Creating a connection to Oracle Autonomous Database in Informatica Intelligent Data Management Cloud (IDMC)

Authors: Eddy Widjaja (Informatica), Vijay Balebail (Oracle)
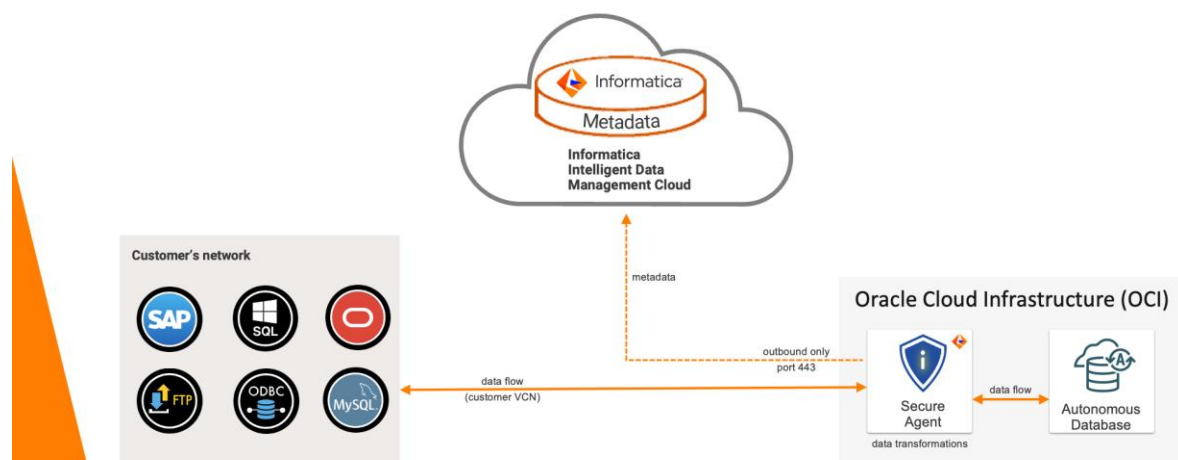
Date: 15 Dec 2022

This document provides an overview of the configuration steps to create a connection in IDMC to Oracle Autonomous Database (OADB) as target endpoint.

There are two parts to IDMC.
- The control plane where you design mappings or data pipeline. The mapping metadata resides within the control plane repository in IDMC.
- The second part is the execution plane. The execution plane is the secure agent which resides in customer's premises or in Oracle Cloud (OCI). The secure agent is the processing engine that read from data source, perform transformations, and write to the target.

The diagram below provides an architecture overview.

Step 0:

1. Sign up for IDMC [trial organization](#)
2. Deploy a [secure agent](#) from OCI Marketplace
3. Provision Oracle Autonomous Database. See [Oracle documentation](#).
   - Save wallet.zip file in a safe location
   - Make a note of the ADB and wallet passwords and use it when you configure Oracle ADB connection

Step 1:

1. Upload the wallet.zip file to the secure agent machine
2. [Download Oracle Instant Client](#), and then upload it to the secure agent machine

Recommendation:
- Create a folder called oracle (e.g. /home/infa/oracle) and put wallet and instant client files into that folder

Notes:
- Deploying a secure agent from OCI Marketplace will provision a Linux machine with a secure agent configured.
- Secure agent is installed with 'infa' Linux user and group.
- Default login to Linux machine uses 'opc' Linux user. If wallet and Instant client files are uploaded using 'opc' user, make sure 'infa' user has read access to those files.
- If there are multiple secure agent deployed, this step needs to be repeated for each secure agent.

Step 2:

1. Unzip instant client .zip file. Extracted files should be in /home/infa/oracle/instantclient
2. Unzip wallet .zip file. Extracted files should be in /home/infa/oracle/Wallet_xxx
3. Edit sqlnet.ora file in wallet folder and replace "?/network/admin" with the name of the folder containing the wallet file. Example:

```
WALLET_LOCATION = (SOURCE = (METHOD = file) (METHOD_DATA =
(DIRECTORY="/home/infa/oracle/Wallet_DB202212151000")))
SSL_SERVER_DN_MATCH=yes
```

4. Copy sqlnet.ora and tnsnames.ora from wallet directory to instantclient/network/admin folder.

Step 3:

1. Login Informatica Intelligent Data Management Cloud.
2. Select Administrator.
3. Click Connections and then New Connection.
4. Configure the connection using the following properties:

Property	Description
Connection Name	Name for the connection

Description	Description
Type	Oracle
Runtime Environment	Select the secure agent group where the wallet and instant client reside.
Oracle Subtype	Select Oracle ADB
User Name	Username for Oracle ADB instance
Password	Password for Oracle ADB instance
Host	ADB hostname; from tnsnames.ora file
Port	ADB port number; from tnsnames.ora file
Service Name	ADB service name; from tnsnames.ora file
Code Page	UTF-8
Encryption Method	SSL Auto
Crypto Protocol Version	TLSv1.2
Validate Server Certificate	False
Trust Store	Directory path and filename to cwallet.sso file
Trust Store Password	password for the wallet
Key Store	Directory path and filename to cwallet.sso file
Key Store Password	password for the wallet
Key Password	password for the wallet

5. Click Save.
6. Click Test Connection to make sure all fields are entered correctly and test result is successful.

The screenshot below shows an example of successfully configured Oracle ADB connection.

OCI_Oracle_ADB

[Test Connection]   [Edit]   ⊗

✓ The test for this connection was successful.

Connection Details

Connection Name:	OCI_Oracle_ADB
Description:	
Type:	Oracle
Created On:	Dec 15, 2022 1:47:47 PM
Updated On:	Dec 15, 2022 1:48:15 PM
Created By:	ecosystems@infa.com
Updated By:	ecosystems@infa.com

Oracle Connection Properties (?)

Runtime Environment:	SAG_OrLnx_2
Oracle Subtype:	Oracle ADB
User Name:	ADMIN
Password:	********
Host:	adb.us-ashburn-1.oraclecloud.com
Port:	1522
Service Name:	gddcdc5b5db156e_wvkwllcxzqiyhsgi_high.adb.oraclecloud.com
Schema:	
Code Page:	UTF-8
Encryption Method:	SSL Auto
Crypto Protocol Version:	TLSv1.2
Validate Server Certificate:	False
Trust Store:	/home/infa/oracle/Wallet_WVKWLLCXZQIYHSGI/cwallet.sso
Trust Store Password:	********
Host Name in Certificate:	
Key Store:	/home/infa/oracle/Wallet_WVKWLLCXZQIYHSGI/cwallet.sso
Key Store Password:	********
Key Password:	********
Connection Retry Period	
Metadata Advanced Connection Properties	
Runtime Advanced Connection Properties	

Next Step:

1. Login to IDMC and create a [mapping](#) to read from a data source, transform the data, and write to OADB target.

Additional resources:

1. YouTube video: [Setting Up an Oracle Autonomous Database Connection with a Secure Agent in IICS](#)
2. Documentation: [Oracle Autonomous Database connector](#)
3. Documentation: [Secure Agent Installation](#)

4. Analytics Platform Reference Architecture: https://docs.oracle.com/en/solutions/informatica-on-oci/index.html#GUID-6A097301-4F34-40B4-8816-76F71362EAFD
5. Oracle LiveLabs Transform Data with Informatica Data Integration