Oracle® Cloud

Using the Oracle Enterprise Performance Management Cloud Adapter with Oracle Integration Generation 2





Oracle Cloud Using the Oracle Enterprise Performance Management Cloud Adapter with Oracle Integration Generation 2,

E95783-11

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Preface

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



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.
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.



1

Understand the Oracle Enterprise Performance Management Cloud Adapter

Learn about using the Oracle Enterprise Performance Management Cloud Adapter as a connection in integrations and review the typical workflow for integration tasks.

Topics:

- Oracle Enterprise Performance Management Cloud Adapter Capabilities
- What Application Version Is Supported?
- Process Automation Integration Pattern and Use Case
- Event Monitoring Integration Pattern and Use Case
- At a Glance: Workflow to Integrate with Oracle Enterprise Performance Management Cloud



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

Oracle Enterprise Performance Management Cloud Adapter Capabilities

Use the Oracle Enterprise Performance Management Cloud Adapter in an integration to connect Task Manager in Oracle Enterprise Performance Management Cloud to on-premise and cloud applications.

Automate financial close and tax close tasks, and monitor events in cloud and on-premise applications with Task Manager in:

- Oracle Tax Reporting Cloud
- Oracle Financial Consolidation and Close Cloud
- Oracle Planning and Budgeting Cloud

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the Connectivity Certification Matrix.

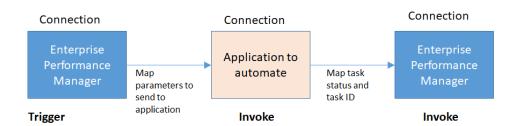
See Connectivity Certification Matrix.

Process Automation Integration Pattern and Use Case

Use Task Manager with Oracle Integration to invoke a business operation in another application. For example, post something on Facebook when a scheduled activity happens in Task Manager.

Integration Pattern

Create an orchestrated integration in Oracle Integration.



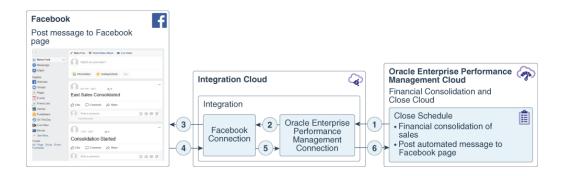
Design the integration:

- Add an Enterprise Performance Management connection as the trigger so that the integration can be triggered by Task Manager.
- Add a connection to the application that you want to automate as an invoke.
- Add an Enterprise Performance Management connection as an invoke to send status back to Task Manager.

Use Case: Post a Message on Facebook when Financial Close Completes

Let's assume that every time a financial close task has been completed in Task Manager, you want to post a message to your company's Facebook page to indicate that the sales have been consolidated.

You can do this by building an integration in Oracle Integration with an Enterprise Performance Management connection and a Facebook connection. In Task Manager, you set up a scheduled task to do financial consolidation of sales. When financial consolidation of sales is complete, the integration is triggered.





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- A financial consolidation of sales task completes in Task Manager and triggers the task to post an automated message to Facebook. The task to post an automated message to Facebook triggers the integration in Oracle Integration.
- 2 The integration triggers a post operation in Facebook through the Facebook connection.
- 3 A message is posted to Facebook.
- 4 Facebook sends a response to the integration through the Facebook connection.
- 5 The integration maps the Facebook response to Oracle Enterprise Performance Management Cloud to update task status.
- 6 The integration sends the task status update to Task Manager in Oracle Enterprise Performance Management Cloud.

Integration in Oracle Integration

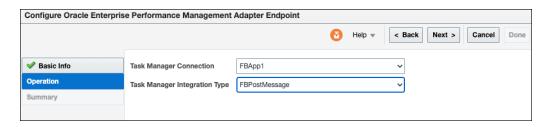
Create an App Driven Orchestration in Oracle Integration.



Add the Oracle Enterprise Performance Management Cloud connection you created in Oracle Integration as the trigger and configure the connection in the integration:

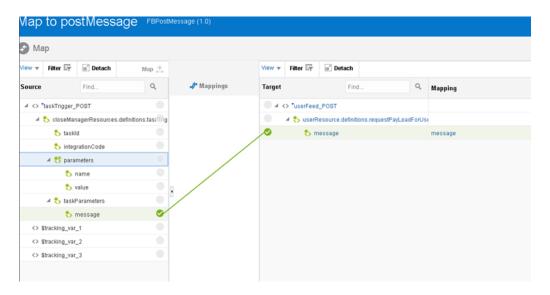
- **Task Manager Connection** is the connection to the application for which you want to automate tasks. You created this connection in Task Manager.
- Task Manager Integration Type is the integration you created in Task Manager to connect to your application. In the example, this application is Facebook.





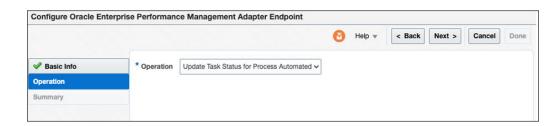
Configure the mapping fromOracle Enterprise Performance Management Cloud to Facebook:

Map the message parameter from Task Manager to Facebook.



Add the Oracle Enterprise Performance Management Cloud connection you created in Oracle Integration as an invoke to send task status back to Task Manager:

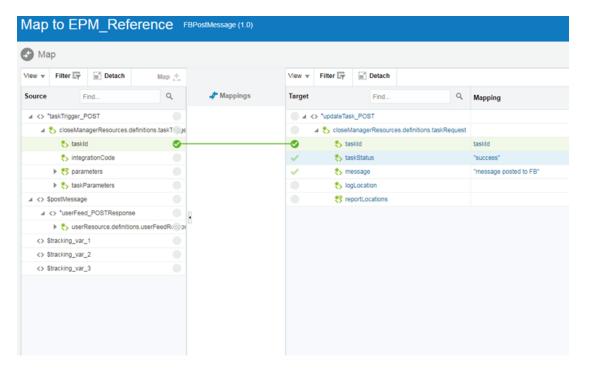
In Operation, select Update Task Status for Process Automation.



Configure the mapping from Facebook to Oracle Enterprise Performance Management Cloud to update task status:

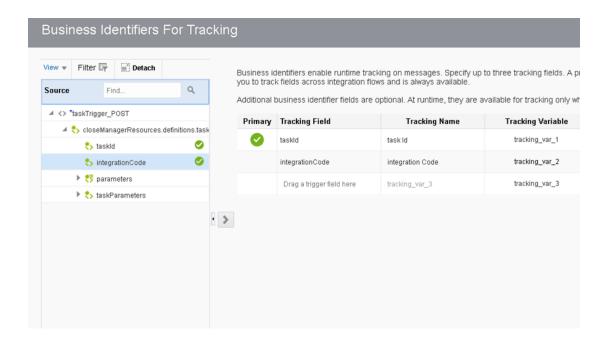
- Make sure you map the taskld. This is very important to update the task status back to Task Manager.
- Make sure you indicate the state of the taskStatus. Valid values are: success, fail, abort, warning.
- Also specify the message to send back to Task Manager. In this example, the message is "message posted".





Enable tracking

 When editing the integration, select Tracking from the menu in the upper right corner and track the taskId and IntegrationCode fields for debugging. You can also add fields from taskParameters if desired.



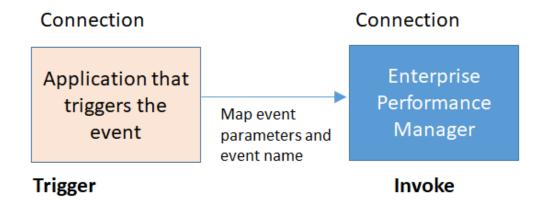


Event Monitoring Integration Pattern and Use Case

Use Task Manager with Oracle Integration to monitor events in another application that resides on-premise or on the Cloud. For example, whenever a General Ledger period closes in Oracle E-Business Suite, you want to retrieve specific data and send it to Task Manager.

Integration Pattern

Create an orchestrated integration in Oracle Integration.

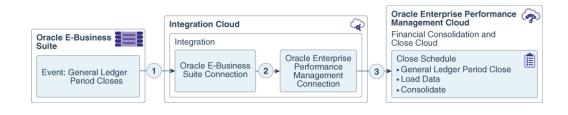


Design the integration so that:

- The application from which the event is triggered is the trigger.
- The Enterprise Performance Management connection is an invoke to send notification of the event back to Task Manager.

Use Case: Monitor Events in Other Applications

For example, build an integration in Oracle Integration with an Oracle E-Business Suite connection and an Enterprise Performance Management connection. Whenever a General Ledger Period closes in Oracle E-Business Suite, the integration is triggered and data is sent back to Task Manager.



Ste Description

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1 A General Ledger Period closes in Oracle E-Business Suite triggering the integration in Oracle Integration.



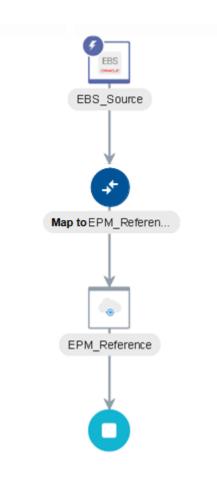
Ste Description

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- 2 The integration maps data and parameters from Oracle E-Business Suite to Oracle Enterprise Performance Management Cloud.
- The integration sends data and parameters from Oracle E-Business Suite to Task Manager in Oracle Enterprise Performance Management Cloud.

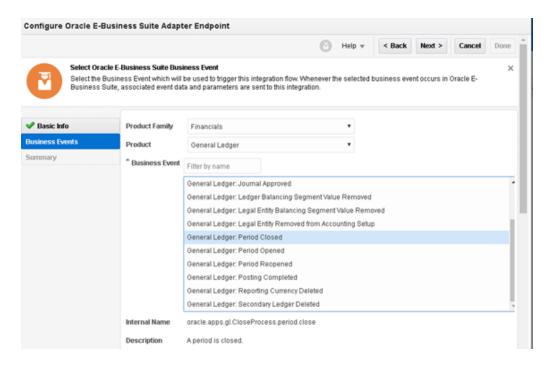
Integration in Oracle Integration

Create an App Driven Orchestration in Oracle Integration.



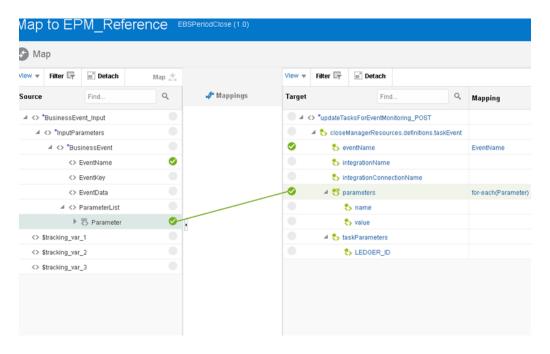
Configure the other application parameters in the integration. For example, in Oracle E-Business Suite:





Configure the mapping in the integration:

- Ensure you map the Event Name to the event name in Task Manager. This is needed for Task Manager to identify the event.
- Map all parameters in the application to the parameter array in Task Manager so that all required event data is sent back to Task Manager.

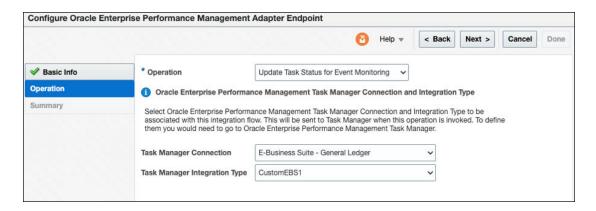


Configure the Oracle Enterprise Performance Management Cloud connection in the integration:

Ensure the Operation is Update Task Status for Event Monitoring

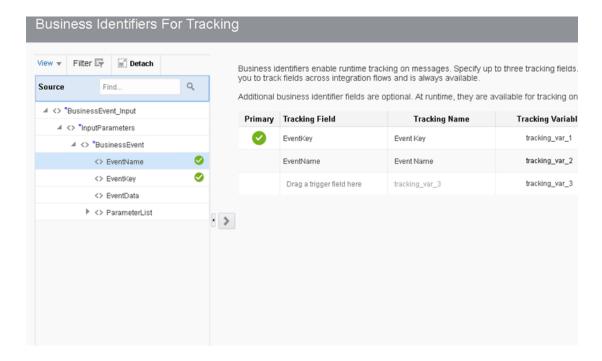


 Task Manager Connection and Task Manager Integration Type are the connections and integrations you configured in Task Manager



Enable tracking

 When editing the integration, select Tracking from the menu in the upper right corner and track the EventKey and EventName fields for debugging.



At a Glance: Workflow to Integrate with Oracle Enterprise Performance Management Cloud

Follow a 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 adapter tasks and overall integration tasks, and provides links to instructions for each step.



Step	Description	More Information
1.	In Oracle Enterprise Performance Management Cloud, configure Task Manager for your integration.	Prerequisites for Creating a Connection Identify: Oracle Integration URL and administrator user name and password with which to connect Oracle Enterprise Performance Management Cloud URL and port number, and administrator user name and password with which to connect
2.	Design your integration.	Identify the type of integration you want to create: process automation or event monitoring. Process Automation Integration Pattern and Use Case Event Monitoring Integration Pattern and Use Case
3.	In Oracle Integration, create connections for applications that you want to integrate.	Create a Connection to Oracle Enterprise Performance Management Cloud and Task Manager
4.	In Oracle Integration, create your integration.	Create Application-Driven Orchestrated Integrations
5	In Oracle Integration, activate your integration.	Activate an Integration
6.	In Oracle Enterprise Performance Management Cloud, in Task Manager, check that the integration is enabled.	In Task Manager, select Manage Integrations .
7.	In Oracle Enterprise Performance Management Cloud, in Task Manager, create a schedule and task.	 In Task Manager, select Manage Integrations. Select Manage Schedules, and create a new schedule.
		3. Create a new task and add it to the schedule.
		 4. Trigger the integration in Oracle Integration: For process automation: Open the schedule and trigger the task that triggers the integration in Oracle Integration For event monitoring: a. Open the schedule. b. In the application for which you want to monitor the event, trigger the event. c. Wait for the task to be completed.
8	In Oracle Integration, monitor the integration on the dashboard.	In the navigation pane, click Monitoring , then Integrations , then Dashboards .



Step	Description	More Information
9	Debug and troubleshoot your integration.	View errors and activity stream:
		 In the navigation pane, click Monitoring, then Integrations, then Errors.
		Hover your cursor over the instance you want to track, then click the View Details icon to open the Activity Stream pane.
		View detailed logs:
		 In the navigation pane, click Monitoring, then Integrations, then Dashboards.
		Click Logs, then select Diagnostic Logs or Incident Logs to download the associated logs.



Create an Oracle Enterprise Performance Management Cloud 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 to Oracle Enterprise Performance Management Cloud and Task Manager

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the Oracle Enterprise Performance Management Cloud Adapter

Topics:

- Configure Task Manager to Work with Oracle Integration
- · Upload an SSL Certificate

Configure Task Manager to Work with Oracle Integration

To create connections in Oracle Integration, you need to configure Task Manager to work with Oracle Integration.

For detailed instructions, see the Oracle Enterprise Performance Management Cloud documentation Creating Custom Integrations. Here's a summary:

Task Manager Configuration Summary

In Oracle Enterprise Performance Management Cloud, in Task Manager:

- Create a Connection. In Task Manager, select Manage Integrations, Manage Connections, then New.
 - Make sure the following fields are checked:
 - Enabled
 - Cloud
- Create an integration for the connection. In Task Manager, select Manage Integrations, New Integration, and select Process Automation or Event Monitoring as the type.
 - For Parameters, specify the minimum required parameters for Close Calendar.
 These parameters are generally a subset of the parameters defined in the Oracle Integration integration.

For example:

- To post a message to Facebook, you can create a single parameter of type text named message.
- To monitor an Oracle E-Business Suite Period Close task, you can specify a parameter with the name Period Name.

It's possible to define no parameters at all in **Close Calendar**, and do it all in the Oracle Integration integration.

3. Create a new task type. In Task Manager, select Manage Task Types, New Task Type.

Make sure you select the integration you just created in **Task Manager** in step 2.

- 4. Create a connection to Oracle Integration. In Task Manager, select Manage Integrations, Manage Connections, Integration Cloud Connection.
 - Specify the connection URL to connect to Oracle Integration. For example:

```
https://OIC Instance Name.integration.ocp.oraclecloud.com
```

 Specify the user name and password of the service administrator of Oracle Integration.

Upload an SSL Certificate

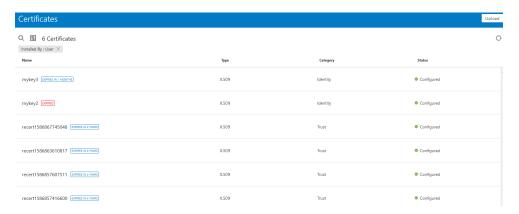
Certificates are used to validate outbound SSL connections. If you make an SSL connection in which the root certificate does not exist in Oracle Integration, an exception is thrown. In that case, you must upload the appropriate certificate. A certificate enables Oracle Integration to connect with external services. If the external endpoint requires a specific certificate, request the certificate and then upload it into Oracle Integration.

To upload an SSL certificate:

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.





- 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)

- 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.



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)

- 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)

- 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. Symmetrickey algorithms for cryptography use the same cryptographic keys for both encryption of plain text and decryption of cipher text.
- c. Click Upload.

Create a Connection to Oracle Enterprise Performance Management Cloud and Task Manager

The first step in creating an integration is to create the connections to the applications with which you want to share data. Create a connection to Oracle Enterprise Performance Management Cloud so that you can include it in your integration.

What you need:

- Complete the steps in Prerequisites for Creating a Connection.
- Connection URL. This is the URL that you use to connect to Task Manager in Oracle Enterprise Performance Management Cloud. For example:

```
https://INSTANCE_NAME-
CLOUD_ACCOUNT_NAME.EPM_CLOUD_FAMILY.DATA_CENTER_REGION.ocs.oracleclo
ud.com
```

- User name and password to connect to Oracle Enterprise Performance Management Cloud. This user account must have administrative privileges in Oracle Enterprise Performance Management Cloud.
- 1. In the navigation pane, click **Design**, then **Connections**.
- 2. Click Create.
- 3. Search for Oracle Enterprise Performance Management Cloud, then select it.
- 4. Enter the information to describe the connection, then click Create.
 - Name: Enter a meaningful name to help others find your connection when they begin to create their own integrations. If you will be creating connections for process automation or event monitoring, you will need separate connections to Oracle Enterprise Performance Management Cloud for each type.
 - Identifier: Make sure the name does not contain spaces.
 - Keywords: Enter optional keywords (tags). You can search on the connection keywords on the Connections page.

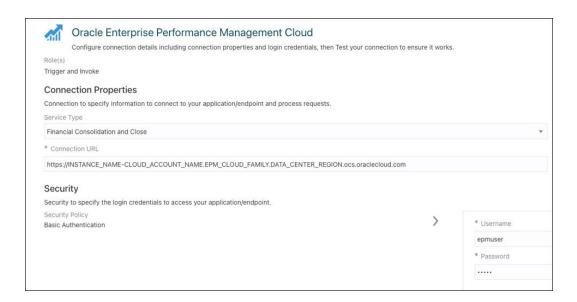


- Role: Choose both Trigger and Invoke. For process automation, your connection needs to be both Trigger and Invoke. For event monitoring, your connection can be Invoke.
- Go to the Properties section, and enter URL that you use to connect to Oracle Enterprise Performance Management Cloud. For example:.

```
https://INSTANCE_NAME-
CLOUD_ACCOUNT_NAME.EPM_CLOUD_FAMILY.DATA_CENTER_REGION.ocs.oraclecloud.com
```

6. Go to the Security section, and enter the user name and password to connect to Oracle Enterprise Performance Management Cloud. This user account must have administrative privileges in Oracle Enterprise Performance Management Cloud

The completed configuration looks similar to the following. Your service type will be different depending on what you have selected: Financial Consolidation and Close or Tax Reporting.



7. Click Test.

If the test is not successful, you will not be able to add the connection to your integration. If errors are displayed, check your connection information.

8. When complete, click Save.

You should now be able to see your new connection with a green check mark next to it. The connection is ready to use in an integration.

For information on creating an integration with your new connection and completing configuration values, refer to:

- Process Automation Integration Pattern and Use Case
- Event Monitoring Integration Pattern and Use Case
- At a Glance: Workflow to Integrate with Oracle Enterprise Performance Management Cloud



3

Find More Information About Adapters and Integrations

Get more detailed information on available adapters and on creating and monitoring integrations.

Description	More Information	
Adapters available in Oracle Integration	Adapters page on Oracle Help Center	
Create and monitor integrations	Using Integrations in Oracle Integration Generation 2	

