## Oracle® Cloud

# Using the Oracle Unity Adapter with Oracle Integration Generation 2





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

F47694-03

Copyright © 2022, 2023, 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

	KO:	f_	
$\boldsymbol{-}$	re.	121	( · (

Audience	\
Documentation Accessibility	\
Diversity and Inclusion	\
Related Resources	V
Conventions	V
Understand the Oracle Unity Adapter	
Oracle Unity Adapter Capabilities	1-1
Oracle Unity Adapter Restrictions	1-2
What Application Version Is Supported?	1-3
Workflow to Create and Add an Oracle Unity Adapter Connection to an Integration	1-3
Create an Oracle Unity Adapter Connection	
Prerequisites for Creating a Connection	2-1
Create a Connection	2-1
Configure Connection Properties	2-2
Configure Connection Security	2-3
Test the Connection	2-3
Test the Connection Upload an SSL Certificate	2-3 2-4
Upload an SSL Certificate	
Upload an SSL Certificate  Add the Oracle Unity Adapter Connection to an Integration	2-4
Upload an SSL Certificate  Add the Oracle Unity Adapter Connection to an Integration  Basic Info Page	3-1
Opload an SSL Certificate  Add the Oracle Unity Adapter Connection to an Integration  Basic Info Page Invoke Operations Page	3-1 3-2
Add the Oracle Unity Adapter Connection to an Integration  Basic Info Page Invoke Operations Page Invoke Ingest Config Page	3-1 3-2 3-2
Add the Oracle Unity Adapter Connection to an Integration  Basic Info Page Invoke Operations Page Invoke Ingest Config Page Invoke Ingest Fields Page	3-1 3-2 3-2 3-2



4 Implement Common Patterns Using the Oracle Unity Adapter

Read a File from an FTP Server and Ingest the Data into Oracle Unity

Export Oracle Unity Data to Different Destinations

Read 360 Data from Oracle Unity and Write Profile Data to an FTP Server

4-6

Export Oracle Unity Metadata to an FTP Server

4-8



#### **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 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 Generation 2
- Using the Oracle Mapper with Oracle Integration Generation 2
- 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.	
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 Unity Adapter

Review the following conceptual topics to learn about the Oracle Unity 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:

- · Oracle Unity Adapter Capabilities
- Oracle Unity Adapter Restrictions
- What Application Version Is Supported?
- Workflow to Create and Add an Oracle Unity Adapter Connection to an Integration

## **Oracle Unity Adapter Capabilities**

The Oracle Unity Adapter enables you to create an integration between Oracle Unity and Oracle Integration.

You can create an integration with any platform, such as Salesforce, Google, Twitter, Workday, CX Sales, Responsys, and others.

Oracle Unity as a Customer Data Platform (CDP) provides you with one stop for all data segmentation and deduplication needs. You can ingest CRM data and create segments and campaigns, and export the data to other platforms.

The Oracle Unity public API, segmentation, and campaign play a major role in integrating the Oracle Unity Adapter with third-party applications. The Oracle Unity Adapter supports all these services with a single gateway. The Oracle Unity Adapter encapsulates the API details, authentication, request token refresh, and others.

The Oracle Unity Adapter enables nontechnical developers to build integration solutions from Oracle Unity to other applications without the complexities.

The Oracle Unity Adapter provides the following capabilities:

- Supports connections protected using Resource Owner Password Credentials.
- Supports all custom objects you define and custom fields you create in Oracle Unity, along with standard objects and fields.
- Supports all segments you define in Oracle Unity.
- Supports all ID graph rules you define in Oracle Unity for the 360 Data API.
- Enables simplified bidirectional integration with other platforms.
- Supports data ingestion into Oracle Unity from external sources. You can select the entity into which to ingest the data.
- Exports data:
  - Segment:
    - You can select the unity segment.



- 360 Data:
  - You can select an ID graph rule.
  - You can select a subrule.
- Metadata of the entities

The Oracle Unity Adapter is one of many predefined adapters included with Oracle Integration. You can configure the Oracle Unity Adapter as an invoke connection in an integration in Oracle Integration.

#### **Oracle Unity Adapter Restrictions**

Be aware of the following constraints before configuring the Oracle Unity Adapter.

- Data ingestion:
  - The Oracle Unity Adapter uses the Streaming API for ingesting data into
    Oracle Unity. All the constraints applicable to the Streaming API are applicable
    to the Oracle Unity Adapter's ingest functionality.
  - The Oracle Unity Adapter uses the Streaming API for ingesting data into
    Oracle Unity. The data is not saved into Oracle Unity objects unless the data
    warehouse job is executed. Invoking the data warehouse job is not done by
    the Oracle Unity Adapter.
  - Only a maximum of five entities can be selected for data ingestion into Oracle Unity.
  - The names of the entities shown in the Ingest Config page and the names displayed in the mapper are different. The resource name of the entity is displayed in the mapper. The necessary message is displayed in the Oracle Unity Adapter Ingest Fields page about this difference.
  - Each data packet ingested into Oracle Unity cannot be more than 1 MB.
  - Rate Limit:
    - 200 API calls per second per tenant for data ingest.
- Data export:
  - The Oracle Unity Adapter extracts data from Oracle Unity using the Data Query API. Therefore, it is subject to Data Query API limitations.
  - Each part extracted as part of data extraction cannot be more than 5 MB.
  - Rate Limit:
    - 60 API calls per second for data export.
- The Oracle Unity Adapter is developed using the Oracle Integration adapter framework. Therefore, all restrictions pertaining to timeout and payload size limit of Oracle Integration are applicable.



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



## 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.

## Workflow to Create and Add an Oracle Unity 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.

This table lists the workflow steps for both adapter tasks and overall integration tasks, and provides links to instructions for each step.

Step	Description	More Information
1	Access Oracle Integration.	Go to https://instance_URL/ic/home
2	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 an Oracle Unity Adapter Connection
3	Create the integration. When you do this, you add invoke (target) connections to the integration.	Understand Integration Creation and Best Practices in Using Integrations in Oracle Integration Generation 2 and Add the Oracle Unity Adapter Connection to an Integration
4	Map data between the source connection data structure and the target connection data structure.	Map Data in Using Integrations in Oracle Integration Generation 2
5	(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 Using Integrations in Oracle Integration Generation 2
6	Activate the integration.	Activate an Integration in Using Integrations in Oracle Integration Generation 2
7	Monitor the integration on the dashboard.	Monitor Integrations in Using Integrations in Oracle Integration Generation 2
8	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>
9	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in Using Integrations in Oracle Integration Generation 2



## Create an Oracle Unity Adapter Connection

A connection is based on an adapter. You define connections to the specific cloud applications that you want to integrate. The following topics describe how to define connections.

#### **Topics:**

- Prerequisites for Creating a Connection
- Create a Connection
- Upload an SSL Certificate

#### Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the Oracle Unity Adapter.

- Obtain the Oracle Unity URL
- Obtain the Resource Owner Password Credentials Security Policy Values

#### **Obtain the Oracle Unity URL**

Purchase a subscription to Oracle Unity. When you subscribe, you receive an Oracle Unity instance URL. You specify this URL when creating a connection on the Connections page.

#### Obtain the Resource Owner Password Credentials Security Policy Values

When you create an Oracle Unity Adapter connection on the Connections page, you must specify the following values when configuring the Resource Owner Password Credentials security policy. Oracle Unity provides documentation on how to obtain these values. See Authenticate with OAuth 2.0.

- Access token URI
- Client ID and client secret
- Username and password
- Scope

#### 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:

- 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.)
- 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

Q

#### 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.
- 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 Properties**

Enter connection information so your application can process requests.

You must satisfy the connection property prerequisites before you can successfully create a connection. See Prerequisites for Creating a Connection.

- Go to the Connection Properties section.
- In the Oracle Unity URL field, enter the URL for connecting to Oracle Unity. For example, https://XXXXXX.cxunity.ocs.oraclecloud.com.

The URL is provided when you subscribe to Oracle Unity.



#### **Configure Connection Security**

Configure security for your Oracle Unity Adapter connection by selecting the security policy and specifying security details.

You must satisfy the Oracle Unity Adapter prerequisites before you can successfully create a connection. See Prerequisites for Creating a Connection.

- 1. Go to the **Security** section.
- 2. Select the Resource Owner Password Credentials security policy.
- Enter your login credentials:

Element	Description	
Access Token URI	Enter the authorization server that generates the access token:	
	https://IDCS_URL/oauth2/v1/token	
Client ID	Enter the unique random string that matches the API console project.	
Client Secret	Enter the unique random string that matches the API console project.	
Username	Enter the Oracle Identity Cloud Service username of the OAuth token request.	
Password	Enter the Oracle Identity Cloud Service password of the OAuth token request.	
Scope	Enter the list of authorization permissions for the target application. For example, read write.	

4. Click OK.

#### **Test the Connection**

Test your connection to ensure that it's configured successfully.

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



- 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.
- When complete, click Save.

### Upload an SSL Certificate

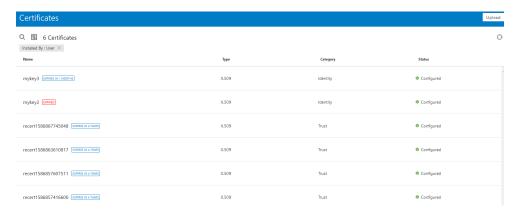
Certificates are used to validate outbound SSL connections. If you make an SSL connection in which the root certificate does not exist in Oracle Integration, an exception is thrown. In that case, you must upload the appropriate certificate. A certificate enables Oracle Integration to connect with external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

To upload an SSL certificate:

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.



3

## Add the Oracle Unity Adapter Connection to an Integration

When you drag the Oracle Unity Adapter into the invoke area of an integration, the Adapter Endpoint Configuration Wizard is invoked. This wizard guides you through configuration of the Oracle Unity Adapter endpoint properties.

The following sections describe the wizard pages that guide you through configuration of the Oracle Unity Adapter as an invoke in an integration. The Oracle Unity Adapter cannot be configured as a trigger in an integration.

#### **Topics:**

- · Basic Info Page
- Invoke Operations Page
- Invoke Ingest Config Page
- Invoke Ingest Fields Page
- Invoke Export Config Page
- Invoke Export Segment Config Page
- Invoke Export 360 Config 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 responsibilities of this connection. You can include English characters, numbers, underscores, and hyphens in the natinclude the following characters:	
	No blank spaces (for example, My Inbound Connection)
	<ul> <li>No special characters (for example, #;83&amp; or righ(t) now4)</li> <li>except underscores and hyphens</li> </ul>
	<ul> <li>No multibyte characters</li> </ul>
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example:
	This connection receives an inbound request to synchronize account information with the cloud application.



## **Invoke Operations Page**

Select to either ingest (import) data into Oracle Unity or export data from Oracle Unity.

Element	Description	
Туре	<ul> <li>Ingest (Ingest data into Unity): Select to ingest (import) data into Oracle Unity.</li> </ul>	
	<ul> <li>Export (Export data out of Unity): Select to export data from Oracle Unity.</li> </ul>	

## Invoke Ingest Config Page

Configure the ingest operation by selecting the entities into which to ingest data. You can select more than one entity if data must be ingested into multiple entities. You can select a maximum of five entities.

Element	Description
Filter By Name	Enter letters to filter the display of entities by name.
Available Entities	Displays the list of entities available for selection. Select up to five entities.
Selected Entities	Displays the list of entities selected for ingestion.

#### Invoke Ingest Fields Page

Select the fields for each entity into which to ingest data. Different tabs are displayed for each of the entities selected on the Ingest Config page.

Use the resource name for the entity in the mapper. For example, if the entity selected on the Ingest Config page was **customers**, the resource name to use in the mapper is named **customers**.

Element	Description
Filter By Field Name	Enter letters to filter the display of fields by name.
Available Fields	Displays the list of fields available for selection for each entity into which to ingest data.
Selected Fields	Displays the list of fields selected for each entity into which to ingest data. There is no limit on the number of fields you can select.



## Invoke Export Config Page

Select the export operation to perform. Based on your selection, you are then prompted to select the associated segment, rule, or entity.

Element	Description
Segment	Select to export data for the selected segment from Oracle Unity.
360 Data	Select to export the complete profile of a selected customer from Oracle Unity. If you select this option, the rule and subrule you are prompted to select must be created in the Oracle Unity instance you specified on the Connections page.
Metadata	Export the schema of a selected entity from Oracle Unity.
Select Unity Segment (Appears if Segment is selected.)	Select the segment to export from Oracle Unity.
Select Rule (Appears if 360 Data is selected.)	Select the rule.

### Invoke Export Segment Config Page

Select the step to execute when invoking the API to request data. This page is displayed if you selected **Segment** on the Export Config page.

Each step requires its own Oracle Unity Adapter connection to complete the segment data export functionality. For example:

- Add an initial Oracle Unity Adapter connection to the integration and select the Initiate
   Data Query option.
- Add a second Oracle Unity Adapter connection to the integration and select the Check the Status of the Query option.
- Add a third Oracle Unity Adapter connection to the integration and select the Fetch Data
  option.

Element	Description
Initiate Data Query	Select to run the query to request data.
Check the Status of the Query	Select to check the query status.
Fetch Data	Select to fetch the request data.



## Invoke Export 360 Config Page

Select a subrule for which to view the data. You can select only one subrule. This page is displayed if you selected **360 Data** on the Export Config page.

Element	Description
Select a Subrule	Select the subrule.

## **Summary Page**

You can review the specified adapter configuration values on the Summary page.

Element	Description
Summary	Displays a summary of the configuration values you defined on previous pages of the wizard.
	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.
	To return to a previous page to update any values, click the appropriate tab in the left panel or click <b>Back</b> .
	To cancel your configuration details, click Cancel.



4

## Implement Common Patterns Using the Oracle Unity Adapter

You can use the Oracle Unity Adapter to implement the following common patterns.

#### Topics:

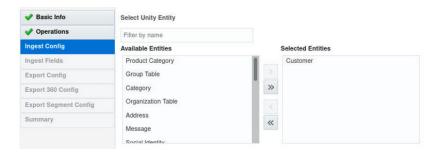
- Read a File from an FTP Server and Ingest the Data into Oracle Unity
- Export Oracle Unity Data to Different Destinations
- Read 360 Data from Oracle Unity and Write Profile Data to an FTP Server
- Export Oracle Unity Metadata to an FTP Server

## Read a File from an FTP Server and Ingest the Data into Oracle Unity

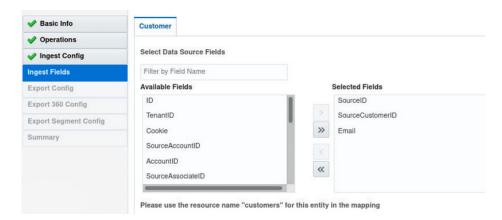
You can ingest data from different sources into Oracle Unity. This use case provides an overview of how to read a file from an FTP server and ingest the data into Oracle Unity using the Oracle Unity Adapter.

- Create an FTP Adapter connection to an FTP server.
- 2. Create an Oracle Unity Adapter connection to Oracle Unity.
- 3. Create a scheduled orchestrated integration.
- 4. Drag the FTP Adapter into the integration canvas. The Adapter Endpoint Configuration Wizard is displayed.
- 5. Provide information about the location of the file to read, the file format, and other details.
- Perform the source to target mappings between the schedule and the FTP Adapter.
- 7. Drag the Oracle Unity Adapter into the integration canvas after the FTP Adapter. The Adapter Endpoint Configuration Wizard is displayed.
  - a. On the Basic Info page, enter a name and optional description.
  - b. On the Operations page, select Ingest (Ingest data into Unity).
  - **c.** On the Ingest Config page, select the entities into which to ingest data. For this example, **Customer** is selected.

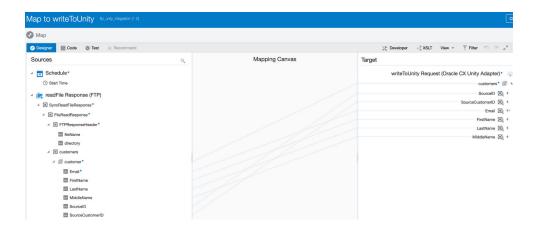




d. On the Ingest Fields page, select the entity fields into which to save the data. These fields are available in the mapper. For this example, SourceID, SourceCustomerID, and Email are selected. The message at the bottom of the page tells you to use the resource name customers for this entity in the mapper.



- e. On the Summary page, review your selections and click **Done**.
- **8.** In the mapper, perform the following steps:
  - Map the input fields from the sFTP server file. The resource name customers
    is displayed for mapping in the mapper.
  - Map the field attributes.



When complete, the integration looks as follows.





- 9. Activate the integration. After successful activation, you can submit the integration and monitor the runtime in Oracle Integration.
- **10.** Run the data warehouse (DW) job in Oracle Unity to see the ingested data persist in the corresponding entities.

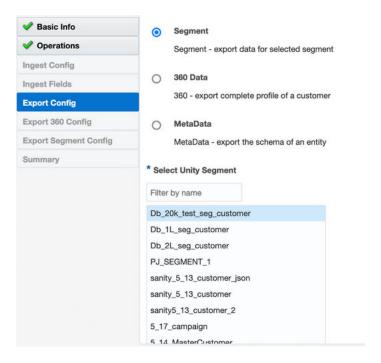
### **Export Oracle Unity Data to Different Destinations**

You can export Oracle Unity data to different destinations. This integration exports a segment and ingests data into Oracle Unity with the Oracle Unity Adapter. This integration only describes the Oracle Unity Adapter design portions of the integration. Design the remaining parts of the integration according to your requirements.

The segment is exported in three steps, each of which must be created in a separate Oracle Unity Adapter connection in the integration:

- Invoke: This invokes the Segment export API.
- Find Status: This returns the status of the Invoke API. Segment data is returned in parts. A successful response means all the data parts are ready to be queried.
- Query Part: Once a successful status is returned in step 2, all parts are retrieved individually and written to the staging file.
- Create an FTP Adapter connection to an FTP server.
- Create an Oracle Unity Adapter connection to Oracle Unity.
- 3. Create a scheduled orchestrated integration.
- 4. Drag the Oracle Unity Adapter into the integration canvas. The Adapter Endpoint Configuration Wizard is displayed.
  - a. On the Basic Info page, enter a name and optional description.
  - b. On the Operations page, select Export (Export data out of Unity).
  - c. On the Export Config page, select **Segment**, then select a single segment from the list.



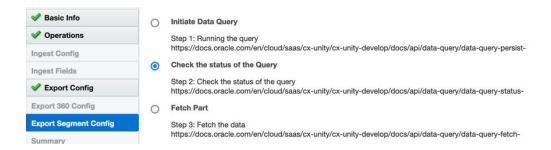


d. On the Export Segment Config page, select Initiate Data Query to trigger the API to invoke the segment export.

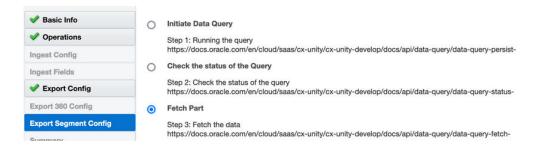


- e. On the Summary page, review your selections and click **Done**.
- Drag a second Oracle Unity Adapter into the integration canvas to check the status of the segment export. The Adapter Endpoint Configuration Wizard is displayed.
  - a. On the Basic Info page, enter a name and optional description.
  - b. On the Operations page, select **Export (Export data out of Unity)**.
  - c. On the Export Config page, select **Segment**, then select the same segment you selected with the first Oracle Unity Adapter.
  - d. On the Export Segment Config page, select Check the status of the Query. The status check logic must be written inside a while action.





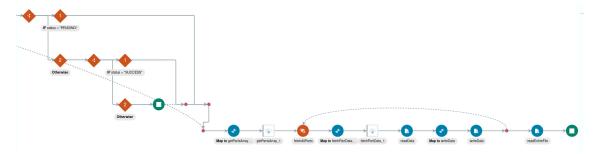
- e. On the Summary page, review your selections and click **Done**.
- Drag a third Oracle Unity Adapter into the integration canvas to fetch the data. The Adapter Endpoint Configuration Wizard is displayed.
  - a. On the Basic Info page, enter a name and optional description.
  - b. On the Operations page, select Export (Export data out of Unity).
  - c. On the Export Config page, select **Segment**, then select the same segment you selected with the first and second Oracle Unity Adapters.
  - d. On the Export Segment Config page, select Fetch Part. Once the status is successful, fetch all the parts of the data in a for-each action and write the data into a staging file.



e. On the Summary page, review your selections and click **Done**.
 When complete, the fully-designed integration looks as follows:





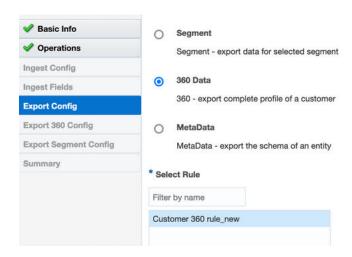


7. Activate the integration. After successful activation, you can submit the integration and monitor the runtime in Oracle Integration.

## Read 360 Data from Oracle Unity and Write Profile Data to an FTP Server

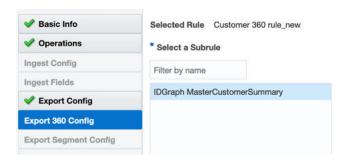
You can read 360 data from Oracle Unity and write the profile data to an FTP server. The record identifier is read from FTP.

- 1. Create an FTP Adapter connection to an FTP server.
- 2. Create an Oracle Unity Adapter connection to Oracle Unity.
- 3. Create a scheduled orchestrated integration.
- Drag the FTP Adapter into the integration canvas and configure it to read the record identifier file from the FTP folder.
- 5. Drag the Oracle Unity Adapter into the integration canvas. The Adapter Endpoint Configuration Wizard is displayed.
  - a. On the Basic Info page, enter a name and optional description.
  - b. On the Operations page, select Export (Export data out of Unity).
  - c. On the Export Config page, select 360 Data, then select a single rule from the list.

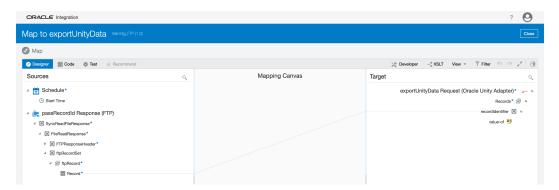


d. On the Export 360 Config page, select the subrule.

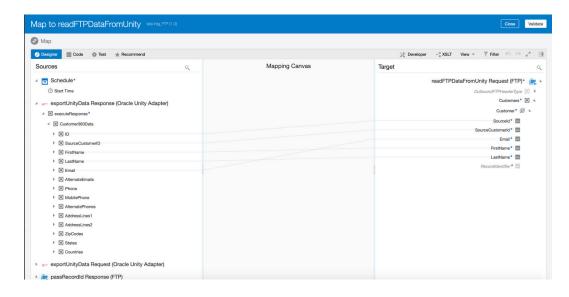




- e. On the Summary page, review your selections and click **Done**.
- 6. Perform the mapping between the record identifier fetched from the FTP server and the Oracle Unity Adapter. The Oracle Unity Adapter uses the record identifier to fetch 360 data for the given record identifier.



- 7. Drag a second FTP Adapter into the integration canvas and configure the file into which to write the data.
- 8. Configure the mapping between the Oracle Unity Adapter and FTP Adapter to write the data into the FTP file.

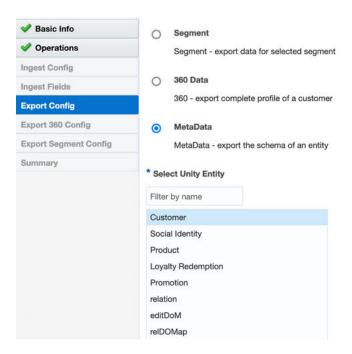


9. Activate the integration. After successful activation, you can submit the integration and monitor the runtime in Oracle Integration.

### Export Oracle Unity Metadata to an FTP Server

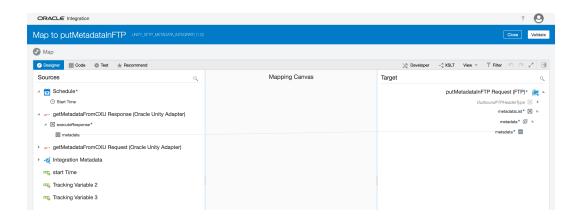
You can export Oracle Unity metadata to an FTP server. Metadata is the structure of an entity. It defines the different attributes. Its data types, foreign keys, and others can be exported from Oracle Unity and used to recreate a similar structure in a different platform.

- 1. Create an FTP Adapter connection to an FTP server.
- 2. Create an Oracle Unity Adapter connection to Oracle Unity.
- 3. Create a scheduled orchestrated integration.
- 4. Drag the FTP Adapter into the integration canvas and configure it.
- 5. Drag the Oracle Unity Adapter into the integration canvas. The Adapter Endpoint Configuration Wizard is displayed.
  - a. On the Basic Info page, enter a name and optional description.
  - b. On the Operations page, select Export (Export data out of Unity).
  - **c.** On the Export Config page, select **MetaData**, then select the entity that includes the metadata to export.



- d. On the Summary page, review your selections and click **Done**.
- Create mapping between the Oracle Unity Adapter and the FTP Adapter connection.





When complete, the integration looks as follows:



7. Activate the integration. After successful activation, you can submit the integration and monitor the runtime in Oracle Integration.

