

Oracle® Cloud

Using the Facebook Adapter with Oracle Integration Generation 2



E85507-11
December 2022

The Oracle logo, consisting of the word "ORACLE" in white, uppercase letters, centered within a solid red square.

ORACLE®

Oracle Cloud Using the Facebook Adapter with Oracle Integration Generation 2,

E85507-11

Copyright © 2019, 2022, Oracle and/or its affiliates.

Primary Author: Oracle Corporation

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface

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

1 Understand the Facebook Adapter

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

2 Create a Facebook Adapter Connection

Prerequisites for Creating a Connection	2-1
Create a Connection	2-3
Configure Connection Security	2-4
Test the Connection	2-4
Upload an SSL Certificate	2-5

3 Add the Facebook Adapter Connection to an Integration

Basic Info Page	3-1
Invoke Operation Selection Page	3-1
Summary Page	3-2

4 Troubleshoot the Facebook Adapter

Specify the Port Number with the Authorized Redirect URL	4-1
--	-----

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>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> 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
<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 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](#).

See [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.	Create Integrations 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 Generation 2</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 Generation 2</i>
5	Activate the integration.	Manage Integrations in <i>Using Integrations in Oracle Integration Generation 2</i>
6	Monitor the integration on the dashboard.	Monitor Integrations in <i>Using Integrations in Oracle Integration Generation 2</i>
7	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>
8	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 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 an SSL Certificate](#)

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 an SSL Certificate](#).

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**.

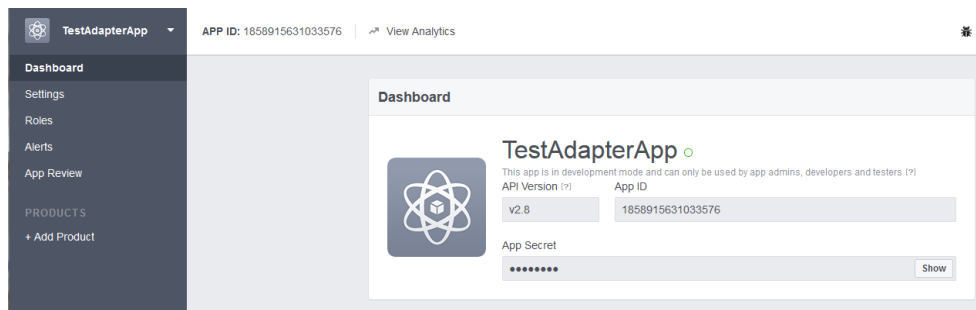
<https://developers.facebook.com/docs/development/create-an-app>

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**:

https://OIC_hostname/icsapis/agent/oauth/callback

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 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 user_likes publish_actions manage_pages
```

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	<p>A dialog prompts you to select the type of connection testing to perform:</p> <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**.

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 Upload			
6 Certificates			
Name	Type	Category	Status
mykey3 EXPIRES IN 1 MONTHS	X.509	Identity	● Configured
mykey2 EXPIRED	X.509	Identity	● Configured
recert1586867745048 EXPIRES IN 4 YEARS	X.509	Trust	● Configured
recert1586863610817 EXPIRES IN 4 YEARS	X.509	Trust	● Configured
recert1586857607511 EXPIRES IN 4 YEARS	X.509	Trust	● Configured
recert1586857416600 EXPIRES IN 4 YEARS	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 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 Back.</p> <p>To cancel your configuration details, click Cancel.</p>

4

Troubleshoot the Facebook Adapter

Review the following topics to learn about troubleshooting issues with the Facebook Adapter.

Topics:

- [Specify the Port Number with the Authorized Redirect URL](#)

Additional integration troubleshooting information is provided. See Troubleshoot Oracle Integration in *Using Integrations in Oracle Integration Generation 2* and the [Oracle Integration Troubleshooting page](#) in the Oracle Help Center.

Specify the Port Number with the Authorized Redirect URL

When configuring the authorized redirect URL, ensure that you specify the port number. For example:

```
https://host:443/icsapis/agent/oauth/callback
```

Not specifying the port number in the URL results in an error saying the application wasn't authorized for the redirect URL.