.oraclecloud.com/ icsapis/agent/oauth/callback</code>

Create a Connection

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

To create a connection in Oracle Integration:

1. In the navigation pane, click **Design**, then **Connections**.
2. Click **Create**.

 **Note:**

You can also create a connection in the integration canvas. See Define Inbound Triggers and Outbound Invokes.

3. In the Create connection panel, 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.
4. Enter the information that describes this connection.

Element	Description
Name	Enter a meaningful name to help others find your connection when they begin to create their own integrations.
Identifier	Automatically displays the name in capital letters that you entered in the Name field. If you modify the identifier name, don't include blank spaces (for example, SALES OPPORTUNITY).
Role	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, assume 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.
Keywords	Enter optional keywords (tags). You can search on the connection keywords on the Connections page.
Description	Enter an optional description of the connection.
Share with other projects	Note: This field only appears if you are creating a connection in a project. Select to make this connection publicly available in other projects. Connection sharing eliminates the need to create and maintain separate connections in different projects. When you configure an adapter connection in a different project, the Use a shared connection field is displayed at the top of the Connections page. If the connection you are configuring matches the same type and role as the publicly available connection, you can select that connection to reference (inherit) its resources. See Add and Share a Connection Across a Project.

5. Click **Create**.

Your connection is created. You're now ready to configure the connection properties, security policies, and (for some connections) access type.

Configure Connection Security

Configure security for your Facebook connection by selecting the security policy and setting login credentials.

1. Go to the **Security** section.
2. In the **Security Policy** field, note that the **Facebook OAuth Authorization Code Credentials** security policy is displayed by default, and cannot be deselected.
3. In the **Client ID** field, enter the client ID created after completing the steps in [Prerequisites for Creating a Connection](#).
4. In the **Client Secret** field, enter the client secret created after completing the steps in [Prerequisites for Creating a Connection](#).
5. In the **Scope** field, enter the following scopes, each separated by a blank space.

```
user_posts publish_actions user_friends
```

6. Click **Provide Consent** to allow consent.

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 adapter connection uses a Web Services Description Language (WSDL) file. Only some adapter connections use WSDLs.

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.

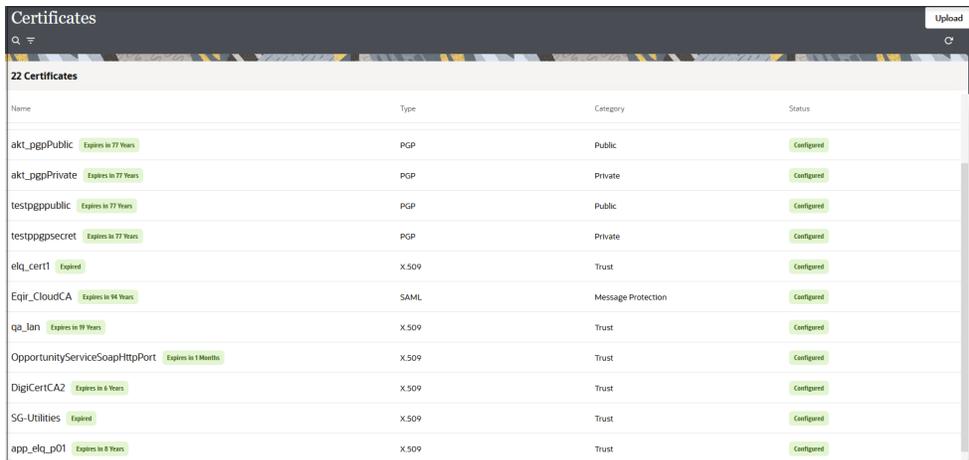
2. Wait for a message about the results of the connection test.
 - If the test was successful, then the connection is configured properly.
 - If the test failed, then edit the configuration details you entered. Check for typos and verify URLs and credentials. Continue to test until the connection is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

Upload a Certificate to Connect with External Services

Certificates allow Oracle Integration to connect with external services. If the external service/endpoint needs a specific certificate, request the certificate and then import it into Oracle Integration.

If you make an SSL connection in which the root certificate does not exist in Oracle Integration, an exception error 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.

1. Sign in to Oracle Integration.
2. In the navigation pane, click **Settings**, then **Certificates**.
All certificates currently uploaded to the trust store are displayed on the Certificates page.
3. Click **Filter**  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.



Name	Type	Category	Status
akt_pgpPublic <small>Expires in 77 Years</small>	PGP	Public	Configured
akt_pgpPrivate <small>Expires in 77 Years</small>	PGP	Private	Configured
testpgppublic <small>Expires in 77 Years</small>	PGP	Public	Configured
testpgppsecret <small>Expires in 77 Years</small>	PGP	Private	Configured
elq_cert1 <small>Expired</small>	X.509	Trust	Configured
Eqir_CloudCA <small>Expires in 94 Years</small>	SAML	Message Protection	Configured
qa_lan <small>Expires in 99 Years</small>	X.509	Trust	Configured
OpportunityServiceSoapHttpPort <small>Expires in 1 Months</small>	X.509	Trust	Configured
DigiCertCA2 <small>Expires in 4 Years</small>	X.509	Trust	Configured
SG-Utilities <small>Expired</small>	X.509	Trust	Configured
app_elq_p01 <small>Expires in 8 Years</small>	X.509	Trust	Configured

4. Click **Upload** at the top of the page.
The Upload certificate panel is displayed.
5. Enter an alias name and optional description.
6. In the **Type** field, select the certificate type. Each certificate type enables Oracle Integration to connect with external services.
 - [Digital Signature](#)
 - [X.509 \(SSL transport\)](#)
 - [SAML \(Authentication & Authorization\)](#)
 - [PGP \(Encryption & Decryption\)](#)
 - [Signing key](#)

Digital Signature

The digital signature security type is typically used with adapters created with the Rapid Adapter Builder. See Learn About the Rapid Adapter Builder in Oracle Integration in *Using the Rapid Adapter Builder with Oracle Integration 3*.

1. Click **Browse** to select the digital certificate. The certificate must be an X509Certificate. This certificate provides inbound RSA signature validation. See Implement Digital Signature Validation (RSA) in *Using the Rapid Adapter Builder with Oracle Integration 3*.
2. Click **Upload**.

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. The following supported cipher algorithms are FIPS-compliant:
 - AES128
 - AES192
 - AES256
 - TDES
- c.** Click **Upload**.

Signing key

A signing key is a secret key used to establish trust between applications. Signing keys are used to sign ID tokens, access tokens, SAML assertions, and more. Using a private signing key, the token is digitally signed and the server verifies the authenticity of the token by using a public signing key. You must upload a signing key to use the OAuth Client Credentials using JWT Client Assertion and OAuth using JWT User Assertion security policies in REST Adapter invoke connections. Only PKCS1- and PKCS8-formatted files are supported.

- 1.** Select **Public** or **Private**.
- 2.** Click **Browse** to upload a key file.

If you selected **Private**, and the private key is encrypted, a field for entering the private signing key password is displayed after key upload is complete.
- 3.** Enter the private signing key password. If the private signing key is not encrypted, you are not required to enter a password.
- 4.** Click **Upload**.

3

Add the Facebook Adapter Connection to an Integration

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

These topics describe the wizard pages that guide you through configuration of the Facebook Adapter as an invoke in an integration. The Facebook Adapter cannot be used as a trigger in an integration.

Topics:

- [Basic Info Page](#)
- [Invoke Operation Selection 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 Operation Selection Page

Select the Facebook API operation.

The following table describes the key information on the Facebook Adapter Operation Selection page.

Element	Description
Select Operation	<p>Select the Facebook API operation to perform:</p> <ul style="list-style-type: none"> • Get User's Home Page Feed • Get All Feed for the Page • Get Posts Published by the Page • Post a Message to a Page • Get Details of the Page • Get TV Shows this Person Likes • Get Social Context of the User • Get User's Friends • Get User's Custom Friend Lists • Post Status Update of the User • Get Mutual Friends with Specified User <p>The Facebook resource URI and template parameter associated with your selected operation are displayed on the Summary page of this wizard.</p> <p>The Facebook REST API documentation is available at the following URL:</p> <p>https://developers.facebook.com/docs/graph-api/reference/v2.5</p>

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 Go back.</p> <p>To cancel your configuration details, click Cancel.</p>