

# Oracle® Enterprise Data Management Cloud

Sync Oracle Enterprise Data Management  
Cloud with Oracle Database



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Oracle Enterprise Data Management Cloud Sync Oracle Enterprise Data Management Cloud with Oracle Database,  
F97439-01

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# 1

## About This Recipe

Use this recipe to synchronize Oracle Enterprise Data Management with Oracle Database.

### **Note:**

This recipe is available as **Oracle EDM Cloud — Oracle Database | Sync Enterprise Data** in the Integration Store. Oracle provides this recipe as a sample only. The recipe is meant only for guidance, and is not warranted to be error-free. No support is provided for this recipe.

### Overview

This recipe synchronizes enterprise data between Oracle Enterprise Data Management and Oracle Database.

To use this recipe, you must install the on-premises connectivity agent and then install the recipe and configure the connections within it. Then, use the **EDM DB Extract Sync** integration to extract enterprise data from a viewpoint in Oracle Enterprise Data Management and load it into a database table. Use the **DB EDM Extract Sync** integration to extract data from a database table and load it into a viewpoint in Oracle Enterprise Data Management.

### System and Access Requirements

- Oracle Integration, Version 23.2.0.0.0 or higher
- Oracle Enterprise Data Management Cloud
- An account in Enterprise Data Management Cloud with the Service Administrator role
- Oracle Database 12c and later
- An account in Oracle Database with the Administrator role

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## Before You Install The Recipe

You must perform the following configuration tasks in order to successfully connect to your database and create the extract for the recipe.


### Install and Configure Connectivity Agent

The connectivity agent enables you to connect to an on-premise database.

1. In Oracle Integration, click **Design**, and then **Agents**.
2. Click **Download**, and then select **Connectivity Agent** and save it to your desired location.
3. **Create a new agent group:**
  - a. Click **Create**.
  - b. In **Create Agent Group**, enter a name, identifier, and description for the agent, and then click **Create**.

 **Note:**

You will need to select the agent that you created when you configure your connections to Oracle Enterprise Data Management and your database. See [Install and Configure the Recipe](#).

4. Download the configuration for the agent.
  - a. For the agent that you created, click **Actions**  and select **Download config**. The `InstallerProfile.cfg` file is downloaded.
  - b. Copy the downloaded `InstallerProfile.cfg` file to the folder where you saved your connectivity agent in step 2, overwriting the existing file.

### Start the Connectivity Agent

After you download and configure the connectivity agent, follow these steps to start it:

1. Open a command window and navigate to the folder where you downloaded the connectivity agent.
2. Type the following command: `java -jar .\connectivityagent.jar` to start the agent.

### Create a Database Table for the Extracted Data

Perform the following tasks in your Oracle database to create a table for the enterprise data that you extract from Oracle Enterprise Data Management:

1. **(Optional):** Create a new schema for your table.
2. Run the following script to create a table named `EXTRACT_UPLOAD` under the schema.

```
create table EXTRACT_UPLOAD  
(
```

```

NAME          VARCHAR2 (1024) ,
DESCRIPTION   VARCHAR2 (1024)
)

```

## Create Extract in Oracle Enterprise Data Management

### Note:

This recipe extracts the **Name** and **Description** properties from a list viewpoint. When you create the extract, you can use any list viewpoint in your environment for the extract as long as it contains both properties.

In this recipe, we are using the **Cost Center** dimension in the **Acquired GL (Legacy)** application as an example, which is available when you create the sample application (see *Creating a Sample Application in Administrating and Working with Enterprise Data Management Cloud*). You do not have to use this application as long as you create the extract against a list viewpoint with the required properties.


### To create the extract:

1. From Oracle Enterprise Data Management, inspect the dimension that you want to create an extract for. In this example, we will use the **Cost Center** dimension in the **Acquired GL (Legacy)** application, available in the sample application.


### Note:

You will need to enter the application and dimension that you create the extract for in the request body of the **EDM DB Extract Sync** integration. See [Running the EDM DB Extract Sync Integration](#).

2. On the Extracts tab, click **Create**.
3. On the Create Extract screen, specify the following values:

Field	Information to Enter	Example
<b>Viewpoint</b>	<p>The viewpoint to extract data from.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b></p> <p>You will need to enter the view and viewpoint name in the request body of the <b>DB EDM Extract Sync</b> integration. See <a href="#">Running the DB EDM Extract Sync Integration</a>.</p> </div>	Cost Center



Field	Information to Enter	Example
<b>Name</b>	A name for your extract.   <b>Note:</b> You will need to enter the extract name in the request body of the <b>EDM DB Extract Sync</b> integration. See <a href="#">Running the EDM DB Extract Sync Integration</a> .	CCExtract
<b>Description</b>	<b>(Optional)</b> A description for your extract.	Extract to sync cost center with database.
<b>Extract Type</b>	The type of extract. This must be <b>Full</b> .	Full

4. **Selecting the properties for the extract:**


- a. From the extract inspector, on the **Columns** tab click **Edit**.
- b. Click **Manage Properties**, select **Description**, and then click **OK**.

 **Note:**

The **Name** property is already selected by default.

- c. Click **Save**.


5. **Promoting the extract to public:**

- a. From the dimension inspector, in the **Actions** column for the extract that you created click **Action**  , select **Promote**, and click **Yes** to confirm.
- b. Click **Save**.

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## Install and Configure the Recipe

On your Oracle Integration instance, install the recipe to deploy and configure the integration and associated resources.

1. On the Oracle Integration Home page, in the **Get started** section, click **Browse store**.
2. Find the recipe you want to install, then click **Get**.  
A message confirms that the recipe was successfully installed, and the recipe card shows **In use**.
3. Click **Configure**  on the recipe to configure its resources.  
The project workspace opens, displaying all the resources of the recipe. Configure the following resources before you activate and run the recipe.

### Configure the Oracle Enterprise Data Management Connection

1. In the Connections section, click **EDM Connection**.
2. In **Configure a connection**, enter the following values:

Field	Information to Enter
<b>Properties</b>	
Connection Type	Leave <b>REST API Base URL</b> selected
Connection URL	Enter the REST API endpoint for your service. For example: <code>https://acme-test-epmidm.epm.us-phoenix-1.ocs.oraclecloud.com/epmcloud/rest/v1</code>
<b>Security</b>	
Security Policy	Leave <b>Basic Authentication</b> selected.
Username	Enter your Service Administrator username
Password	Enter your Service Administrator password
<b>Access Type</b>	Select the appropriate access type for your Oracle Enterprise Data Management environment.

3. Click **Save** to save your connection parameters, and then click **Test** to verify them.

### Configure the Oracle Database Connection

1. In the Connections section, click **Database Connection**.
2. In **Configure a connection**, enter the following values:

Field	Information to Enter
<b>Properties</b>	
Host	Enter the host for your database
Port	Enter the port for your database

Field	Information to Enter
SID	Enter your system identifier (if needed)
Service Name	Enter your database service name
<b>Security</b>	
Security Policy	Leave <b>Username Password Token</b> selected
Username	Enter your Administrator username
Password	Enter your Administrator password
<b>Access Type</b>	Select <b>Connectivity agent</b>

3. Click **Associate agent group**, and then select the connectivity agent that you configured in the [Install and Configure Connectivity Agent](#) procedure, and then click **Use**.
4. Click **Save** to save your connection parameters, and then click **Test** to verify them.

### Configuring the EDM DB Extract Sync Integration

Next, you configure the integrations themselves to connect to your database table.

1. In the Integrations section, click the **EDM DB Extract Sync** integration. The integration is displayed in the integration editor.
2. Scroll down to locate the **Invoke** `uploadExtracttoDatabase` step.



3. Click **Actions** **\*\*\***, and then select **Edit**.
4. In **Edit Basic Info**, leave **What operation do you want to perform?** set to **Perform an Operation On a Table**, and leave **What operation do you want to perform on table?** set to **Insert**. Click **Continue**.
5. In **Edit Operation on Table**, click **Add** to select your table. Use the **Schema** and **Table Name** drop down fields to select the schema and table that you created in the [Create a Database Table for the Extracted Data](#) procedure. For **Table Type**, select **Table**, and then click **Search**.
6. In the Search results, move your table from Available to Selected, and click **Continue**.

7. Click **Continue**, and then click **Finish**.
8. Click **Save**.

#### Optional: Updating the Table Name

The **EDM DB Extract Sync** integration is coded with the expectation that you followed the steps in [Create a Database Table for the Extracted Data](#) to create a table called `EXTRACT_UPLOAD` in your Oracle database. If you are using a different table name, follow these steps to update the integration with the name of your table.

1. In the Integrations section, click the **EDM DB Extract Sync** integration. The integration is displayed in the integration editor.
2. Scroll down to locate the **Invoke** `DeleteDatabase` step in the Switch section.

#### Note:

This step clears the existing data out of the database table before writing the new data from the extract. This prevents duplicate row errors when running the **DB EDM Extract Sync** integration.

3. Click **Actions** `***`, and then select **Edit**.
4. In **Edit Basic Info**, leave **What operation do you want to perform?** set to **Run a SQL Statement**, and click **Continue**.
5. In the SQL Query, replace `EXTRACT_UPLOAD` with the name of your table. If you are extracting properties other than `NAME` and `DESCRIPTION`, update those properties.

#### Note:

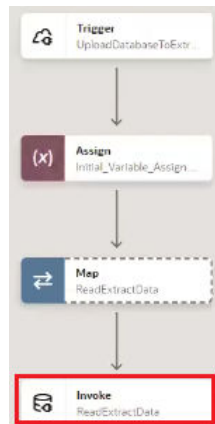
Your SQL statement must include a `WHERE` clause.

6. Click **Validate SQL Query** to ensure that your statement is valid.
7. Click **Continue**, and then click **Finish**.
8. Click **Save**.

#### Configuring the DB EDM Extract Sync Integration

##### Configure the database connection:

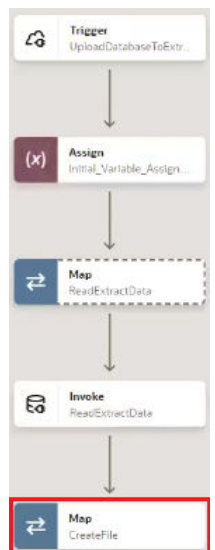
1. In the Integrations section, click the **DB EDM Extract Sync** integration. The integration is displayed in the integration editor.
2. Scroll down to locate the **Invoke** `ReadExtractData` step.



3. Click **Actions** **\*\*\***, and then select **Edit**.
4. In **Edit Basic Info**, leave **What operation do you want to perform?** set to **Perform an Operation On a Table**, and leave **What operation do you want to perform on table?** set to **Select**. Click **Continue**.
5. In **Edit Operation on Table**, click **Add** to select your table. Use the **Schema** and **Table Name** drop down fields to select the schema and table that you created in the [Create a Database Table for the Extracted Data](#) procedure. For **Table Type**, select **Table**, and then click **Search**.
6. In the Search results, move your table from Available to Selected, and click **Continue**.
7. Click **Continue**, and then click **Finish**.

**Verify the integration mapping:**

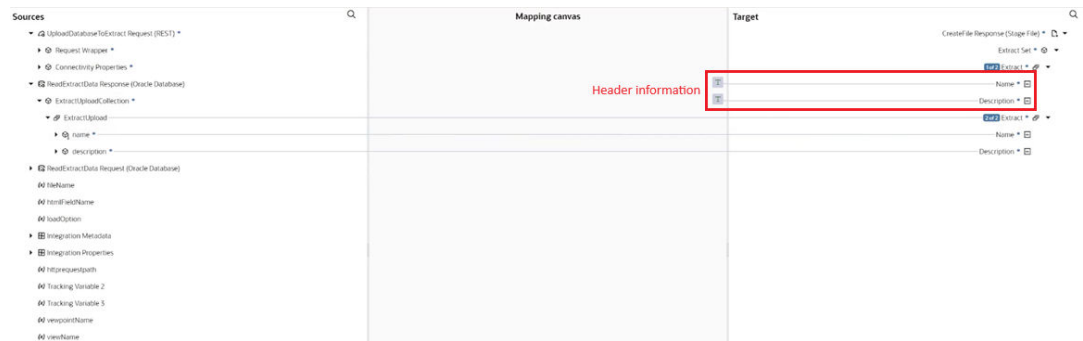
1. From the integration editor, scroll down to locate **Map** CreateFile step.



2. Click **Actions** **\*\*\***, and then select **Edit**.
3. Verify that the mapping has the following information:

Source	Target
'Name' text item in the Mapping Canvas	Extract 1 of 2: <b>Name</b> (This is the Name header on the file)
'Description' text item in the Mapping Canvas	Extract 1 of 2: <b>Description</b> (This is the Description header on the file)
ReadExtractData Response, ExtractUploadCollection, ExtractUpload, <b>name</b>	Extract 2 of 2 <b>Name</b> (this is the actual name property value)
ReadExtractData Response, ExtractUploadCollection, ExtractUpload, <b>description</b>	Extract 2 of 2 <b>Description</b> (this is the actual description property value)

See for example the screenshot below:



4. Click **Save**.

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## Activate and Run the Recipe

After you've configured the connections and other resources, activate the recipe and run it.



### Note:

Ensure that you have started the connectivity agent (see [Start the Connectivity Agent](#)) before running the integrations.


### Activating the Recipe

In the project workspace, click **Activate**. In the Activate project panel, with the default project deployment selected, choose an appropriate tracing option, then click **Activate**.

### Running the EDM DB Extract Sync Integration

1. In the Integrations section of the project workspace, click **Actions** **\*\*\*** on the **EDM DB Extract Sync** integration, and then select **Run**. The **Configure and Run** page is displayed, where you can specify values in the request body.
2. In the **Request Body** tab, enter the following values:


Field	Information to Enter	Example
applicationName	The name of the application that you created your extract for.	Acquired GL (Legacy)
dimensionName	The name of the dimension that you created your extract for.	Cost Center
extractName	The name of your extract.	CCEXTRACT

3. Click **Run**. The integration is submitted for execution.
4. Monitor the running of the integration flow in Oracle Integration in the Activity stream. Click **Refresh**  to update the activity stream until a "Processing completed successfully message" is displayed.
5. In the database, verify that the data has been written to the table that you created.


### Running the DB EDM Extract Sync Integration

1. In the Integrations section of the project workspace, click **Actions** **\*\*\*** on the **DB EDM Extract Sync** integration, and then select **Run**. The **Configure and Run** page is displayed, where you can specify values in the request body.
2. In the **Request Body** tab, enter the following values:

Field	Information to Enter	Example
viewName	The name of the view that contains the viewpoint to extract data from.	Acquired GL (Legacy)
viewpointName	The name of the viewpoint to extract data from.	Cost Center

3. Click **Run**.  
The integration is submitted for execution.
4. Monitor the running of the integration flow in Oracle Integration in the Activity stream. Click **Refresh**  to update the activity stream until a "Data Mapping completed" message is displayed.
5. In Oracle Enterprise Data Management, verify that the data has been loaded to the viewpoint that you specified:
  - a. Log into Oracle Enterprise Data Management.
  - b. Click **Views**.
  - c. Select the view that contains the viewpoint that you loaded data to, for example, **Acquired GL (Legacy)**.
  - d. Navigate to the viewpoint that you loaded data to, for example, **Cost Center**, and verify that the data from your database table has been loaded.

 **Tip:**

From the viewpoint, click **Actions** , and then **Load** to navigate to the Viewpoint Load screen. Verify that the **History** section lists the extract that you ran.