## Oracle® FMW Getting Started with Oracle Data Integrator on Oracle Cloud Marketplace



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## 1 Getting Started with Oracle Cloud Marketplace

Oracle Data Integrator on Oracle Cloud Marketplace is a product offering that enables customers to quickly set up and run Oracle Data Integrator (ODI) on Oracle Cloud. It provides a fully unified solution for building, deploying, and managing complex data warehouses or as part of data- centric architectures in a SOA or business intelligence environment. In addition, it combines all the elements of data integration - data movement, data synchronization, data quality, data management, and data services - to ensure that information is timely, accurate, and consistent across complex systems.

This chapter contains the following sections:

- Prerequisites
- Selecting Your Product
- Launching Your Oracle Data Integrator Instance
- Connecting to ODI Compute Instance
- Accessing the ODI Compute Instance
- Using Autonomous Databases in ODI
- Installation Locations
- Log Files Location
- Patching

#### Note:

Refer to Launching Your First Linux Instance documentation before creating the ODI instance.

- Prerequisites
- Selecting Your Product
- Launching Your Oracle Data Integrator Instance
- Connecting to ODI Compute Instance
- Accessing the ODI Compute Instance
- Using Autonomous Databases in ODI
- Installation Locations
- Log Files Location
- Patching



## **1.1 Prerequisites**

Make sure you have the following prerequisites before using Oracle Data Integrator on Oracle Cloud Marketplace:

- Oracle Cloud Account
- Have access to assigned Oracle Cloud Tenant
- Compute node resources within Oracle Cloud Tenant

Go through the following prerequisites carefully before creating the ODI instance:

- Refer to Creating Dynamic Group Polices for compartment, before provisioning ODI and ADB Instances.
- Read thoroughly the password policies provided in the Stack UI and create passwords accordingly during provisioning.
- Wait till the completion of ODI instance creation, check for its status and then proceed working on it.
   For more information, refer to the usage instructions in Launching Your Oracle Data Integrator Instance.

#### **Supported Browsers**

Oracle Cloud Infrastructure supports the latest desktop versions of Google Chrome, Microsoft Edge, Internet Explorer 11, Safari, Firefox, and Firefox ESR. Note that mobile browsers as well as private browsing mode is not supported for Firefox, Internet Explorer, or Edge.

#### Creating an SSH/RSA Key

To work with the Oracle Cloud Infrastructure once the Oracle Data Integrator Compute Node is built, you have to provide a SSH Public Key to allow you to login to the node.

In order to build your SSH keys, perform the following steps:

1. In a terminal window, generate the SSH key using the following command:

\$ ssh-keygen Generating public/private rsa key pair.

2. Enter the path to store this file. By default, this gets saved in your home directory under a hidden folder called .ssh. Change this default location, if required.

```
Enter file in which to save the key (/Users/johndoe/.ssh/id_rsa):
<Return>
```

3. Enter a passphrase using your key.

Enter passphrase (empty for no passphrase): cpassphrase>

4. Re-enter the passphrase to confirm it.

Enter same passphrase again: <passphrase>



5. Check the results.

The key fingerprint (a colon separated series of two digit hexadecimal values) is displayed. Check if the path to the key is correct. In the above example, the path is / Users/johndoe/.ssh/id rsa.pub. You have now created a public and private key pair.

#### **Creating Dynamic Group and Policies**

During ODI Instance provisioning, data servers for all accessible Autonomous Databases (ADB) are automatically created, as long as the dynamic group and policies are created before deploying ODI on Marketplace and are set as mentioned below. Dynamic Group and Policies are required when using the ODI Repository on an Autonomous Database.

• Create a dynamic group to include matching rules for instances in a specified compartment. For example,

```
ALL {instance.compartment.id =
'ocid1.compartment.oc1..aaaaaaaabgr34tpuanpvq6xfb667nsmy2jz45zj6dexojhxdsv
4mjayem3cq'}
```

For more information, refer to Create Dynamic Groups and Policy.

 Navigate to Identity -> Policies -> Create Policy to create policy statements as specified below :

If you set policy at:

 ODI compartment level, then all ADW/ATP instances from the compartment where ODI instance is created are listed.
 For example - To List ADW/ATP instances only from the ODI instance compartment, you have to setup the following policy:

Allow dynamic-group odi\_group to inspect autonomous-database-family in compartment odi Allow dynamic-group odi\_group to read autonomous-database-family in compartment odi Allow dynamic-group odi\_group to inspect compartments in compartment odi

ODI tenant level, then all ADW/ATP instances from all the compartments of the tenancy are listed.
 For example - To list ADW/ATP instances from all the compartments of tenancy, you have to setup the following policy:

```
Allow dynamic-group odi_group to inspect autonomous-database-family
in tenancy
Allow dynamic-group odi_group to read autonomous-database-family in
tenancy
Allow dynamic-group odi group to inspect compartments in tenancy
```

• To configure email delivery service for specified groups on Oracle Cloud Marketplace: An email approved sender must be in a group that has IAM policy permissions to send emails. An approved sender must be in a compartment with permissions to manage approved senders. You have to create a policy to manage approved senders in the entire tenant, if the approved senders exist in root compartment.



Add the following policy statement to enable <code>odi\_group</code> to manage approved senders:

```
Allow dynamic-group odi_group to use approved-senders in compartment odi
```

#### Creating an Oracle Cloud Infrastructure Policy in an Identity Domain

Create a policy to grant permissions to users in a domain group to work with Oracle Integration instances within a specified tenancy or compartment.

#### Note:

This topic applies only to cloud accounts that use identity domains. See About Setting Up Users and Groups.

- 1. Open the navigation menu and click **Identity & Security**. Under **Identity**, click **Policies**.
- 2. Click Create Policy.
- 3. In the Create Policy window, enter a name (for example, IntegrationGroupPolicy) and a description.
- In the Policy Builder, select Show manual editor and enter the required policy statements.

#### Syntax:

- allow group domain-name/group\_name to verb resource-type in compartment compartment-name
- allow group domain-name/group name to verb resource-type in tenancy

**Example**: allow group admin/oci-integration-admins to manage integration-instance in compartment OICCompartment

#### Note:

If you omit the domain name, the default domain is assumed.

This policy statement allows the oci-integration-admins group in the admin domain to manage instance integration-instance in compartment OICCompartment.

You can create separate groups for different permissions, such as a group with read permission only.

Want to learn more about policies? See How Policies Work and Policy Reference, or click **Help** in the window.

 When defining policy statements, you can specify either verbs (as used in these steps) or permissions (typically used by power users).



• The read and manage verbs are most applicable to Oracle Integration. The manage verb has the most permissions (create, delete, edit, move, and view).

Verb Access	
read Includes permission to view Oracle Integration instances and their detail	
manage Includes all permissions for Oracle Integration instances.	

5. If desired, you can add a policy to allow members of the group to view message metrics, as described in Viewing Message Metrics.

For example:

```
allow group oci-integration-admins to read metrics in compartment OICPMCompartment
```

6. If you intend to use custom endpoints, add one or more additional policy statements. Otherwise, skip this step.

Add policies that specify the compartment in which vaults and secrets reside and allow the admin group to manage secrets in it. See Configure a Custom Endpoint for an Instance.

Note that you should specify the resource to return in *resource-type*, as described in Details for the Vault Service. Also note that Oracle Integration requires the read verb only but manage is recommended if the same group will also be administering the secrets (uploading/lifecycle operations).

#### Examples::

- allow group admin/oci-integration-admins to manage secrets in compartment SecretsCompartment
- allow group admin/oci-integration-admins to manage vaults in compartment SecretsCompartment
- 7. Click Create.

The policy statements are validated and syntax errors are displayed.

## **1.2 Selecting Your Product**

To search for the product Oracle Data Integrator on Oracle Cloud Marketplace, enter the product name in the search text box and click **Go**.

From the listings related to Oracle Data Integrator, choose either one of the following.

- **Data Integrator: Classic**: Full ODI functionality for loading data to Oracle Database Cloud Services.
- Data Integrator: Classic BYOL: Full ODI functionality for loading data to other targets.

You are navigated to the respective product listing page which has all the basic usage information along with the product documentation.



#### Note:

The information described in this guide is applicable to Data Integrator: Classic and Data Integrator: Classic BYOL. Oracle Cloud Marketplace also displays listings related to Data Integrator: Web Edition. For instructions about getting started with Data Integrator: Web Edition, see Getting Started with Oracle Data Transforms.

- 1. From your respective product listing page, select Get App.
- 2. Select OCI Region or Login using your Single Sign-On credentials.
  - OCI Region Select the desired region and click Create Stack.
- 3. Provide the OCI tenant details.
- 4. Sign-in to the Identity provider.
- 5. On the Oracle Data Integrator page, provide the following information:
  - a. Type It is Stack by default.
  - **b.** Compartment Specifies the compartment where the compute node will be built. It is generally the location that you have access to build the compute node.
  - **c.** Terms of Use This check-box is selected by default. Oracle recommends to review the licenses before proceeding.
  - d. Launch Stack It launches the stack in the OCI environment. After selecting all the required information, click Launch Stack.

#### Note:

Provisioning your instance on Oracle Cloud Marketplace greatly depends on your product selection. You cannot use the same VM instance for multiple product offerings. The procedure listed below are product specific and may differ based on the product version.

Terminology Information

### 1.2.1 Terminology Information

The Terminology Information used in Oracle Data Integrator Studio are:

Oracle Data Integrator Studio	Functions
Data Server	Represents the physical object where data is stored.
	Examples include Database Instances, File Servers, Cloud Application Instances.The properties contain all information required to connect and access data.



Oracle Data Integrator Studio	Functions
Technology	Examples include Oracle, IBM DB2, Oracle Netsuite, Oracle Object Storage.
	For the list of supported technologies, see Setting Up the Connections.
Physical Schema	Examples include Database Schema, File server Folder, Object Storage Bucket.
Data Store	A Tabular representation of a data structure. Examples include Database Tables, Files.
Reverse Engineering	The process of obtaining the metadata for a filtered set of objects in a Schema. Examples include Table Definitions from an Oracle Schema, VOs from a Cloud Applications Offering.
Model	The container for the imported objects. The properties define the rules for importing (how to filter and so on).
Project	Container for the Transformation Design components (Mappings, Packages, Jobs). This doesn't include Data Servers, Schemas, Data Stores and Folders (which are shared between Projects)
Mapping	The Transformation Design. Defines how data flows from one Data Store to another, and how it is transformed.
Package	Defines the sequence in which Mappings will be executed, together with what happens of failure conditions.
Job / Session	The execution of a Package, Mapping or Reverse Engineer.
Schedule	The rules for when a session executes.
Resource	Something you can schedule (a mapping or package).

## 1.3 Launching Your Oracle Data Integrator Instance

Follow the below procedure to launch your ODI instance: Once you click **Launch Stack**, you are navigated to the **Create Stack** page.

- 1. Fill in the required Stack information:
  - Name Name of the Stack. It has a default name and provides a datetime stamp. You can edit this detail, if required.
  - Description Description that you provide while creating the Stack.
  - Create In Compartment It defaults to the compartment you have selected on the Oracle Data Integrator for Oracle page.
  - Tags (optional) Tags are a convenient way to assign a tracking mechanism but are not mandatory. You can assign a tag of your choice for easy tracking. You have to assign a tag for some environments for cost analysis purposes.



- Click Next.
- 2. Fill in the required details to configure variables. This information is required to build the compute node with Oracle Data Integrator.
  - General Settings
    - a. Networking Options Denotes the networking options in which the Oracle Data Integrator compute instance and all the associated network resources have to be created. Select between two available options:
      - New networking components will be created Select this option to have a new network (VCN) and subnet created and configured alongside this new ODI instance. Minimal inputs are required when you select this option.
      - Existing networking components will be used Select this option to use the existing network components and subnets.
    - b. ODI Repository Location Select between the following options for creating a repository:
      - Create a new ODI Repository in an Autonomous Database
      - Connect to an existing ODI Repository in an Autonomous Database
      - Create an Embedded ODI Repository

#### Note:

Oracle Data Integrator Repositories that you create during provisioning are mode specific. You cannot use a repository created in Oracle Data Transforms mode with a stack in ODI Studio mode and you cannot access a repository created in ODI Studio mode with a stack in Oracle Data Transforms mode.

- c. Resource Display Name Prefix (optional) It is the prefix added to the display name of all the compute and network resources generated . Display name is used to identify all new OCI resources. If you do not specify any prefix, then it is automatically generated.
- **d.** Target Compartment Denotes the target compartment for all the provisioned resources .
- Network Configuration -
  - New networking components will be created
    - a. Virtual Network CIDR (optional) A single, contiguous Virtual Cloud Network (VCN) CIDR block for the VCN. For example: 172.16.0.0/16. You cannot change this value later.

#### Note:

This option is available for both new and existing modes of network creation.

**b.** Create or Use a Public ODI Subnet - It creates all the ODI resources of the newly created instance in a public subnet. This option is

selected by default. If you clear this checkbox, all the ODI resources are created in a private subnet.

- Existing networking components with be used
  - a. Virtual Network CIDR (optional) A single, contiguous Virtual Cloud Network (VCN) CIDR block for the VCN. For example: 172.16.0.0/16. You cannot change this value later.
  - b. VCN Compartment Specifies the VCN compartment where the compute node will be built. It is generally the location that you have access to build the compute node. From the Virtual cloud network compartment drop-down list, select the compartment where your VCN has been setup.
  - c. VCN A VCN is a software-defined network that you set up in the Oracle Cloud Infrastructure data centers in a particular region. Select the desired VCN for the newly created instance. From the Virtual cloud network dropdown list, choose your VCN.
  - d. Subnet Compartment Denotes the subnet compartment to use for the newly created instance if you are not creating a new network. From the Subnet Compartment drop-down list, select the compartment containing the subnet that you wish to use.
  - e. Subnet (optional) Existing subnet to use for the newly created instance if you are not creating a new network. From the Subnet drop-down list, select the subnet you wish to use (you need not change this normally from the default one, when you select the Subnet compartment ).

#### Note:

While creating a subnet, select the option **Use DNS Hostnames in this Subnet**. If you do not select this option you cannot edit the subnet information and as a result of this, stack creation fails. To rectify this, you have to create a different subnet again by enabling this option.

f. Assign Public Address - This option indicates if the newly created VM should have a public IP address. This option is set to True, by default. If you set this to False, no public ip address will be assigned preventing public access to the compute node.

#### Note:

If you are using a private IP address to access the compute node, you have to setup an IPSec VPN or FastConnect connection. Refer to OCI documentation for more details.

- ODI Instance Settings
  - a. ODI Node Shape Shape of new compute instance. Supported shapes are VM.Standard 2.4, VM.Standard 2.8, VM.Standard 2.16 and VM.Standard 2.24. From the Node Shape drop-down list, select the required shape.
  - **b.** SSH Public Key Public Key for allowing SSH access as the 'oracle' user. Refer to Prerequisites section, for more details on creating the SSH Public Key.



- c. ODI Availability Domain It specifies the availability domain for the newly created Oracle Data Integrator Instance. From the Select an Availability Domain for your Instance drop-down, choose an availability domain. If you are using regional subnet in Network Configurations, you can use any of the availability domains from the ODI Availability Domain list.
- d. ODI VNC Password Provide a new password that you will use to connect to the VNC Server on the newly created ODI instance.
- New ODI Metadata Repository Settings -
  - Autonomous Database Instance Select the created Autonomous Database instance from this drop down arrow.
  - Autonomous Database Password Provide the password credentials of the administrator user of the Autonomous Database.
  - Supervisor Password Provide the ODI Supervisor password.

#### Note:

ODI Supervisor password should be 6-12 characters in length and no special characters except \$, # and \_ are allowed.

 Schema Prefix - Specifies the prefix used for the RCU Schemas, used to identify them. For existing repository, provide the prefix configured during repository creation.

#### Note:

A valid prefix should contain only alpha-numeric characters. It should not start with a number and should not contain any special characters. A maximum of 12 characters are allowed.

 Schema Password - Specifies the password used for accessing the RCU Schemas. For existing repository, provide the password configured during repository creation.

#### Note:

Schema password that you provide should :

- \* contain only alpha-numeric characters,
- \* be a minimum of 12 characters in length,
- \* contain at least one alphabet in upper case,
- \* cannot start with a number
- \* no special characters except \$, # and \_ are allowed.

- Load Balancer IP Address -



Note:

This parameter is not available for MYSQL based ODI repository.

If you have a loadbalancer configured for your instance(s), provide the IP address of the loadbalancer in this text box. If there is no loadbalancer, you can leave this field blank and the public IP address is used to register with Autonomous Database.

- 3. Click Next.
- 4. On the Review page, review the information you provided and then click Create.
- 5. When you get a message Provisioning Completed/Successful from the OCI console, the instance is created. However please note the rest of the ODI configuration happens in the background and takes approximately 20 minutes to complete. If you attempt to access ODI prior to this, provisioning will be under progress and you may not view default configurations in ODI Studio. For useful information refer to the job log file.
- 6. After approximately 20 minutes log into the VNC viewer using your <IP address>:1 and check the status of the configuration. To check the status of the configuration, open a terminal window and execute the following command: tail -f \$MW\_HOME/logs/ odiConfigure.log. Upon successful completion, you will get the message ODI Apps started Successfully.. Wait for a few minutes for ODI apps to start up successfully.

#### Note:

This step is applicable only for Advanced administrative users.

- 7. Now the newly created ODI Instance is ready for use. You can now launch ODI Studio to start working on your data integration projects.
- 8. To check the logs, navigate to \$MW HOME/logs/odiConfigure.log.

## 1.4 Connecting to ODI Compute Instance

#### Note:

This section is applicable only for Advanced administrative users.

You can connect to an ODI compute instance by using a Secure Shell (SSH) connection. Most Linux distributions include an SSH client by default. For Windows, you can download a free SSH client called PuTTY from http://www.putty.org.

- 1. To connect to your ODI compute instance from linux,
  - Log in to your instance using SSH.
  - Use the following command to set the file permissions so that only you can read the file:

```
$ chmod 400 <private key>
```



where <private\_key> is the full path and name of the file that contains the private key associated with the instance you want to access.

• Use the following SSH command to access the instance.

```
$ ssh -i <private key> <username>@<public-ip-address>
```

#### where

- <private\_key> is the full path and name of the file that contains the private key associated with the instance you want to access.
- <username> is the default name for the instance. The default user name is oracle.
- <public-ip-address> is your instance IP address that you retrieved from
  the Console.
- 2. To connect to your ODI compute instance from windows,
  - Open putty.exe.
  - In the Category pane, select Window, and then select Translation.
  - In the Remote character set drop-down list, select UTF-8. The default locale setting on Linux-based instances is UTF-8, and this configures PuTTY to use the same locale.
  - In the Category pane, select Session and enter the following:
    - a. Host Name (or IP address):<username>@<public-ip-address>, where <username> is the default name for the instance. For Oracle Linux and CentOS images, the default user name is oracle. For the Ubuntu image, the default name is ubuntu and <public-ip-address> is your instance public IP address that you retrieved from the console.
    - b. Port: 22
    - c. Connection type: SSH
  - In the Category pane, expand Connection, expand SSH, and then click Auth.
  - Click Browse, and then select your private key.
  - Click Open to start the session.

If this is your first time connecting to the compute instance, you might see a message that the server's host key is not cached in the registry. Click **Yes** to continue the connection.

## 1.5 Accessing the ODI Compute Instance

To access ODI apps through VNC, do the following:

1. Log in to the provisioned Oracle Data Integrator instance on Oracle Cloud Marketplace using SSH as opc user:

ssh -i <private key> opc@<IP Address>



2. Execute the following firewall commands to open the VNC ports:

```
sudo firewall-cmd --permanent --new-service=odissh
sudo firewall-cmd --permanent --service=odissh --set-description="ODI
SSHserver"
sudo firewall-cmd --permanent --service=odissh --add-port=5901-5905/tcp
sudo firewall-cmd --permanent --add-service=odissh
sudo firewall-cmd -reload
```

- 3. Install a VNC viewer on your local computer.
- 4. Use SSH to connect to the compute instance running the Oracle Data Integrator Image, as described in Connecting to ODI Compute Instance .
- On your local computer, connect to your instance and create a ssh tunnel for port 5901 (for display number 1):

\$ ssh -L 5901:localhost:5901 -i id rsa oracle@<IP Address>

6. On your local computer, for the VNC to work, add an Ingress rule as follows:

No 0.0.0/15 TCP All 5901 TCP traffic for ports: 5901

- 7. On your local computer, start a VNC viewer and establish a VNC connection to localhost:1.
- 8. Enter the VNC password that you had provided during the stack creation.
- 9. For connecting multiple users, after the vncpasswd utility exits, start the VNC server by typing vncserver. This will start a VNC server with display number 1 for the oracle user, and the VNC server starts automatically if your instance is rebooted. For example vncserver@:2 or vncserver@:3.

To start developing your data flows or data mappings/transformations, launch studio from the available options.

 From the Applications menu, navigate to Programming -> ODI Studio, or

Double click the short icon for ODI Studio present in your Desktop, or

Navigate to the location \$MW HOME/oracle/odi/studio/bin/odi in the VNC.

- Connect to the repository with already populated login credentials. The Login Name value varies based on the selected repository. For ADB repository, the Login Name is ODI ADW REPO and for MySQL Embedded repository it is ODISA MYSQL.
- Post successful configuration, click Topology navigator -> Technologies -> Oracle to check if the newly created data server is available for use.
- 4. In ODI studio, navigate to Topology -> Physical Architecture -> Agent -> OracleDIAgent1 and click Test, to check if the Standalone Agent is working.

#### Note:

For more details on services, refer to Managing ODI App Server.



5. Click Test connection, to check if the created ADB Data Server is working.

## 1.6 Using Autonomous Databases in ODI

The newly created repository for Oracle Data Integrator will be pre-populated with Oracle Data Servers representing all accessible Autonomous Databases based on defined policies. If you aim to use any of these as a part of your Oracle Data Integrator transformations, then you have to add the username and password to the Data Server properties in the Topology tab in Oracle Data Integrator Studio.

If, at a later date, more Autonomous Databases become available to you, you can use the "Discover ADB's" feature available in Create New Data Server on Oracle Technology of Oracle Data Integrator Studio, to quickly setup the additional instances that were not available at the time when the instance was created. When you select the required ADB instance from displayed instance list, the wallet gets auto downloaded and once you provide the Data Server name, credentials and then select connection details/service profiles and save, the new Oracle Dataserver for the selected ADB instance is created.

Follow the below procedure to create an Autonomous (ADB) Data Server in Oracle Data Integrator repository:

- Connecting to the Pre-created ADB Dataservers in ODI Repository
- Using Dataserver Setup in ODI Studio
- Manually Registering the Created ODI Instance to Autonomous Database
- Connecting to the Pre-created ADB Dataservers in ODI Repository
- Using Dataserver Setup in ODI Studio
- Manually Registering the Created ODI Instance to Autonomous Database

## 1.6.1 Connecting to the Pre-created ADB Dataservers in ODI Repository

Connect to the readily available or pre-created ADB dataservers in ODI studio. You have to add actual username and password by connecting to the dataserver, do a test connection and continue with your data integration project in ODI studio.

#### Note:

You need to provide the username and password for the created instance as prepopulated login credentials may not work.

### 1.6.2 Using Dataserver Setup in ODI Studio

You can create additional ADB Dataservers using the Oracle technologies Dataserver setup in ODI Studio.

Navigate to the Topology navigator, expand the Technologies node in the Physical Architecture navigation tree and under Oracle technology, select any pre-created ADB Dataserver.



- 1. In the Definition tab, click Discover ADBs. The list of available ADB instances are displayed.
- 2. Select the required ADB instance from the Discover Autonomous Databases drop-down list.

Upon selection, **Use Credential File** checkbox is auto-selected in the connection node.

In the Credential Details node, **Credential File** text box is auto-populated with the respective mapped credential file.

Figure 1-1 Discover ADBs

3 Start Page × ⊕ DB202003100909-1359.ADP06_IAU_APPEND × ☺			
Test Connection Discover	Test Connection Discover ADBs		
<b>Definition</b> JDBC	🕽 Data Server		
On Connect/Disconnect	Name:		
Datasources Version	Instance / dblink (Data S	Server):	
Privileges	Connection		
Flexfields	User:		
	Password:		
	JNDI Connection	✓ Use Credential File	
	🗆 Crendential Detail	5	
	Credential File:	/u01/oracle/mwh/odi/sdk/lib///wallets/wallet_ODIDEVADW1.zip	
	Connection Details:		
	Use Http Proxy		
Overview] 4	Arrav Fetch Size: 30	Batch Update Size: 30 Decree of Parallelism for Tarcet:	

- 3. In the Data Server node,
  - Name: Enter the name of the newly created data server.
  - Instance/dblink(Data Server): TNS Alias used for this Oracle instance. It will be used to identify the Oracle instance when using database links and SQL\*Loader.
- 4. In the Connection node,
  - User/Password: Oracle user (with its password), having select privileges on the source schemas, select/insert privileges on the target schemas and select/insert/ object creation privileges on the work schemas that will be indicated in the Oracle physical schemas created under this data server.
  - JNDI Connection: Select this check-box to configure the JNDI connection settings. Navigate to the JNDI tab, and fill in the required fields.
- 5. In the Credentials Details node,
  - Connection Details Click the Connection Details drop down arrow to choose the required connection URL from the list of available connection URLs retrieved from tnsnames.ora.
- 6. Click Test Connection.

Upon successful test connection, the new Dataserver gets created in the ODI repository.



## 1.6.3 Manually Registering the Created ODI Instance to Autonomous Database

If you wish to manually register the ODI instance to Autonomous Database after creating your instance,

- Connect to the compute instance running the Oracle Data Integrator Image, as described in Connecting to ODI Compute Instance .
- Navigate to your ODI studio desktop and double click the **Register with ADP** shortcut icon.

A terminal window appears allowing you to enter the following details of the Autonomous Database instance which you had already created in Launching Your Oracle Data Integrator Instance step:

- Admin username User name of the Autonomous Database instance.
- Admin password Password of the Autonomous Database instance.
- URL Scheme Press Enter to select the default value http.
- IP Address IP address of the computer which you wish to register to Autonomous Database.

#### Note:

You are prompted to provide all the above details repeatedly until you provide a valid IP address.

After configuring the above details, the created instance is successfully registered to the Autonomous Database. After successful registration, you can launch Oracle Data Transforms directly from the Autonomous Database, Database Actions page.

#### Note:

In some cases, you may encounter an error ("401 Not Authorised") when launching Oracle Data Transforms from the Database Actions page. To resolve this issue, you will need to restart the Jetty server.

## **1.7 Installation Locations**

Please note, the following installation locations are used by this image. You may need this information if you want to change any aspects of the installation:



Area	Location on Server
MW_HOME	/u01/oracle/mwh
ODI_HOME	MW_HOME+"/odi"
OPatch Home	\$MW_HOME/OPatch
MySQL Home	\$MW_HOME//mysql_home

Table 1-1 Installation Locations

## 1.8 Log Files Location

The following log files help you to keep a track record on all the events happening in your ODI instance on Oracle Cloud Marketplace:

Log Files	Location
ODI Image Creation Logs	/u01/oracle/logs/odi_install_config.log
ODI Configuration Logs	/u01/oracle/logs/odiConfigure.log
ODI Agent Logs	\$MW_HOME/app_logs/odiagent.log
ODI Rest Logs	\$MW_HOME/app_logs/odi_adp_rest_txt.log
ODI Studio Logs	\$MW_HOME/odi/log/studio.log

## 1.9 Patching

The ODI image on the Oracle Cloud Marketplace contains an Enterprise installation of ODI.

Patching is manual using OPatch.

You can upgrade your existing ODI image to the latest version available on the Oracle Marketplace directly, by either reusing your existing repository database or by creating a new repository database.

# Note: Before upgradation backup your work (db export), create a new instance and then restore (db import) it, to proceed with your upgradation process. Patching an Existing ODI Marketplace Instance

To manually patch an existing ODI marketplace instance,

**1.** Log in to your instance using SSH.

```
$ ssh -i <private key> opc @<public-ip-address>
```



2. Use the following command to change the user access to root

\$ sudo su

3. Navigate to the location /etc/security and locate the file limits.conf, to modify the ulimit parameter using the following commands:

vi /etc/security/limits.conf

Add the following lines before the end of the file:

```
oracle soft nofile 8192
oracle hard nofile 8192
oracle soft nproc 4096
oracle hard nproc 8192
oracle soft core unlimited
oracle hard core unlimited
opc soft nofile 8192
opc hard nofile 13072
```

- 4. Save changes and exit the file.
- 5. Use the following command to change the user access to oracle

sudo su - oracle

6. Run OPatch to apply the patch.

\$ opatch apply

To upgrade an existing repository,

#### **Prerequisites**

Navigate to the location cd /u01/oracle/mwh/odi/common/scripts and get the schema password and superivsor password using the following commands:

```
python manageCredentials.py read odiSchemaPassword
python manageCredentials.py read odiSupervisorPassword
```

For more details on running the Upgrade Assisstant, refer to Upgrading Product Schemas Using the Upgrade Assistant.

#### To upgrade your ADW Instance

#### Without SSL:

Follow the below procedure for running Upgrade Assisstant on your ADW instance without SSL:

Export TNS ADMIN=<wallet extracted path>, for example -

/u01/oracle/mwh/wallets/wallet DB20200310xxxx



• Run Upgrade Assistant for the repository using the following commands:

```
$cd mwh/oracle_common/upgrade/bin
$./ua
```

#### Note:

For Database connect string, enter a short URL during upgrade process. For example - db20200310xxxx\_low. You can get this short URL from the file tnsnames.ora available in the wallet.

#### With SSL:

Follow the below procedure for running Upgrade Assisstant on your ADW instance with SSL:

• Export TNS ADMIN=<wallet extracted path>, for example -

/u01/oracle/mwh/wallets/wallet DB20200310xxxx

• Export UA PROPERTIES, for example -

export UA PROPERTIES="-Dua.SSL DB CONNECTIONS.enabled=true"

• Run Upgrade Assistant for the repository using the following commands:

```
$cd mwh/oracle_common/upgrade/bin
$./ua
```

#### Note:

For Database connect string, enter a short URL during upgrade process. For example -

```
(description= (retry_count=20) (retry_delay=3)
(address=(protocol=tcps) (port=<port_number>) (host=<host_name>))
(connect_data=(service_name=<service_name>))
(security=<ssl_certificate>))
```

You can get this short URL from the file tnsnames.ora available in the wallet.

- Use TNS\_Connect as Database connect string after running Upgrade Assistant.
- Click SSL Settings and modify the following parameters:
  - From the **TrustStore Type** drop-down menu, select **SSO**.
  - Beside to the TrustStore Location text box, click Browse to search and select the location of the cwallet.sso wallet file.
  - From the **KeyStore Type** drop-down menu, select **SSO**.
  - Beside to the KeyStore Location text box, click Browse to search and select the location of the cwallet.sso wallet file.



- Leave **TrustStore Password** and **KeyStore Password** fields blank.
- Click Close.

#### Note:

Your existing repository is upgraded automatically when you create a new ODI Marketplace instance.

#### To upgrade your MySQL Instance

Follow the below procedure for running Upgrade Assistant on your MySQL instance:

• Run Upgrade Assistant for the repository using the following commands:

```
$cd mwh/oracle_common/upgrade/bin
$./ua
```

• Configure Database connect string parameter as follows:

```
Database URL - //localhost:3307/sys
DBA user - public
```

Note:

Public password configured above is same as schema password.

## 2 Migrating from Oracle Data Integrator Cloud Services to Oracle Data Integrator Marketplace

This chapter describes how to migrate the Oracle Data Integrator repository of Oracle Data Integrator Cloud Service (ODI-CS) to Oracle Data Integrator on Marketplace at the database level, using Data Pump.

This chapter contains the following sections:

- Exporting the ODI-CS Repository
- Provisioning DBaaS
- Provisioning ATP
- Provisioning ODI Marketplace
- Installing the required ODI version in ODI Marketplace node
- Creating an ODI Repository in DBaaS
- Importing the ODI Repository into the DBaaS node
- Verifying access to the DBaaS ODI Repository in ODI Studio
- Upgrading the Repository
- Exporting the Migrated Repository
- Importing the Migrated Repository into ATP
- Verifying access to the Migrated Repository in ODI Marketplace Studio

#### Note:

Migration using data pump should only be done when the repository is very large. For smaller repositories, a standard export/import is enough. For more information on exporting/importing repositories, refer Repository-Level Export/Import section of *Developing Integration Projects with Oracle Data Integrator*.

- Exporting the ODI-CS Repository
- Provisioning DBaaS
- Provisioning ATP
- Provisioning ODI Marketplace
- Installing the required ODI version in ODI Marketplace node
- Creating an ODI Repository in DBaaS
- Importing the ODI Repository into the DBaaS node



- Verifying access to the DBaaS ODI Repository in ODI Studio
- Upgrading the Repository
- Exporting the Migrated Repository
- Importing the Migrated Repository into ATP
- Verifying access to the Migrated Repository in ODI Marketplace Studio

## 2.1 Exporting the ODI-CS Repository

You can export the ODI-CS repository using SQL Developer (Data Pump Wizard) or with the following OS-line command:

expdp SYSTEM/<PASSWOD>@<TNS\_NAME> schemas=<SCHEMA\_NAME> directory= DATA\_PUMP\_DIR\_PDB dumpfile=<DUMP\_FILE\_NAME > logfile=<LOG\_FILE\_NAME>

## 2.2 Provisioning DBaaS

Follow the provisioning Wizard for DBaaS System and Database as described in the below section:

https://docs.cloud.oracle.com/en-us/iaas/Content/Database/Tasks/ creatingDBsystem.htm

The DBaaS version should be the same as the DBCS version used in ODI-CS.

## 2.3 Provisioning ATP

Refer to the tutorial, Getting Started and Provisioning Autonomous Transaction Processing for detailed steps on how to provision ATP.

## 2.4 Provisioning ODI Marketplace

For detailed information on provisioning ODI Marketplace, see Launching Your Oracle Data Integrator Instance.

After provisioning, the standalone agent is available by default. It is possible to switch the standalone agent (that comes with ODI Marketplace) to point to the new repository. However, if a standalone collocated/weblogic agent is required, it has to be installed separately. For more information on setting up a standalone collocated agent, see Creating a Standalone Collocated Agent.

# 2.5 Installing the required ODI version in ODI Marketplace node

The ODI version installed in the ODI Marketplace node must be the same as that used in ODI-CS.

Follow the below steps to install the required ODI version in the ODI Marketplace node:

**1**. Use SSH to connect to the ODI Marketplace node.



- 2. Create a new directory and download the required ODI version into this directory.
- 3. Unzip the files and run the ODI installer.
- 4. In the Welcome screen, click Next.
- 5. In the Auto Updates screen, select Skip Auto Updates. Click Next.
- In the Installation Location screen, specify the Oracle Home using the directory you created for ODI. Click Next.
- In the Installation Type screen, leave the default selected "Standalone Installation" as it is and click Next.
- 8. In the Prerequisite Checks screen, click **Next** when the prerequisite check is 100% complete.
- In the Security Updates screen, uncheck the security updates option and click Next.
- 10. Click **Yes** in the warning dialog box. This is a temporary installation, so we do NOT need to connect to support.
- 11. In the Installation Summary screen, verify the installation information and click Install.
- **12.** In the Installation Progress screen, you can see the progress of the process. This might take several minutes. Once all tasks are successfully finished, click **Finish**.

### 2.6 Creating an ODI Repository in DBaaS

You can create an ODI repository in DBaaS using the repository creation utility (rcu). The repository version must be the same as that used in ODI-CS.

Follow the below steps to create an ODI repository in DBaaS with rcu:

- 1. Navigate to the \$MW HOME/oracle common/bin directory.
- 2. Execute rcu to create a new (empty) repository.
- 3. In the Welcome screen, click Next.
- In the Create Repository screen, accept the default values and click Next.
- 5. In the Database Connection Details screen, provide your DBaaS connection information. Note that a user with DBA or SYSDBA privilege is required (for example, SYS).
- 6. Once all the pre-requisites are verified, click **OK**.
- 7. In the Select Components screen, leave all defaults and select **Oracle Data Integrator**. Click **Next**.
- 8. Once all the pre-requisites are verified, click **OK**.
- In the Schema Passwords screen, enter a password and verify it. Please make a note of this password as you will need it later in the process. Click Next.
- In the Custom Variables screen, enter a Supervisor password and Work Repository password.

The Supervisor password should be 6 - 12 characters in length and can contain special characters "#" or "\_". The Work Repository password should be 0 - 10 characters in length and can contain special characters "#" or "\_". Please make a note of these passwords as you will need them later in the process.

- **11.** In the Map Tablespaces screen, click **Next**.
- **12.** In the confirmation window, click **OK**.



- **13.** Once tablespaces are created, click **OK**.
- **14.** In the Summary screen, click **Create**.
- **15.** A screen that will allow you to follow the progress of the different tasks will appear. Once all tasks are finished, a new screen will appear. The new screen will show the status of all tasks. Click **Close**.

## 2.7 Importing the ODI Repository into the DBaaS node

Follow the below steps to import the ODI repository into the DBaaS node:

- 1. Use SSH to connect to the DBaaS node into which you will import the ODI repository.
- 2. Execute the following impdp command:

```
impdp SYSTEM/<PASSWORD>@<DBBaaS_system> schemas=DEV_ODI_REPO
directory=DATA_PUMP_DIR_PDB_dumpfile=<DUMP_FILE_NAME>
logfile=<LOG_FILE_NAME> TABLE_EXISTS_ACTION=REPLACE
```

Please ensure that the TABLE EXISTS ACTION option is included in the command.

# 2.8 Verifying access to the DBaaS ODI Repository in ODI Studio

Follow the below steps in order to verify access to the DBaaS ODI repository in ODI Studio :

- 1. Navigate to the \$MW HOME/odi/studio directory.
- 2. Execute odi.sh.
- 3. In the Confirm Import Preferences screen, click No.
- 4. Click **Connect to Repository** available on the left panel.
- 5. On the Oracle Data Integrator Login screen, click the plus sign (+) icon to add the repository. The Repository Connection Information screen appears.
- 6. Specify the Oracle Data Integrator connection details as follows:
  - a. Login Name: Specify a custom login name. You can provide a name that will remind you of the purpose of this repository.
  - **b. User**: **Specify SUPERVISOR**.
  - c. Password: The password of your original ODI repository.
- 7. Specify the Database Connection (Master Repository) details as follows:
  - a. User: The schema owner (in the newly created repository).
  - b. **Password**: The password of the schema owner.
  - c. Driver List: Select Oracle JDBC Driver from the drop-down list.
  - d. Driver Name: This is automatically populated to 'oracle.jdbc.OracleDriver'.
  - e. URL: Specify the connection URL. The connection URL should be in the following format: jdbc:oracle:thin:@<host>:<port/ServiceName>.
- 8. Click **Test** to test the connection to the repository.



- 9. On receiving a successful connection message, click **OK**.
- 10. Click OK in the Repository Connection Information screen.
- 11. In the Oracle Data Integrator Login screen, click **OK**.
- 12. Navigate to the Topology tab on the left panel.
- **13.** Expand the **Work Repositories** node and double-click **WORKREP**. You will receive an error message. Click **OK**.
- 14. To change the connection information to the DBaaS repository, click on the plug icon in the top left corner of the screen.
- **15.** Provide the database user (DBaaS) for the repositories and its password. Then click on the **JDBC** link on the left pane.
- 16. Provide the connection URL to the DBaaS server and click Test Connection.
- 17. Click Yes in the confirmation window.
- **18.** Click **Test** to test the connection to the repository. Please ensure that you do not change the agent specified here.
- 19. On receiving a successful connection message, click OK.

## 2.9 Upgrading the Repository

Follow the below steps to upgrade the repository:

- Navigate to the \$MW\_HOME/oracle\_common/upgrade/bin directory in the ODI Marketplace node.
- Execute the upgrade tool.
- 3. In the Welcome screen, click Next.
- 4. In the Selected Schemas screen, select Individually Selected Schemas. Click Next.
- In the Available Components screen, select Oracle Data Integrator. Click Next.
- 6. In the Prerequisites screen, select all the check boxes and click Next.
- In the ODI Schema screen, provide the connection information to the DBaaS repository and click Connect. Please note that a user with DBA privileges is required in your DBaaS system.

If the connection is successful, the schema user will appear in the Schema User Name field. In this case, the schema user is DEV ODI REPO.

- 8. Provide the password for the schema user and click Next.
- 9. In the ODI Options screen, leave all the defaults and click **Next**.
- 10. In the ODI Supervisor screen, provide the Supervisor user and its password. Click Next.
- **11.** The system will then examine the repository and determine if it is ready for upgrade. Once the examination is complete, click **Next**.
- 12. Verify the summary and click **Upgrade** in the Upgrade Summary screen.
- **13.** You can view the status of the upgrade process in the Upgrade Progress screen. Once this is finished, click **Next**.
- 14. Click Close in the Upgrade Success screen.



## 2.10 Exporting the Migrated Repository

You can export the migrated repository using SQL Developer (Data Pump Wizard) or with the following OS-line command:

expdp SYSTEM/<PASSWOD>@<TNS\_NAME> schemas=<SCHEMA\_NAME> directory= DATA PUMP DIR PDB dumpfile=<DUMP FILE NAME > logfile=<LOG FILE NAME>

Please note that you need to use DATA\_PUMP\_DIR\_PDB in the command, and not DATA PUMP DIR.

## 2.11 Importing the Migrated Repository into ATP

To import the migrated repository into ATP, do the following:

- 1. Upload the exported upgrade repository to Object Storage, so that it can be accessed from ATP.
- Create credentials in your ATP system so that you can access your Object Storage:

```
BEGIN
    DBMS_CLOUD.PUT_OBJECT(credential_name => 'ODI_MIG',
        object_uri => 'https://objectstorage.us-
phoenix-1.oraclecloud.com/n/<NAMESPACE>/b/<BUCKET_NAME>/o/<
DUMP_FILE_NAME>',
        directory_name => 'DATA_PUMP_DIR',
        file_name => '<DUMP_FILE_NAME>');
END;
/
```

 You can import the file using SQL Developer (Data Pump Wizard) or with the following OS-line command:

```
impdp ADMIN/<PASSWORD>@<TNS_NAME> directory=data_pump_dir
credential=ODI_MIG dumpfile=https://objectstorage.us-
phoenix-1.oraclecloud.com/n/orasenatdpltinfomgmt01/b/MAGU_Bucket/o/
MIG_ODI_REPO.dmp parallel=16 partition_options=merge
table_exists_action=REPLACE transform=segment_attributes:n
transform=dwcs_cvt_iots:y transform=constraint_use_default_index:y
exclude=index,cluster,indextype,materialized_view,materialized_view_lo
g,materialized_zonemap,db_link
REMAP_SCHEMA=<SOURCE_SCHEMA>:<TARGET_SCHEMA>
```

#### Note:

This procedure is only applicable for ATP-D.



# 2.12 Verifying access to the Migrated Repository in ODI Marketplace Studio

Follow the below steps to verify access to the migrated repository in ODI Marketplace Studio:

- Once the repository has been successfully imported, start ODI Studio in your new ODI Marketplace node.
- Click Connect to Repository available on the left panel. The Oracle Data Integrator Login screen appears.
- **3.** To modify the repository connection information, click on the pencil icon. The Repository Connection Information screen appears.
- 4. Modify the repository connection information as follows:
  - a. **Password** (for SUPERVISOR): Change the Supervisor password to the one you had in your original ODI repository in the Oracle Data Integrator Cloud Service.
  - b. Use Credential File: Select the check box.
  - c. Credential File: Browse and select the wallet file in /home/opc directory.
  - d. Connection Details: Select your low connection.
  - e. Work Repository: Select Master Repository Only.
- 5. Click Test Connection.
- 6. On receiving a successful connection message, click OK.
- 7. Click OK in the Repository Connection Information screen.
- 8. In the Oracle Data Integrator Login screen, click **OK**.
- 9. Navigate to the **Topology** tab on the left panel.
- 10. Open the Repositories panel.
- 11. Expand the Work Repositories node and double-click WORKREP.
- **12.** To change the connection information to the ADB repository, click the **Connection Information** button on the top left corner of the screen.
- **13.** Provide the database user (ADB) for the repositories and its password. Then click the **JDBC** link on the left pane.
- **14.** Provide the connection URL to the ADB server in the JDBC URL field and click **Test Connection**.
- 15. In the confirmation window, click Yes.
- 16. Click Test. Ensure that you do not change the Physical Agent specified here.
- 17. On receiving a successful connection message, click OK.
- **18.** Disconnect from the repository by clicking on the unplug icon.
- **19.** Click **Connect to Repository** available on the left panel. The Oracle Data Integrator Login screen appears.
- **20.** To repoint the work repository, click on the pencil icon. The Repository Connection Information screen appears.



- **21.** Select the **Work Repository** radio button at the bottom of the screen. Then click on the magnifying glass on the right side.
- 22. Select the work repository that is displayed in the Select Repository screen and click **OK**.
- 23. Click **OK** in the Repository Connection Information screen. You are now in your repository in ODI Marketplace.



## A Creating a Standalone Collocated Agent

This appendix describes how to create a standalone collocated agent.

Setting up a standalone collocated agent involves the following steps:

- Installing the Agent
- Defining the Agent in ODI
- Starting the Agent
- Installing the Agent
- Defining the Agent in ODI
- Starting the Agent

## A.1 Installing the Agent

Follow the below steps to install the standalone collocated agent:

**1.** Verify that the existing standalone agent is down by running the following command:

```
sudo systemctl status -l agentodi.service
```

If the service is still active (up and running), use the following command to stop it: sudo systemctl stop agentodi.service

2. Navigate to the following directory:

\$MW\_HOME/oracle\_common/common/bin

3. Start the Configuration Wizard by running the following command:

./config.sh

- 4. In the Create Domain screen, select Create a new domain and specify \$MW\_HOME/ user projects/domains/odisac domain in the Domain Location field. Click Next.
- 5. In the Templates screen, select Oracle Data Integrator Standalone Collocated Agent [odi]. This will automatically select other options. Click Next.
- 6. In the Administrator Account screen, provide the following information and click Next:
  - a. Name: By default, weblogic is specified.
  - b. Password: Specify a password for the weblogic user.
  - c. Confirm Password: Retype the password.
- 7. In the Domain Mode and JDK screen, select **Production** in the Domain Mode field and verify that you are pointing to the right JDK path "/u01/oracle/jdk1.8.0\_191". Click Next.
- 8. 8. In the Database Configuration Type screen, provide the following information:
  - a. Host Name: Name of the server where the repository database is stored.
  - b. **DBMS/Service**: Service name of the database where the repository is stored.



- c. Port: Port where the database where the repository is stored is running (1521).
- d. Schema Owner: Login owner of all ODI schemas. Leave the default as DEV\_STB.
- e. Schema password: Password for ODI schemas provided in previous steps.
- 9. Click Get RCU Configuration. This will verify the connectivity to the database.
- **10.** Once connectivity has been successfully verified, click **Next**.
- **11.** In the Component Datasources screen, click **Next**.
- 12. In the JDBC Component Schema Test screen, you can see the progress of the status verifications in all components. Once all have green check marks, click **Next**.
- 13. In the Advanced Configuration screen, select Node Manager and System Components. Click Next.
- 14. In the Node Manager screen, provide the following information and click Next:
  - a. Username: Specify weblogic.
  - b. Password: Provide the password for the weblogic user.
  - c. Confirm Password: Confirm the password.
- 15. In the System Components screen, accept the defaults and click Next.
- **16.** In the ODI Server Configuration screen, provide the Supervisor user password. Leave all other default values and click **Next**.
- In the Machines screen, select the Unix Machine tab. Click Add. Leave all defaults and click Next.
- **18.** In the Assign System Components to Machines screen, leave all default values and click **Next**.
- **19.** In the Configuration Summary screen, you can review all your choices. Click **Create**.
- 20. As the tasks progress, a green check will appear. This means that the tasks finished successfully. Once it finishes, click **Next**.
- 21. In the End of Configuration screen, click Finish.

## A.2 Defining the Agent in ODI

Follow the below procedure to define the agent:

- 1. Log into ODI Studio.
- 2. On the **Topology** tab, expand **Physical Architecture**. Right-click **Agents** and select **New Agent**.
- 3. On the **Agent** panel, on the **Definition** tab, in **Name**, enter the name for the new agent. Save the configuration.
- 4. On the **Topology** tab, expand **Logical Architecture**. Right-click **Agents** and select **New Logical Agent**.
- 5. On the Logical ODI Agent panel, on the Definition tab, in Name, enter the name for the new agent.
- 6. Select **Global** as the context. Save the configuration.



## A.3 Starting the Agent

Follow the below procedure to start the standalone collocated agent:

- Navigate to the following directory: \$MW\_HOME/user\_projects/domains/odisac\_domain/bin
- 2. Start the agent by executing the following command:

nohup ./agent.sh -NAME=OracleDIAgent1 &

- 3. Execute the tail nohup.out command.
- 4. Start ODI Studio by running odi.sh available in the <code>\$MW\_HOME/odi/studio/ directory.</code>
- 5. In the **Topology** tab, open the required agent and click **Test**.
- 6. On receiving a successful test message, click **OK**.



## B Importing the ODI Repository dump

This appendix describes how to import the ODI repository dump.

# Note: Please contact your database administrator to perform the following procedure for importing the ODI repository. Follow the below steps to import the ODI repository dump: Start SQL Developer. Define a connection on avaitation on avaitation on avaitation.

- 2. Define a connection as SYS to the DBaaS system that has the new ODI repository and connect. Please ensure that you connect to the pluggable database and NOT to the container database.
- 3. Create the DATA\_PUMP\_DIR\_PDB directory, and point it to a directory in the DBaaS system into which you will import your ODI-CS repository dump file.
- 4. Define a connection as SYSTEM to the DBaaS system that has the new ODI repository and connect. Using this connection, open the **DBA** panel.
- 5. Expand the **Data Pump** node, right-click **Import Jobs** and select **Data Pump Import Wizard**. This opens the Import Wizard.
- 6. In the Type screen, provide the following information:
  - a. Data or DDL: Select Data Only from the drop-down list.
  - b. Type of import: Select Schemas.
  - c. Credentials or Directories: Specify DATA\_PUMP\_DIR\_PDB.
  - d. File Names or URI: Enter the name of the dump file.
- 7. Click Next.
- 8. In the Filter screen, select **ODI\_REPO** from the Available source schemas window and click the right arrow to move it to the Selected source schemas window. Click **Next**.
- 9. In the **Re-Map Schemas** section of the Remapping screen, provide the mapping from the ODI\_REPO schema to import to the schema in your DBaaS. Click Next. If all defaults were taken during repository installation, the name will be DEV\_ODI\_REPO.
- In the Options screen, fill in the details according to the way you performed the export. Click Next.
- **11.** In the Schedule screen, leave all the defaults. Click **Next**.
- **12.** In the Summary screen, click **Finish** to start the import process.



Note: This procedure is only applicable for ATP-D.

