Oracle® Cloud

Import Orders from Oracle ERP Cloud to Oracle Autonomous Data Warehouse

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Oracle Cloud Import Orders from Oracle ERP Cloud to Oracle Autonomous Data Warehouse,

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Preface

This document describes how to install, configure, and run this recipe in Oracle Integration 3.

Topics:

Documentation Accessibility

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Related Resources

For more information, see these Oracle resources:

- Oracle Integration documentation on the Oracle Help Center.
- Oracle Cloud at http://cloud.oracle.com.

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.

Convention	Meaning
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.

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About This Recipe

Use this recipe to import orders from Oracle ERP Cloud to Oracle Autonomous Data Warehouse (ADW).

> **Note:**
>
> This recipe is available as **Oracle ERP Cloud — Oracle ADW | Import Orders** in Oracle Integration. 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 imports the order details of a new order created in Oracle ERP Cloud (Order Management Module) to a database table in Oracle ADW.

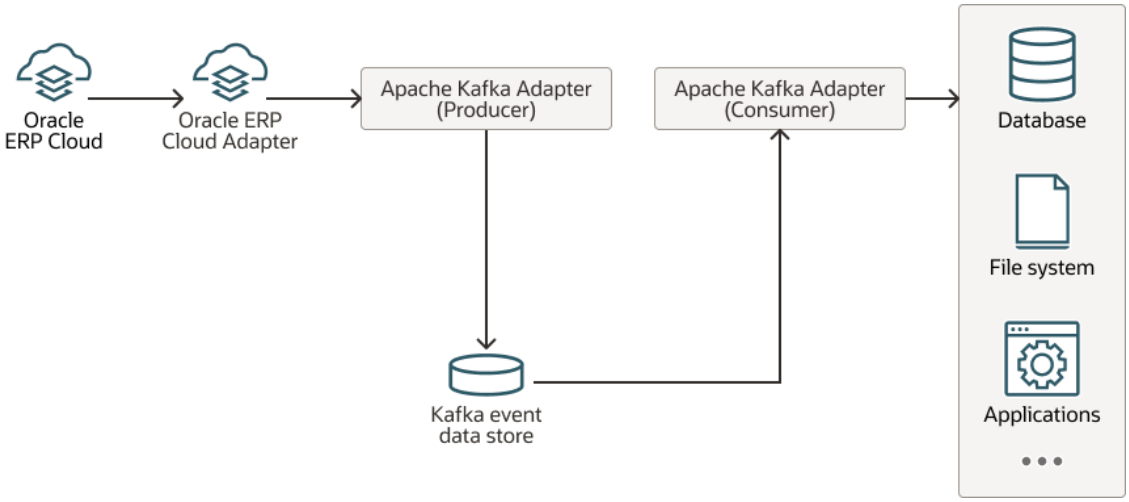
To use the recipe, you must install the recipe and configure the connections and other resources within it. The recipe contains two integration flows, one for receiving the orders from Oracle ERP Cloud and then updating the same into an Apache Kafka topic, and another for writing the orders from the Apache Kafka topic into the Oracle ADW database table. When an order is created in Oracle ERP Cloud, the first integration (**Oracle ERP Kafka Order Sync Producer**) is triggered. The integration flow receives the order details from Oracle ERP Cloud and writes it into an Apache Kafka topic. This in turn triggers the second integration (**Oracle Kafka ADW Order Sync Consumer**) which consumes the order from the Apache Kafka topic and writes it to the Oracle ATP database table, thereby importing the newly created order from Oracle ERP Cloud.

System and Access Requirements

- Oracle Integration, Version 24.10 or higher
- Oracle ERP Cloud
- Oracle ADW
- Apache Kafka
- An account on Oracle ERP Cloud with the Administrator and Procurement Manager roles
- An account on Oracle ADW with the Administrator role
- An Oracle ADW database table with write access
- An account on Apache Kafka with the Administrator role

Recipe Schema

This section provides an architectural overview of the recipe.



An event is raised in Oracle ERP Cloud when an order is created. This triggers the first integration flow in Oracle Integration. The integration flow uses the Oracle ERP Cloud Adapter and the Apache Kafka Adapter (Producer) to get and write the order details to an Apache Kafka topic. This in turn triggers the second integration flow which uses the Apache Kafka Adapter (Consumer) and Oracle Autonomous Data Warehouse Adapter to write the order details from the Apache Kafka topic to an Oracle ADW database table.

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Before You Install the Recipe

You must perform the following configuration tasks on your Oracle ERP Cloud, Apache Kafka, and Oracle ADW instances in order to successfully connect to these external systems using Oracle Integration and import orders.

Configure Oracle ERP Cloud

To access the Oracle ERP Cloud instance from Oracle Integration, you'll require a separate user account on Oracle ERP Cloud.

Log in to your Oracle ERP Cloud instance as an **Administrator** and perform the following tasks.

1. Create a user account for Oracle Integration. Make a note of the user name and password you set for the account. You'll use the credentials of this user account to connect to Oracle ERP Cloud from Oracle Integration.
2. Assign the following roles/privileges to the user account. See Assign Required Roles to an Integration User.
   - `Integration Specialist`
   - `AttachmentsUser`
   - `FND_MANAGE_CATALOG_SERVICE_PRIV`

For more details, see Prerequisites for Creating a Connection.

Configure Apache Kafka

Complete the following configuration tasks on your Apache Kafka instance to successfully connect to it from Oracle Integration and import orders.

1. Get the Apache Kafka Cluster Bootstrap Server URL. See Prerequisites for Creating a Connection.
2. Install the connectivity agent.

   As Apache Kafka is hosted on-premise and is behind a firewall, you must install and configure the connectivity agent to allow Apache Kafka to interact with applications in the cloud.

   Before you install the connectivity agent, review the following:

   - System Requirements
   - Connectivity Agent Restrictions

   To install and configure the connectivity agent:

   a. Create an agent group.
   b. Download and install the connectivity agent.
3. Configure an Apache Kafka topic.

a. From the command prompt execute the following command to create a topic named `orders`.

```
kafka-topics.bat --bootstrap-server localhost:9092 --create --topic
orders --partitions 2 --replication-factor 1
```

You get a message that the topic is created.

b. Create a consumer group.

```
kafka-console-consumer.bat --bootstrap-server localhost:9092 --topic
orders --group ordersconsumer
```

c. To view the topic created.

```
kafka-topics.bat --zookeeper 127.0.0.1:2181 –list
```

For more details, see Prerequisites for Creating a Connection.

Configure Oracle ADW

Complete configuration tasks in your Oracle ADW instance to successfully connect to it using Oracle Integration and import orders.

The following steps give an overview of the tasks you need to perform to obtain information and details for configuring the ADW connection from Oracle Integration. For more information on the steps, see Prerequisites for Creating a Connection.

1. Download the client credentials wallet.

   This is a zip file containing the client security credentials. By default the file name is `Wallet_<databasename>.zip`. You can save this file as any file name you want.

2. Get the ADW wallet password.

   You'll be prompted to enter a wallet password while downloading the client credentials wallet. Note the password as you'll need it while configuring the ADW connection security from Oracle Integration.

3. Get the ADW database service name.

   Note that the service name must be same as the one in the `tnsnames.ora` file in the client credential wallet.

4. Get the database service username and password to connect to Oracle ADW database.

   The database service username is the schema username for the user to log in to the database. Note that the database service username is *not* the same as the database service name that you specify in the connection properties on the Connections window.

Additionally, create a database table to write the imported orders. Download the following SQL script - SQLScript.txt, and run it on your Oracle ADW instance to create the required database table.

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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 ERP Cloud Connection

1. In the Connections section, click the connection name.
2. In the Properties section, enter the Oracle ERP Cloud host name. For example: `https://your_domain_name.fa.DC.oraclecloud.com`.
3. In the Security section, enter the following details:

Field	Information to Enter
Security Policy	Select **Username Password Token**.
Username	Enter the username of the account created for Oracle Integration on Oracle ERP Cloud. See Configure Oracle ERP Cloud.
Password	Enter the password of the account created for Oracle Integration on Oracle ERP Cloud.

4. Click **Save**. If prompted, click **Save** again.
5. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.

   A message confirms if your test is successful.

6. To return to the project workspace, click **Go back**  .

Configure the Apache Kafka Connection

1. In the Connections section, click the connection name.
2. In the **Bootstrap Servers** field, enter the Bootstrap Server URL you obtained earlier while configuring Apache Kafka. See Configure Apache Kafka.
3. In the **Security Policy** field, select **No Security Policy**.
4. In the Agent Group section, select the agent group.

a. Click **Configure Agents**.

b. On the Select an Agent Group dialog, select the agent group that you had configured while installing the connectivity agent. See Configure Apache Kafka.

c. Click **Use**.

5. Click **Save**. If prompted, click **Save** again.
6. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.

   A message confirms if your test is successful.

7. To return to the project workspace, click **Go back**  .

Configure the Oracle ADW Connection

1. In the Connections section, click the connection name.
2. In the Properties section, enter the service name of your Oracle ADW instance. See Configure Oracle ADW.
3. In the Security section, enter the following details:

Field	Information to Enter
Security Policy	Select **JDBC Over SSL**.
Wallet	Click **Upload** to upload the credential wallet file that you obtained earlier. See Configure Oracle ADW.
Wallet Password	Enter the password for your credential wallet file.
Database Service Username	Enter your Oracle ADW account username.
Database Service Password	Enter your Oracle ADW account password.

4. Click **Save**. If prompted, click **Save** again.
5. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.

   A message confirms if your test is successful.

6. To return to the project workspace, click **Go back**  .

4 Activate and Run the Recipe

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

1. 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**.

   A message confirms that the integrations have been activated. Refresh the page to view the updated status of the integrations.

2. Run the recipe.

   a. Log in to your Oracle ERP Cloud instance with the Procurement Manager role.

   b. Create an order.

      Click the **Task** drop-down menu, and select **Create Order**.

   On successfully creating an order in Oracle ERP Cloud, the first integration flow **Oracle ERP Kafka Order Sync Producer** gets triggered and it receives the order details and writes the same into the Apache Kafka topic. Subsequently, the second integration flow **Oracle Kafka ADW Order Sync Consumer** gets triggered which consumes the order details from the Apache Kafka topic and writes it to the Oracle ADW database table.

3. Monitor the running of the integration flows in Oracle Integration.

   a. In the project workspace, click **Observe**. You'll see the integration flows being triggered and running successfully.

   b. To manage errors in your project, see Manage Errors in a Project.

4. Verify that the order details are written to the Oracle ADW database table.

   Execute the following command:

```
SELECT * FROM ERPUSER.SALES_ORDER_LINEITEMS

          SELECT * FROM ERPUSER.SALES_ORDER_HEADER
```

Related Documentation

- *Using the Oracle ERP Cloud Adapter with Oracle Integration 3*
- *Using the Apache Kafka Adapter with Oracle Integration 3*
- *Using the Oracle Autonomous Data Warehouse Adapter with Oracle Integration 3*