Oracle® Airlines Data Model

Installation Guide

Release 12.2

E79017-04

December 2016

ORACLE

Oracle Airlines Data Model Installation Guide, Release 12.2

E79017-04

Copyright © 2014, 2016, Oracle and/or its affiliates. All rights reserved.

Primary Author: Thomas Van Raalte

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.

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 and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon 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, Opteron, the AMD logo, and the AMD Opteron 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

If this is software 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 installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

List of Examples

List of Tables

Preface

Oracle Airlines Data Model Installation Guide describes how to install and configure Oracle Airlines Data Model.

Audience

This guide is intended for anyone responsible for installing Oracle Airlines Data Model on a supported operating system platform.

Installation of Oracle Airlines Data Model requires basic knowledge of Oracle Database, Oracle OLAP, Oracle Data Mining, and Oracle Business Intelligence Suite Extended Edition.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

For more information about Oracle Airlines Data Model, see the following documents:

- *Oracle Airlines Data Model Implementation and Operations Guide*
- *Oracle Airlines Data Model Reference*
- *Oracle Airlines Data Model Release Notes*

Conventions

The following text conventions are used in this guide:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text.
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

Introduction to Oracle Airlines Data Model Installation

Describes how to install Oracle Airlines Data Model and the sample reports for Oracle Airlines Data Model.

Use the installer to create an Oracle Airlines Data Model data warehouse:

1.1 Types of Installations Provided for Oracle Airlines Data Model

Specifies details for the Airlines Data Model installation type and the Sample Reports installation type.

Using the Oracle Universal Installer you can perform two types of Oracle Airlines Data Model installation:

- Installation of the Oracle Airlines Data Model component, itself. You *must* install this component to create an Oracle Airlines Data Model data warehouse.
- Installation of sample reports (and schemas) that you can use for ideas about how to design your own reports. Installing these samples is optional.

Note:

The reports and dashboards that are used in examples and delivered with Oracle Airlines Data Model are provided only for demonstration purposes. They are not supported by Oracle.

Different items are installed depending on whether you install the database objects, or the sample reports and schemas.

Airlines Data Model Installation

When you perform an **Airlines Data Model** installation, the Oracle Universal Installer installs the Oracle Airlines Data Model component without data. Specifically, the installer creates the following schema in the target database:

- `oadm_sys` which is the main schema for Oracle Airlines Data Model. This schema contains all the relational, mining, and OLAP components of Oracle Airlines Data Model, including the Oracle Airlines Data Model data mining results tables.

There is no data in this schema. You need to populate data into the schema.

Sample Reports Installation

When you perform a **Sample Reports** installation of the Oracle Airlines Data Model, the installer creates the Oracle Airlines Data Model sample schema in the target database, and copies and configures all the sample reports to your Oracle Business Intelligence Suite Extended Edition server. Specifically, the installer installs:

- The following file that provides the data for the sample reports:
  - `oadm_sample.dmp.zip` which is a dump file of the schemas that contain the sample data for the relational and data mining components of Oracle Airlines Data Model.

    Tip:

    The default user name for the schema is `oadm_sample`.

- The following files that define and create the sample reports:
  - `oadm.rpd`
  - `oadmwebcat.zip`

Related Topics:

Oracle Airlines Data Model Reference

1.2 Oracle Airlines Data Model Home Directory Structure

The installation image contains directories that are installed under the path *`ORACLE_HOME`*`/oadm`.

The installation includes the following directories:

- `report`: which contains the sample report files for Oracle Airlines Data Model installation.
- `pdm`: which contains the physical schema dump, creation scripts, and lookup value population scripts, as listed in the following table:

Subdirectory	Description
`metadata`	Metadata creation and population scripts
`mining`	Data mining scripts and related files
`olap`	OLAP scripts and related files
`relational`	Relational schema installation scripts and relational related files
`relational/ddl`	Relational schema installation scripts and related scripts

Subdirectory	Description
`relational/ddl/calendar`	Calendar and time data population scripts
`relational/ddl/intra_etl`	Intra-ETL scripts
`relational/ddl/lookup_value`	Lookup data population scripts
`relational/sample_schema`	Physical sample schema

1.3 Installation Checklist

Provides a checklist of the steps involved to install Oracle Airlines Data Model.

Installation Checklist for Oracle Airlines Data Model

- Release notes: **Read** *Oracle Airlines Data Model Release Notes* to identify any changes for the installation.
- Hardware and Software: **Verify Hardware and Software Requirements**

  Verify that your system is one of the supported platforms and that it satisfies the hardware and software requirements as described in " Hardware and Software Requirements (page 2-1)".
- Preinstallation Steps: **Perform Preinstallation Tasks** Identify and perform any necessary pre-installation tasks, as described in "Pre-installation Tasks (page 3-1)".
- Installation and Postinstallation Steps **Run Installer** and perform Postinstallation Tasks
  - Select the Oracle Airlines Data Model components to install, as described in "Installer Execution (page 3-7)".
  - Identify and perform any necessary postinstallation tasks, as described in "Post-Installation Tasks (page 3-13)".
- Add Additional Components:

  Perform Installation Steps for Additional Components

  Install the additional components that you need as described in " Installation of Additional Components (page 4-1)".

> **Note:**
>
> You *must* deinstall Oracle Airlines Data Model before you re-install it over an existing version of Oracle Airlines Data Model.
>
> To deinstall Oracle Oracle Airlines Data Model, you do *not* run the Oracle Universal Installer in deinstall mode. To deinstall Oracle Airlines Data Model, follow the directions in Backup, Recovery, and Deinstallation of Oracle Airlines Data Model (page 5-1)

Related Topics:

Oracle Airlines Data Model Release Notes

2

Hardware and Software Requirements

Describes the hardware and software requirements of Oracle Airlines Data Model.

Before you install Oracle Airlines Data Model, you must verify that the system meets all hardware and software requirements.

2.1 Supported Platforms

Specifies the Oracle Airlines Data Model Release supported platforms.

Supported Platforms

Oracle Airlines Data Model release is supported on the following platforms. For each platform, the given operating system version or later versions are required:

- HP-UX Itanium 11.31
- Linux *x*86-64
  - Oracle Linux 5
  - Oracle Linux 6
  - Oracle Linux 7
  - Red Hat Enterprise Linux 5
  - Red Hat Enterprise Linux 6
  - Red Hat Enterprise Linux 7
  - Linux x86-64 SLES 11
  - Linux x86-64 SLES 12 only supported on Oracle Database 12*c* Release 1 Enterprise Edition (12.1.0.2)
- Oracle Solaris on SPARC (64-bit)
  - Oracle Solaris on x86-64 (64-bit) 10

  - Oracle Solaris on x86-64 (64-bit) 11
- Oracle Solaris on x86-64 (64-bit)
  - Oracle Solaris on x86-64 (64-bit) 10
  - Oracle Solaris on x86-64 (64-bit) 11
- IBM AIX on POWER Systems (64-bit)
  - AIX 6.1 64-bit kernel
  - AIX 7.1 64-bit kernel
- IBM: Linux on System z
  - Linux on System z SLES 11
  - Linux on System z Red Hat Enterprise Linux 6
  - Linux on System z Red Hat Enterprise Linux 5

2.2 Hardware Requirements

Specifies the Oracle Airlines Data Model hardware requirements.

The Oracle Database installation guide for your platform includes procedures for checking that your installation meets the hardware and operating system requirements for Oracle Database.

Additionally, for a complete installation of Oracle Airlines Data Model, the minimum hardware requirement is disk space of at least 10 GB (including at least 2 GB for the software files in the Oracle home directory and at least 8 GB disk space for the data files).

2.3 Software Requirements

Specifies minimum software requirements for Oracle Airlines Data Model.

The minimum software requirements for Oracle Airlines Data Model are as follows:

Oracle Database Requirements (page 2-2)
Specifies Oracle Database requirements for Oracle Airlines Data Model installation.

Oracle Business Intelligence Suite Extended Edition (page 2-3)
Specifies Oracle Business Intelligence Suite Extended Edition version. This is Optional for Oracle Airlines Data Model and Sample Reports installation steps but is required to deploy the Oracle Airlines Data Model sample reports RPD and webcat and to view the sample reports on the Oracle Business Intelligence Suite Extended Edition instance.

2.3.1 Oracle Database Requirements

Specifies Oracle Database requirements for Oracle Airlines Data Model installation.

Oracle Airlines Data Model installation requires one of the following Oracle Database releases:

- Oracle Database 12*c* Release 1 Enterprise Edition (12.1.0.2)

- Oracle Database 12*c* Release 1 Enterprise Edition (12.1.0.1)
- Oracle Database 11*g* Release 2 Enterprise Edition (11.2.0.4)

Tip:

When you install the Database ensure that the database character set is Unicode (AL32UTF8) to support multi-language installations since Oracle Airlines Data Model permits the installation of support for English and one other language.

Installation of the Oracle Airlines Data Model component requires the following options to the Database:

- Oracle Partitioning
- Oracle Online Analytical Processing (OLAP)
- Oracle Advanced Analytics

After you download and install the Database, upgrade to the latest patch. Patches are available from My Oracle Support (`http://support.oracle.com`).

Related Topics:

Confirming that Oracle Advanced Analytics and OLAP Options are Installed (page 3-2)

Provides the commands to check that Oracle Advanced Analytics and OLAP options are installed.

2.3.2 Oracle Business Intelligence Suite Extended Edition

Specifies Oracle Business Intelligence Suite Extended Edition version. This is Optional for Oracle Airlines Data Model and Sample Reports installation steps but is required to deploy the Oracle Airlines Data Model sample reports RPD and webcat and to view the sample reports on the Oracle Business Intelligence Suite Extended Edition instance.

You must have the Oracle Business Intelligence Suite Extended Edition installed before you use the Oracle Airlines Data Model sample reports (Oracle Business Intelligence Suite Extended Edition is required to deploy the Oracle Airlines Data Model sample reports RPD and webcat and to view the sample reports).

Oracle Business Intelligence Suite Extended Edition can be downloaded from the "Oracle Business Intelligence downloads" link on Oracle Technology Network at:

`http://www.oracle.com/technetwork/middleware/bi-enterprise-edition/downloads/index.html`

Installation instructions are included in the documentation.

3

Installation of Oracle Airlines Data Model

Describes the pre-installation and post-installation tasks and running the installer for Oracle Airlines Data Model.

To install Oracle Airlines Data Model, you perform the tasks as described:

3.1 Pre-installation Tasks

Specifies the pre-installation tasks. Before you install the Oracle Airlines Data Model, perform these tasks.

Checking the cfgtoollogs Directory (page 3-7)
Describes steps to validate that the `cfgtoollogs` directory exists.

3.1.1 Ensuring that Required Software is Installed

Provides the overview to ensure that for each type of installation, the required software is installed.

Ensuring that Required Software is Installed

Perform the following steps to ensure that for each type of installation, the required software is installed:

See Also:

As discussed inSoftware Requirements (page 2-2) you must have certain software installed before you can successfully install the Oracle Airlines Data Model component or the Oracle Airlines Data Model sample data and reports.

Confirming that Oracle Advanced Analytics and OLAP Options are Installed (page 3-2)
Provides the commands to check that Oracle Advanced Analytics and OLAP options are installed.

Confirming that Oracle Business Intelligence Suite Extended Edition is Installed (page 3-2)
Test that Oracle Business Intelligence Suite Extended Edition is installed.

3.1.1.1 Confirming that Oracle Advanced Analytics and OLAP Options are Installed

Provides the commands to check that Oracle Advanced Analytics and OLAP options are installed.

Confirming that Oracle Advanced Analytics and OLAP Options are Installed

To check that the Oracle Advanced Analytics and OLAP options are installed, log in as SYS and enter the following SQL queries:

```
SELECT VALUE FROM V$OPTION WHERE PARAMETER ='Data Mining';
SELECT VALUE FROM V$OPTION WHERE PARAMETER ='OLAP';
```

If these queries return `TRUE`, the options are installed.

3.1.1.2 Confirming that Oracle Business Intelligence Suite Extended Edition is Installed

Test that Oracle Business Intelligence Suite Extended Edition is installed.

Confirming that Oracle Business Intelligence Suite Extended Edition is Installed

To test that Oracle Business Intelligence Suite Extended Edition is installed, open the following link in a browser. (Note that the 9704 value in the link is the value of the default Oracle Business Intelligence Suite Extended Edition port; if you specified a different port when you installed Oracle Business Intelligence Suite Extended Edition, use the value for that port.)

```
http://hostname:9704/analytics
```

The sample Oracle Business Intelligence Suite Extended Edition login window is displayed.

Use `Administrator` for both the user name (ID) and the password. (There is no password for the id Administrator.)

See Also:

If Oracle Business Intelligence Suite Extended Edition is not installed, see "Oracle Business Intelligence Suite Extended Edition (page 2-3)"

3.1.2 Changing the Default Value for the Maximum Processes Initialization Parameter

Oracle Airlines Data Model requires that the initial value for the `PROCESSES` initialization parameter be set to a value greater than the default database installation value.

How to determine the current value for the PROCESSES parameter

To determine the current value for the maximum processes parameter, log in as DB with DBA account, and then execute the following SQL statement:

```
show parameter processes;
```

How to change the value for the maximum processes

To change the value for the maximum processes, issue the following statements. Depending on your database options, the value specified for processes should be set to a minimum value greater than or equal to 250:

```
alter system set processes=250 scope=spfile;
shutdown immediate
startup
```

3.1.3 Changing the Maximum Data Files Option

Oracle Airlines Data Model supports the partition of transaction-related fact tables according to your data volume estimation. To support the partition of transaction-related fact tables, you might need a different value for the maximum number of data files that is presently specified for the Database.

You can specify the start year and end year for your data. Based on your input the transaction related fact tables are partitioned by the date as one partition for each month.

How to determine the value for maximum number of data files

Use the following formula to determine the value that you need for the maximum number of data files:

```
Maximum Datafiles = Default Value + 300 + ((End year) - (Start year) + 1) * 12
```

How to determine the current value for the maximum number of data files

To determine the current value for the maximum number of data files, log in as DB with DBA account, and then execute the following SQL statement:

```
show parameter db_files
```

In the results for this statement, the `value` column shows the current maximum number of data files.

How to change the value for the maximum number of data files

To change the value for the maximum number of data files, issue the following statements where *new_number* is the new value that you want to specify:

```
alter system set db_files = new_number scope = spfile;
shutdown immediate
startup
```

3.1.4 Disabling the Oracle Database Vault Option

For an Oracle Database with the Oracle Database Vault enabled, disable the Oracle Database Vault before you install Oracle Airlines Data Model.

Disabling the Oracle Database Vault Option

The Oracle Airlines Data Model installer requires additional steps on a Vault-enabled database. For an Oracle Database with the Oracle Database Vault enabled, perform the following steps to disable Oracle Database Vault before you install Oracle Airlines Data Model.

To find out if Oracle Database Vault is enabled, do the following:

```
SELECT * FROM V$OPTION WHERE PARAMETER = 'Oracle Database Vault';
```

If this command returns true, then the Vault option is enabled.

To disable the Vault option, do the following:

1. On UNIX systems, ensure that the environment variables, `ORACLE_HOME`, `ORACLE_SID`, and `PATH` are correctly set.
2. Log in to SQL*Plus as user SYS with the SYSOPER privilege.
3. Shut down the Database.
4. From the command line, stop the Database Control console process and the listener. For example:

   ```
   sqlplus sys as sysoper
   Enter password: password
   SQL> SHUTDOWN IMMEDIATE
   SQL> EXIT
   $ emctl stop dbconsole
   $ lsnrctl stop listener_name
   ```

   For Oracle RAC installations, shut down each database instance as follows:

   ```
   $ srvctl stop database -d db_name
   ```

   Note:

   In Oracle Database 12*c*, Oracle Enterprise Manager Database Express is built into the Oracle database. It requires no special installation or management.

5. Disable Oracle Database Vault with the following commands (this is a UNIX system example):

```
cd $ORACLE_HOME/rdbms/lib
make -f ins_rdbms.mk dv_off
cd $ORACLE_HOME/bin
relink all
```

For Oracle RAC installations, run these commands on all nodes.

6. Startup the Database, Database Control console process, and listener. For example, on UNIX, Log in to SQL*Plus as user SYS with the SYSOPER privilege and restart the database instance. Then from the command line, restart the Database Control console process and listener. For example:

```
sqlplus sys as sysoper
Enter password: password
SQL> STARTUP
SQL> EXIT
$ emctl start dbconsole
$ lsnrctl start listener_name
```

For Oracle RAC installations, restart each instance as follows:

```
$ srvctl start database -d db_name
```

Related Topics:

Re-Enabling Oracle Database Vault (page 3-17)
Describes the process of re-enabling Oracle Database Vault if before installing you disabled Oracle Database Vault, and then you want to re-enable Oracle Database Vault.

3.1.5 Ensuring a Value is Set for the Service Name

Ensure that the `tnsnames.ora` file includes a value for `SERVICE_NAME`.

In a Non Oracle RAC Environment

- **In a Non Multitenant Environment**

  Ensure that in `tnsnames.ora` the service name is provided. To check and modify `tnsnames.ora`, perform the following steps:

  1. Go to the directory: `$ORACLE_HOME/network/admin`
  2. Edit `tnsnames.ora` to make sure the `SERVICE_NAME` value is provided. For example:

```
orcl= (DESCRIPTION =
 (ADDRESS = (PROTOCOL = TCP)(HOST = example.oracle.com)(PORT = 1521))
(CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME = orcl) ) )
```

- **In a Multitenant Environment**

  In a multitenant environment, every container, root, or pluggable has its own service name and you need to use the PDB container for application users. While installing the data model you need to provide the service name of the pluggable database (PDB).

  You must manually add the PDB entry in the `tnsnames.ora` before proceeding with the install:

1. Go to the directory: `$ORACLE_HOME/network/admin`
2. Edit `tnsnames.ora` to ensure the `SERVICE_NAME` value is provided. For example:

```
 PDBORCL12 =   (DESCRIPTION =
 (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1522))
(CONNECT_DATA =       (SERVER = DEDICATED)
    (SERVICE_NAME = pdborcl12. example.com)      )    )
```

To create the entry using the description in `tnsnames.ora` for the connection to the CDB, copy the CDB entry and then modify the copied CDB entry as the PDB entry.

In an Oracle RAC Environment

The important difference compared with other Oracle RAC service name configuration settings is to use a specific host name, not a Single Client Access Name (SCAN).

Note:

Although a specific host is used, Oracle Airlines Data Model is installed on all the nodes.

- **In a Non Multitenant Environment**

  Ensure that in `tnsnames.ora`, the service name is provided. To check and modify `tnsnames.ora`, perform the following steps:

  1. Go to the directory:`$ORACLE_HOME/network/admin`.
  2. Edit `tnsnames.ora` to add an entry to the specific host to use with the actual host name, not the scanname. For example, two Oracle RAC nodes (example00eax, example00eay), the scanname is example00eaxy-scn. and OUI starts on node example00eax. The original tns information, for example is:

```
CSOADM=
  (DESCRIPTION=
 (ADDRESS =  (PROTOCOL =TCP)(HOST=example00eaxy-scn)(PORT=1521))
(CONNECT_DATA =
 (SERVER =DEDICATED)
  (SERVICE_NAME =csoadm.us.oracle.com)
 )
)
```

  Then add an entry specific to host example00eax.

```
example00eax=
 (DESCRIPTION=
 (ADDRESS =  (PROTOCOL =TCP)(HOST=example00eax)(PORT=1521))
  (CONNECT_DATA =
(SERVER =DEDICATED)
(SERVICE_NAME =csoadm.us.oracle.com)
 )
)
```

  Use example00eax as the service name to install Oracle Airlines Data Model. No change is required to the node example00eay.

- **In a Multitenant Environment**

  In a multitenant environment, every container, root, or pluggable, has its own service name and you need to use the PDB container for application users. While installing the data model you need to provide the service name of the pluggable database (PDB).

  You must manually add the PDB entry in the `tnsnames.ora` before proceeding with the install:

  1. Go to the directory: `$ORACLE_HOME/network/admin`
  2. Edit `tnsnames.ora` to ensure the `SERVICE_NAME` value is provided. For example:

```
example00eax =   (DESCRIPTION =
(ADDRESS = (PROTOCOL = TCP)(HOST =example00eax)(PORT = 1521))
  (CONNECT_DATA =       (SERVER = DEDICATED)
(SERVICE_NAME = pdborcl12. example.com)      )    )
```

  To create the entry using the description in `tnsnames.ora` for the connection to the CDB, copy the CDB entry and then modify the copied CDB entry as the PDB entry.Note, use actual host name(HOST =example00eax) not the scanname, for example: example00eaxy-scn.

  Only the tns of the host where OUI starts needs to update the `tnsnames.ora`, the other `tnsnames.ora` files at other nodes do not require changes.

3.1.6 Checking the cfgtoollogs Directory

Describes steps to validate that the `cfgtoollogs` directory exists.

Checking the cfgtoollogs Directory

Check to validate that the directory `cfgtoollogs` exists in the directory $ORACLE_BASE. If the directory `cfgtoollogs` does not exist then create the directory in $ORACLE_BASE.

3.2 Installer Execution

Specifies the steps for installing Oracle Airlines Data Model.

Installer Execution

Before you install Oracle Airlines Data Model, perform the necessary pre-installation tasks.

Note:

You must install Oracle Airlines Data Model on the "localhost" where the database server is located. You can determine the value of your "localhost" by issuing the following command where *db-name* is the name of your Oracle Database:

```
tnsname db-name
```

Follow these steps to install Oracle Airlines Data Model:

1. Log in using the user id that you plan to use to run the installation. You should use the same user id to install Oracle Airlines Data Model as used to install the Oracle Database and Oracle Business Intelligence Suite Extended Edition.

2. Set the ORACLE_HOME environment variable to the location of the Database on which to install Oracle Airlines Data Model.

   For example, suppose that Oracle home is in the directory `/loc/app/oracle/product/12.1/`

   In a Bourne, Bash, or Korn shell, use these commands to set `ORACLE_HOME`:

   ```
   $ ORACLE_HOME=/loc/app/oracle/product/12.1/
   $ export ORACLE_HOME
   ```

   In a C shell, use this command to set `ORACLE_HOME`:

   ```
   % setenv ORACLE_HOME /loc/app/oracle/product/12.1/
   ```

3. Start the installer from the directory that contains the Oracle Airlines Data Model installation files:

   ```
   cd directory-containing-OADM_installation-files
   ./runInstaller
   ```

4. The **Welcome** page is displayed. Click **Next**.

5. In the **Select Installation Type** page, select the type of Oracle Airlines Data Model installation that you want to perform:

   - If you want to install the Oracle Airlines Data Model component, select **Airlines Data Model**.
   - If you want to install the Oracle Airlines Data Model sample reports and sample data, select **Sample Reports**.

   Oracle Airlines Data Model supports English and 9 other languages. To add support for one language in addition to English, click **Product Languages** and select the language.

   Click **Next**.

6. In the **Specify Home Details** page, verify that the **Name** and **Path** correspond to the Database in which you want to install Oracle Airlines Data Model. You can click **Browse** to navigate to any valid local data file path.

   Click **Next**.

7. In the **Product-Specific Prerequisite Checks** page, if one or more items are flagged, manually verify that your environment meets the minimum requirements. For details about performing this manual verification, click the flagged item and review the details in the box at the bottom of the page.

   When the status of all items are checked as **Succeeded**, click **Next**.

8. In the **Specify Database Connection Information** page, provide the following information:

   - Select the **Net Service Name** which is the alias used for a connect descriptor to connect to the Oracle Database where Oracle Airlines Data Model is installed.

Note:

In a multitenant environment, select PDB as the Net Service Name, not CDB. For example, use `pdborcl` for the Net Service Name.

Tip:

A net service name is a simple name for a service that resolves to a connect descriptor. Net service names are populated from the *`OracleHome`*`/network/admin/tnsnames.ora` file.

- Enter the **Password for SYSTEM user** of the Oracle Database where Oracle Airlines Data Model will be installed.

Click **Next**.

9. The **Specify Schema Information** page shows when you select to install the component, **Airlines Data Model**. In this dialog specify where all of the data files that correspond to the Oracle Airlines Data Model tablespace should reside:

   - If you do *not* want to use the Automatic Storage Management (ASM) feature in Oracle Database, but instead want to explicitly specify a folder name, then select **File System** and enter a folder name (ensure that the location you select is one where the database can create data files). Click **Browse** to navigate to any valid local data file path.

     Click **Next**.

   - If you store your Oracle Database files using the Automatic Storage Management (ASM) feature, and also intend to store Oracle Airlines Data Model data files using ASM, then select **Automatic Storage Management (ASM)**.

     Click **Next**.

     In the **Select ASM Disk Group** page, select the disk group in which you want to install the Oracle Airlines Data Model data files.

     Click **Next**.

10. The **Specify Sample Schema Information** page shows when you select to install the **Sample Reports**.

    - If you do *not* want to use the Automatic Storage Management (ASM) feature in Oracle Database, but instead want to explicitly specify a folder name, select **File System** and enter a folder name. Click **Browse** to navigate to any valid local data file path.

      Click **Next**.

    - If you store your Oracle Database files using the Automatic Storage Management (ASM) feature, and you also intend to store Oracle Airlines Data Model data files using ASM, select **Automatic Storage Management (ASM)**.

      Click **Next**.

      In the **Select ASM Disk Group** page, select the disk group in which you want to install the Oracle Airlines Data Model data files.

Click **Next**. When you install the sample reports, the next page shows the installer Summary that summarizes the information that you specified, as shown in step 12 (page 3-10).

11. In the **Specify Calendar Date Range** page, specify the calendar date range by providing values for **Start Date** and **Number of Years**. The installer uses this information to populate the calendar data. A recommended **Number of Years** value is 15. Specifying larger **Number of Years** values proportionally increases the time it takes to implement the partitioning portion of Oracle Airlines Data Model install activity. The start year specified with **Start Date** should be the lowest possible dates from your historical data load. There is no easy method to incrementally extend the time dimension, so your initial choice for **Number of Years** should be specified to meet your needs for a reasonably long time.

    Start Date must be in the format `YYYY-MM-DD`; for example, 2011-01-20 stands for January 20, 2011. **Number of Years** must be a whole number.

    Note:

    These calendar dates have nothing to do with the number of years you will effectively keep the data. The calendar as such is totally independent of the Information Lifecycle Management process you may use.

    Click **Next**.

12. The installer summarizes the information that you specified on the **Summary** page. Check that this information is correct. If necessary, click **Back** to return to previous screens and make corrections. When you are satisfied with the information, click **Install**.

13. The Oracle Airlines Data Model component or sample reports are installed. If there are any problems, messages are displayed. After the installation finishes, the end of installation screen appears. Click **Exit** to end the installer.

After you exit the installer, perform any necessary post-installation tasks. Then install the other components that you need to create an Oracle Airlines Data Model warehouse.

Related Topics:

Post-Installation Tasks (page 3-13)
: Specifies steps to perform after the installation.

Types of Installations Provided for Oracle Airlines Data Model (page 1-1)
: Specifies details for the Airlines Data Model installation type and the Sample Reports installation type.

Post-Installation Tasks (page 3-13)
: Specifies steps to perform after the installation.

Installation of Additional Components (page 4-1)
: Describes how to install Oracle components that you did not need to install before you installed the Oracle Airlines Data Model component or sample reports, but that you will use when you are creating an Oracle Airlines Data Model data warehouse:

3.3 Silent Installation

Specifies instructions for using the `-silent` option with the installer.

A silent installation has no graphical output and no input by the user. It is accomplished by supplying Oracle Universal Installer with a response file and specifying the `-silent` flag on the command line. Use silent installation when you want the same installation parameter on more than one computer.

3.3.1 Selecting a Response File

Before performing a silent installation, you must provide information specific to your installation in a response file.

Selecting a Response File

The installer fails if you attempt an installation using a response file that is not configured correctly. Response files are text files that you can create or edit in a text editor. The response file (`adm.rsp`) is located in the `/response` directory in the directory that contains the Oracle Airlines Data Model installation files. Edit the response file according to your requirements for silent installation. To use a response file, first copy it to your system.

Note:

You must install Oracle Airlines Data Model on the "localhost" where the database server is located. You can determine the value of your "localhost" by issuing the following command where *db-name* is the name of your Oracle Database:

```
tnsname db-name
```

3.3.2 Editing the Response File

Use any text editor to edit the silent install response file to include information specific to your system.

Editing the Response File

You must specify values for variables in your response file. Each variable listed in the response file is associated with a comment, which identifies the variable type. For example:

```
string = "Sample Value"
Boolean = True or False
Number = 1000
StringList = {"StringValue 1", "String Value 2"}
```

For a silent installation, specify values for the strings with <*Value* Required>. Remove the comment from the variable values in the response file before starting the Oracle Airlines Data Model installation.

3.3.3 Specifying a Response File and Starting the Installation

To make Oracle Universal Installer use the response file at installation time, specify the location of the response file as a parameter when starting Oracle Universal Installer.

Specifying a Response File and Starting the Installation

Before you specify a response file, ensure that all values in the response file are correct. To perform a silent installation, use the `-silent` parameter as follows:

```
./runInstaller -silent -responseFile absolute_path_and_filename
```

Caution:

During installation, response files may be copied to subdirectories in the Oracle home. If you have provided passwords or other sensitive information in your response files, then for security purposes you should delete them after completing and verifying the installation.

3.3.4 Silent Installation Log Files

The success or failure of silent installations is logged in the `installActions.log` file.

Silent Installation Log Files

The silent installation creates the `silentInstall.log` file. The log files are created in the `/oraInventory/logs` directory. The `silentInstall`*`Date_Time`*`.log` file contains the following line if the installation was successful:

```
The installation of Oracle Airlines Data Model was successful.
```

The corresponding `installActions`*`Date_Time`*`.log` file contains specific information regarding installation.

3.3.5 Security Tips for Silent Installations

The response file contains the installation password in clear text. To minimize security issues, follow these guidelines for the silent installation.

- Set the permissions on the response files so that they are readable only by the operating system user performing the silent installation.
- If possible, remove the response files from the system after the silent installation is completed.

3.3.6 Error Handling

Describes silent installation error handling.

- Variables that are outside any section are ignored.
- Values for variables that are of the wrong context, format, or type are treated as null.
- If you attempt a silent installation with an incorrect or incomplete response file, or if Oracle Universal Installer encounters an error, such as insufficient disk space, then the installation fails.

3.4 Post-Installation Tasks

Specifies steps to perform after the installation.

After you run Oracle Universal Installer perform the following post-installation steps:

- After you install Oracle Airlines Data Model, obtain the IP Patch. The IP Patch includes additional documentation. To obtain the IP Patch and for the latest information about Oracle Airlines Data Model patch sets, go to My Oracle Support at `https://support.oracle.com`.
- Review the Security chapter in the *Oracle Airlines Data Model Implementation and Operations Guide*.

Unlocking the OADM_SYS Account (page 3-14)
Describes how to unlock the OADM_SYS account and set a password on this account.

Unlocking the OADM_SAMPLE Account (page 3-15)
Describes how to unlock the OADM_SAMPLE account.

Recompiling OLAP Views (page 3-15)
Describes how to recompile the OLAP Views.

Limiting User Privileges When You have Installed the Sample Reports (page 3-15)
By default, when you perform a Sample Reports type of Oracle Airlines Data Model installation, the sample reports connect to `oadm_sys` schema directly. For security reasons, you may want to grant only select privileges to users who work with these reports.

Configuring the Working OLAP Environment (page 3-16)
: To set up a working OLAP environment for an Oracle Airlines Data Model warehouse, configure the database with the specified parameter and configuration settings.

Re-Enabling Oracle Database Vault (page 3-17)
: Describes the process of re-enabling Oracle Database Vault if before installing you disabled Oracle Database Vault, and then you want to re-enable Oracle Database Vault.

Ensuring That Oracle Airlines Data Model Objects Are Valid (page 3-18)
: Describes recompiling all objects in `oadm_sys` schema.

Ensuring That PGA_AGGREGATE_TARGET is Set to the Proper Value (page 3-18)
: To improve performance ensure that the `PGA_AGGREGATE_TARGET` is set to the proper value.

Installing Oracle Business Intelligence Suite Extended Edition Catalog for Oracle Airlines Data Model (page 3-18)
: After Oracle Business Intelligence Suite Extended Edition is installed, follow these steps to install an Oracle Business Intelligence Suite Extended Edition catalog for Oracle Airlines Data Model. If you install the Oracle Airlines Data Model sample reports, then configure the database connection information for the Catalog.

Installing RPD and WebCat for Oracle Business Intelligence Suite Extended Edition (page 3-19)
: If you install the Oracle Airlines Data Model sample reports then deploy the Oracle Airlines Data Model RPD and webcat on the Oracle Business Intelligence Suite Extended Edition instance.

Related Topics:

Oracle Airlines Data Model Implementation and Operations Guide

3.4.1 Unlocking the OADM_SYS Account

Describes how to unlock the OADM_SYS account and set a password on this account.

Unlocking the OADM_SYS Account

At the end of the installation, the OADM_SYS account is locked. To unlock this account:

1. Connect to the database with a DBA ID.

Note:

The password is case sensitive.

---

2. Unlock the account and set the password by issuing the following SQL statement:

```
alter user oadm_sys account unlock identified by <password>;
```

WARNING:

Enter a password for the OADM_SYS account that is secure, according to the password guidelines described in *Oracle Database 2 Day DBA*. Do not to use OADM_SYS as a password.

Related Topics:

Oracle Database 2 Day DBA

3.4.2 Unlocking the OADM_SAMPLE Account

Describes how to unlock the OADM_SAMPLE account.

Unlocking the OADM_SAMPLE Account

At the end of the installation of the Oracle Airlines Data Model sample reports, the OADM_SAMPLE account is locked. To unlock this account:

1. Connect to the Database with a DBA ID.

Note:

The password is case sensitive.

2. Unlock the account and set the password by issuing the following SQL statement:

```
alter user oadm_sample account unlock identified by <password>;
```

WARNING:

Enter a password for the OADM_SAMPLE account that is secure, according to the password guidelines described in *Oracle Database 2 Day DBA*. Do not to use OADM_SAMPLE as a password.

Related Topics:

Oracle Database 2 Day DBA

3.4.3 Recompiling OLAP Views

Describes how to recompile the OLAP Views.

Recompiling OLAP Views

After you unlock the OADM_SAMPLE account, login with this account and execute the following statements to recompile the OLAP views in the sample schema:

```
ALTER VIEW CUST_RVN_VIEW_OLAPC COMPILE;
ALTER VIEW CUST_RVN_VIEW_FIN COMPILE;
```

3.4.4 Limiting User Privileges When You have Installed the Sample Reports

By default, when you perform a Sample Reports type of Oracle Airlines Data Model installation, the sample reports connect to `oadm_sys` schema directly. For security

reasons, you may want to grant only select privileges to users who work with these reports.

Limiting User Privileges

To grant only select privileges, perform the following steps:

1. Create a dedicated reporting user (for example, OADM_Report).
2. Grant select privilege for all Oracle Airlines Data Model tables required for reporting to the user you created in Step 1. Thus, grant the select privilege for all Oracle Airlines Data Model tables which start with one of the following prefixes: DWA, DWB, DWD, DWR, DWL.
3. Create a view (or synonym) in OADM_Report schema, pointing to the OADM_SYS tables.
4. In the Oracle Business Intelligence Suite Extended Edition repository, change the connection information to point to the new schema.

3.4.5 Configuring the Working OLAP Environment

To set up a working OLAP environment for an Oracle Airlines Data Model warehouse, configure the database with the specified parameter and configuration settings.

Configuring the Working OLAP Environment

- Set `sga_target` to 35% of available memory.
- Set `pga_aggregate_target` to `35%` of available memory
- Set `olap_page_pool_size=0`. (This specifies dynamic page pool.)
- Set `_olap_page_pool_hi=30` (that is, lower than default of `50`).
- Set `_olap_parallel_update_threshold` and `_olap_parallel_update_small_threshold` to a high value (for example, `~2Gb.. 2147483647`). These settings turn off parallel update for the analytic workspace.
- Set `memory_max_target` to value greater than SGA and PGA settings. This is maximum amount of memory used for both SGA and PGA. The SGA and PGA settings specified are the minimum settings. (Note that failure to set `memory_max_target` leads to failure of instance startup (the next time these settings are validated which occurs if spfile had an older and distinct setting for `memory_max_target`).

The following statements illustrate changing these settings:

```
alter system set sga_target=1365M scope=spfile;
alter system set pga_aggregate_target=1365M scope=spfile;
alter system set memory_max_target=3030M scope=spfile;
alter system set olap_page_pool_size=0 scope=spfile;
alter system set "_olap_parallel_update_small_threshold"=2147483647 scope=spfile;
alter system set "_olap_page_pool_hi"=30 scope=spfile;
alter system set job_queue_processes=5 scope=spfile;
shutdown immediate;
startup;
```

3.4.6 Re-Enabling Oracle Database Vault

Describes the process of re-enabling Oracle Database Vault if before installing you disabled Oracle Database Vault, and then you want to re-enable Oracle Database Vault.

Re-Enabling Oracle Database Vault

If you are using Oracle Database Vault and disabled this option before installation then re-enable Oracle Database Vault by taking the following steps:

1. Shutdown the Database, Database Control console process, and listener. For example on UNIX, ensure that the environment variables, `ORACLE_HOME`, `ORACLE_SID`, and `PATH` are correctly set. Log in to SQL*Plus as user SYS with the SYSOPER privilege and shut down the database. Then from the command line, stop the Database Control console process and listener. For example:

   ```
   sqlplus sys as sysoper
   Enter password: password
   SQL> SHUTDOWN IMMEDIATE
   SQL> EXIT
   $ emctl stop dbconsole
   $ lsnrctl stop listener_name
   ```

   For Oracle RAC installations, shut down each database instance as follows:

   ```
   $ srvctl stop database -d db_name
   ```

   Note:

   In Oracle Database 12*c*, Oracle Enterprise Manager Database Express is built into the Oracle database. It requires no special installation or management.

2. Enable Oracle Database Vault:

   ```
   cd $ORACLE_HOME/rdbms/lib
   make -f ins_rdbms.mk dv_on
   make -f ins_rdbms.mk ioracle
   ```

3. Startup the Database, Database Control console process, and listener. For example, on UNIX, Log in to SQL*Plus as user SYS with the SYSOPER privilege and restart the instance. Then from the command line, restart the Database Control console process and listener. For example:

   ```
   sqlplus sys as sysoper
   Enter password: password
   SQL> STARTUP
   SQL> EXIT
   $ emctl start dbconsole
   $ lsnrctl start listener_name
   ```

   For Oracle RAC installations, restart each instance as follows:

   ```
   $ srvctl start database -d db_name
   ```

4. For Oracle RAC installations, repeat these steps for each node on which the database is installed.

Related Topics:

Disabling the Oracle Database Vault Option (page 3-4)

3.4.7 Ensuring That Oracle Airlines Data Model Objects Are Valid

Describes recompiling all objects in `oadm_sys` schema.

Recompiling Objects in OADM_SYS

To ensure that all Oracle Airlines Data Model objects are valid, log in to the database with a DBA id and password and recompile all objects in OADM_SYS by issuing the following SQL statements:

```
exec utl_recomp.recomp_serial('OADM_SYS');
```

3.4.8 Ensuring That PGA_AGGREGATE_TARGET is Set to the Proper Value

To improve performance ensure that the `PGA_AGGREGATE_TARGET` is set to the proper value.

The value specified for `PGA_AGGREGATE_TARGET` depends on the physical RAM of your Database Server.

Setting PGA_AGGREGATE_TARGET

Ensure that the `WORKAREA_SIZE_POLICY` parameter is set to `AUTO`.

Note:

Setting `PGA_AGGREGATE_TARGET` to a nonzero value has the effect of automatically setting the `WORKAREA_SIZE_POLICY` parameter to `AUTO`.

See Also:

For information on tuning the `PGA_AGGREGATE_TARGET` initialization parameter, see *Oracle Database Performance Tuning Guide*

3.4.9 Installing Oracle Business Intelligence Suite Extended Edition Catalog for Oracle Airlines Data Model

After Oracle Business Intelligence Suite Extended Edition is installed, follow these steps to install an Oracle Business Intelligence Suite Extended Edition catalog for Oracle Airlines Data Model. If you install the Oracle Airlines Data Model sample reports, then configure the database connection information for the Catalog.

1. Add a definition for `oadm_db` for the Oracle Airlines Data Model repository to use when connecting to the database. Add this definition to the file `$ORACLE_HOME/network/admin/tnsnames.ora`:

```
oadm_db =
(DESCRIPTION =
(ADDRESS = (PROTOCOL = TCP)(HOST = hostname.domain)(PORT = port-number))
(CONNECT_DATA =
(SERVER = DEDICATED)
(SERVICE_NAME = SID) # Change your SID, Hostname, and Listener PortNumber
```

```
)
)
```

Tip:

Be careful to split these commands properly when you add them to the file; for example, do not add them as one long concatenated line of code.

Note:

If you want to use another database name, you must change the `tnsname` in the Oracle Business Intelligence Suite Extended Edition repository. See the Oracle Business Intelligence Suite Extended Edition documentation for directions for defining a database connection in repository.

3.4.10 Installing RPD and WebCat for Oracle Business Intelligence Suite Extended Edition

If you install the Oracle Airlines Data Model sample reports then deploy the Oracle Airlines Data Model RPD and webcat on the Oracle Business Intelligence Suite Extended Edition instance.

Installing RPD and WebCat

After you use the installer to install the sample reports you can find the RPD file and the webcat file in the directory `$ORACLE_HOME/oadm/report`, in the following files:

`oadm.rpd`

`oadmwebcat.zip`

Before you deploy the webcat, unzip `oadmwebcat.zip`.

Perform the following steps to deploy the Oracle Airlines Data Model RPD and webcat:

1. Use your browser to open the Weblogic Enterprise Manager portal:

   `http://SERVERNAME:7001/em`

   Login with the weblogic admin ID and password.

   Go to Business Intelligence --> coreapplication --> Deployment--> Repository

   and then deploy the rpd and webcat.

   Notice that when you deploy the RPD you need to provide the RPD password, you can find Oracle Airlines Data Model RPD by contacting My Oracle Support: My Oracle Support.

2. Use your browser to open the weblogic console portal:

   `http://SERVERNAME:7001/console/login/LoginForm.jsp`

   Login with your Weblogic admin ID and password. Go to your security realm and create a user named "oadm" and set a password for this user.

3. Follow the instructions to "Refresh the User GUIDs" to update the GUIDs.

See Also:

For more information, see *Oracle Fusion Middleware Administrator's Guide*

4

Installation of Additional Components

Describes how to install Oracle components that you did not need to install before you installed the Oracle Airlines Data Model component or sample reports, but that you will use when you are creating an Oracle Airlines Data Model data warehouse:

4.1 Creating an Oracle Business Intelligence Suite Extended Edition Catalog

The sample reports provided with Oracle Airlines Data Model are created using the Oracle Business Intelligence Suite Extended Edition.

To modify these reports or to use them as the basis for creating new reports install Oracle Business Intelligence Suite Extended Edition and create an Oracle Business Intelligence Suite Extended Edition catalog for Oracle Airlines Data Model.

Installing Oracle Business Intelligence Suite Extended Edition

If you install Oracle Airlines Data Model sample reports, then install Oracle Business Intelligence Suite Extended Edition as a pre-installation step. If you install the Oracle Airlines Data Model component rather than the sample reports, then install Oracle Business Intelligence Suite Extended Edition.

You also need to create a catalog.

Tip:

To check that Oracle Business Intelligence Suite Extended Edition is installed, follow the instructions in "Confirming that Oracle Business Intelligence Suite Extended Edition is Installed (page 3-2)".

See Also:

- Oracle Business Intelligence Suite Extended Edition (page 2-3)
- Installing Oracle Business Intelligence Suite Extended Edition Catalog for Oracle Airlines Data Model (page 3-18)

4.2 Installing Analytic Workspace Manager

Although not required before you install Oracle Airlines Data Model, install the Analytic Workspace Manager to view and modify Oracle Airlines Data Model OLAP cubes.

Analytic Workspace Manager is installed as a standalone product. The latest version of Analytic Workspace Manager is available at the Oracle OLAP home page at `http://www.oracle.com/technetwork/database/options/olap/index.html`. Installation instructions are included in the documentation.

5

Backup, Recovery, and Deinstallation of Oracle Airlines Data Model

Describes how to deinstall Oracle Airlines Data Model.

5.1 Backing Up and Recovering Oracle Airlines Data Model

Describes backing up and recovering Oracle Airlines Data Model.

Steps for Backing Up and Recovering Oracle Airlines Data Model

To backup and recover Oracle Airlines Data Model perform the following steps:

1. Backup or recover the relational objects.
2. Backup or recover the analytic workspace that is part of Oracle Airlines Data Model.

5.1.1 Exporting Oracle Airlines Data Model

Perform these steps to backup Oracle Airlines Data Model.

1. Backup the `OADM_SYS` schema by executing the `expdp` utility.

   This utility exports all physical tables containing the data and trained mining models.

2. Backup the analytic workspace that is part of the Oracle Airlines Data Model. The analytic workspace is backed up as an EIF file, named `OADM_BAK.EIF`, which is generated under the *`ORACLE_HOME`*`/oadm/pdm/olap` directory.

   a. Connect to the Database with `oadm_sys`.

   b. Issue the following SQL statements:

```
exec dbms_aw.execute('AW ATTACH OADM');
exec dbms_aw.execute('CDA OADM_OLAP_DIR');
exec dbms_aw.execute('EXPORT ALL TO EIF FILE ','OADM_BAK.EIF','
NOTEMPDATA');
exec dbms_aw.execute('AW DETACH OADM');
```

Related Topics:

Oracle Database Utilities

5.1.2 Importing Oracle Airlines Data Model

Perform these steps to restore Oracle Airlines Data Model from the backup files.

1. Restore the `OADM_SYS` schema by executing the `impdp` utility.

   This utility imports all physical tables containing the data and trained mining models.

2. Connect to the Database with `oadm_sys`, and import the analytic workspace that was saved as an EIF file, named `OADM_BAK.EIF`, under the *`ORACLE_HOME`*`/oadm/pdm/olap` directory.

```
exec dbms_aw.execute('IMPORT ALL TO EIF FILE ', 'OADM_BAK.EIF');
```

Related Topics:

Oracle Database Utilities

5.2 Overview: Deinstalling Oracle Airlines Data Model

Perform several tasks to deinstall Oracle Airlines Data Model.

Deinstalling Oracle Airlines Data Model

To deinstall Oracle Airlines Data Model, you do *not* simply run Oracle Universal Installer in deinstall mode. Instead, you perform the following tasks:

1. Backup Oracle Airlines Data Model.
2. Stop any sessions that use the Oracle Airlines Data Model schemas.
3. Execute the deinstallation script.
4. If you are deinstalling the sample reports, perform the post deinstallation tasks..

Note:

To deinstall Oracle Airlines Data Model, you do *not* simply run the Oracle Universal Installer in deinstall mode.

Related Topics:

Exporting Oracle Airlines Data Model (page 5-1)
Perform these steps to backup Oracle Airlines Data Model.

Post-Deinstallation Tasks (page 5-4)
Provides the steps for post-deinstallation cleanup.

Deinstallation Execution (page 5-3)
Lists the steps for deinstalling Oracle Airlines Data Model.

Pre-Deinstallation Tasks (page 5-3)
Describes the pre-deinstallation tasks to perform before you run the deinstallation script.

5.3 Pre-Deinstallation Tasks

Describes the pre-deinstallation tasks to perform before you run the deinstallation script.

The deinstallation script removes the `oadm_sys` schema.

Identifying if the oadm_sys schema is active

Consequently, before you run the deinstallation script, ensure that there are no active sessions that connect to the `oadm_sys` schema.

To identify if there are active sessions connecting to these schemas perform the following steps:

1. Sign in as DBA.
2. Execute the following SQL statements:

```
select SID,SERIAL# from v$session where USERNAME='OADM_SYS';
```

If this query returns a session ID, then there is an active session.

Example 5-1 Ending an active oadm_sys schema session

To end an active session, execute the following statements in which you replace *`sid`* and *`serial`* are the session ID and serial number returned by the earlier queries:

```
alter system kill session 'sid,serial' ;
```

5.4 Deinstallation Execution

Lists the steps for deinstalling Oracle Airlines Data Model.

To deinstall Oracle Airlines Data Model:

1. Set the ORACLE_HOME to the location of the Database on which to deinstall Oracle Airlines Data Model.

   For example, suppose that Oracle home is in the directory `/loc/app/oracle/product/12.1/`

   In a Bourne, Bash, or Korn shell, use these commands to set ORACLE_HOME:

   ```
   $ ORACLE_HOME=/loc/app/oracle/product/12.1/
   $ export ORACLE_HOME
   ```

   In a C shell, use this command to set ORACLE_HOME:

```
% setenv ORACLE_HOME /loc/app/oracle/product/12.1/
```

2. Execute the Oracle Airlines Data Model deinstallation script:

   `$ORACLE_HOME/oadm/oadm_deinstall.sh`

3. When prompted, enter the SYSTEM password.

   The script de-configures Oracle Airlines Data Model and executes the Oracle Universal Installer in deinstall silent mode.

See Also:

If you are deinstalling the sample reports, after the deinstallation script runs, perform the tasks described in "Post-Deinstallation Tasks (page 5-4)"

5.5 Post-Deinstallation Tasks

Provides the steps for post-deinstallation cleanup.

If you are deinstalling the Oracle Airlines Data Model sample reports, then follow these steps to perform additional cleanup:

1. Delete `oadm.rpd` in the directory *`BIHome`*`/Server/Repository`.
2. Delete the `oadmwebcat` folder in *`BIDataHome`*`/web/catalog`.
3. Delete the following line from *`BIHome`*`/Server/Config/NQSConfig.INI`:

   ```
   Star    =    oadm.rpd, DEFAULT
   ```

6

Installing Oracle Airlines Data Model on Oracle Cloud

Describes how to install Oracle Airlines Data Model on Oracle Cloud.

6.1 Installing Oracle Airlines Data Model on Oracle Cloud

To install Oracle Airlines Data Model on Oracle Cloud, use the Oracle Database Cloud Service and the Oracle BI Cloud Service.

See the following to obtain the required cloud services: http://docs.oracle.com/cloud/latest/trial_paid_subscriptions/index.html.

After the Oracle Cloud subscriptions are processed and the Oracle Cloud account is set up, you deploy Oracle Airlines Data Model on Oracle Cloud.

6.2 Oracle Database Cloud Service Requirements

Installing Oracle Airlines Data Model on Oracle Cloud requires a correctly configured Oracle Database Cloud Service instance.

Creating the Oracle Database Cloud Service Instance (page 6-2)
If the subscription type allows you to create an Oracle Database Cloud Service instance, then create the Oracle Database Cloud Service instance from the Cloud My Services console.

Requirements for Service and Database Configuration Parameters (page 6-2)
Specifies the service configuration and database configuration requirements for Oracle Airlines Data Model installation.

Monitoring Oracle Database Cloud Service Status (page 6-5)
After the Oracle Database Cloud Service request is accepted, you can monitor the status of the Oracle Database Cloud Service instance.

6.2.1 Creating a Secure Shell (SSH) Public/Private Key Pair

Create an SSH key pair with a public key and a private key to access the Oracle Database Cloud Service instance.

The SSH public key is used when you request the Oracle Database Cloud Service instance. After the Oracle Database Cloud Service instance is created you can access the instance by authenticating with the SSH private key.

1. By default, network access to the compute nodes associated with Oracle Database Cloud - Database as a Service is provided by Secure Shell (SSH). The first step to access the network is to create an SSH key pair.

See Also:

For more information, see Generating a Secure Shell (SSH) Public/Private Key Pair

---

6.2.2 Creating the Oracle Database Cloud Service Instance

If the subscription type allows you to create an Oracle Database Cloud Service instance, then create the Oracle Database Cloud Service instance from the Cloud My Services console.

If you are using a trial subscription, the Oracle Database Cloud Service instance is provided by Oracle and a service instance is provided in the My Services console.

1. To create a Oracle Database Cloud Service Instance, see: Creating a Database Deployment.

6.2.3 Requirements for Service and Database Configuration Parameters

Specifies the service configuration and database configuration requirements for Oracle Airlines Data Model installation.

Oracle Database Cloud Service Configuration

Check the following table for detailed service configuration parameter information.

Note:

There are several parameters that are mandatory for which you must provide input.

Table 6-1 Oracle Database Cloud Service Service Configuration Requirements

Parameter Name	Parameter Description	Mandatory/ Optional	Valid Values/Format
Service Level	Service level for the service instance	Mandatory	Oracle Database Cloud Service
Billing Frequency	Billing unit	Mandatory	Hourly Monthly
Software Release	Oracle Database software version	Mandatory	Oracle Database 12c Release 1
Software Edition	Database edition for the service instance	Mandatory	Enterprise Edition – High Performance or Enterprise Edition – Extreme Performance
Service Name	Name of Oracle Database Cloud Service instance	Mandatory	Must not exceed 50 characters. Must start with a letter. Must contain only letters, numbers, or hyphens. Must not contain any other special characters. Must be unique within the identity domain.
Description	Free-form text that provides additional information about the service instance	Optional	No Value

Shape	Desired compute shape. A shape defines the number of Oracle Compute Units (OCPUs) and amount of memory (RAM)	Mandatory	`oc3: 1 OCPU, 7.5 GB memory`
			`oc4: 2 OCPUs, 15 GB memory`
			`oc5: 4 OCPUs, 30 GB memory`
			`oc6: 8 OCPUs, 15 GB memory`
			`oc1m: 1 OCPU, 15 GB memory`
			`oc2m: 2 OCPUs, 30 GB memory`
			`oc3m: 4 OCPUs, 60 GB memory`
			`oc4m: 8 OCPUs, 120 GB memory`

Timezone	Timezone for the service instance	Mandatory	No Value
SSH Public Key	Public key for the secure shell (SSH). This key will be used for authentication when connecting to the Database as a Service instance using an SSH client. You generate an SSH public-private key pair using a standard SSH key generation tool.	Mandatory	No Value

Oracle Database Cloud Service Database Configuration

Note:

There are several parameters that are mandatory for which you must provide input.

Table 6-2 Oracle Database Cloud Service Database Configuration Requirements

Parameter Name	Parameter Description	Mandatory/ Optional	Default Value	Valid Values/Format
Usable Database Storage	Storage volume size for data. Default value is 25GB. Minimum allowed size is 15GB. Maximum allowed size is 500GB if backup destination is specified and 1000GB if no backup destination is specified.	Mandatory	25	15 to 500
Administration Password	Password for Oracle Database administrator users sys and system.	Mandatory	No value	Starts with a letter;Between 8 and 30 characters long;Contains letters, at least one number, and optionally, any number of these special characters: dollar sign ($), pound sign (#), and underscore (_);
DB Name (SID)	Database Name (sid) for the Database as a Service instance	Mandatory	orcl	string
PDB Name	Pluggable Database Name for the Database as a Service instance.	Mandatory	pdb1	string
Backup Destination	Backup destination	Mandatory	No value	Both Cloud Storage and Local Storage, Cloud Storage Only, None
Cloud Storage Container	Name of the Oracle Storage Cloud Service container used to provide storage for your service instance backups. Use the following format to specify the container name: *<storageservicename>-<storageidentitydomain>/<containername>*	Provide when Backup Destination IS NOT set to None	No Value	No Value

Table 6-2 (Cont.) Oracle Database Cloud Service Database Configuration Requirements

Parameter Name	Parameter Description	Mandatory/ Optional	Default Value	Valid Values/Format
Cloud Storage User Name	Username for the Oracle Storage Cloud Service administrator.	Provide when Backup Destination *is not* set to None	No Value	No Value
Cloud Storage Password	Password for the Oracle Storage Cloud Service administrator	Provide when Backup Destination *is not* set to None	No Value	No Value

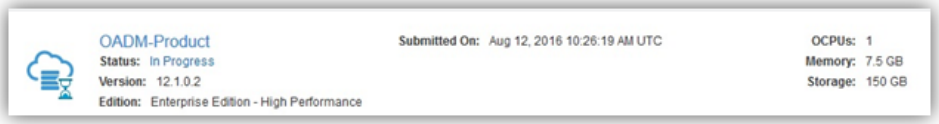
6.2.4 Monitoring Oracle Database Cloud Service Status

After the Oracle Database Cloud Service request is accepted, you can monitor the status of the Oracle Database Cloud Service instance.

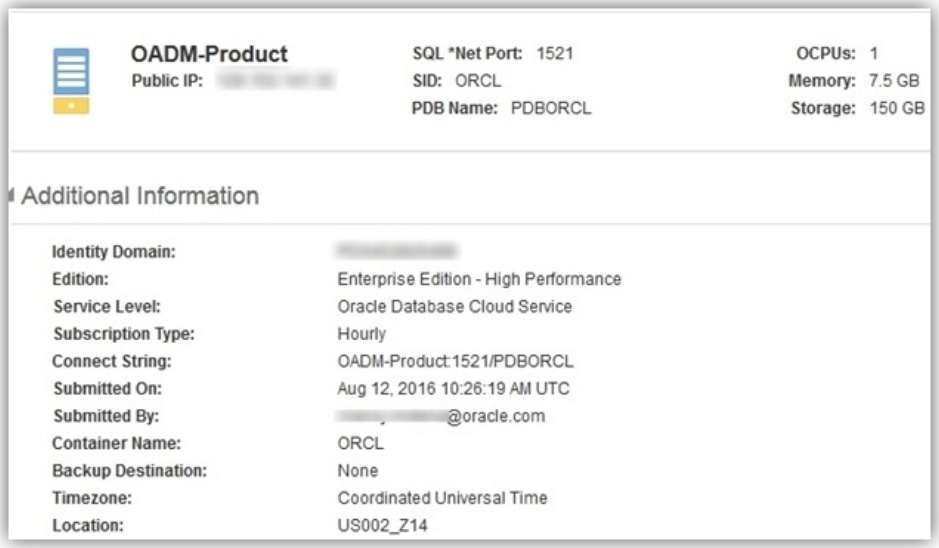
To monitor the status of the Oracle Database Cloud Service instance view the console (https://dbaas.oraclecloud.com/dbaas).

1. The figure shows the Oracle Database Cloud Service instance creation with status "In Progress":

   It takes about 20 minutes to create the Oracle Database Cloud Service instance.



2. Click the service name to show the details of the service such as *Public IP*, *SQL *NetPort*, *SID*, *PDB Name*, *Connect String*. The figure shows details for **OADM-Product** Oracle Database Cloud Service instance:



Related Topics:

Accessing Oracle DBaaS Monitor

6.3 Install Oracle Airlines Data Model on Oracle Cloud

Connect to Oracle Database Cloud Service VM (page 6-6)
Connect to the Oracle Database Cloud Service VM.

Adding the SYSTEM Username and Password to the Wallet (page 6-7)
Connect to the Oracle Database Cloud Service and set the `SYSTEM` password in the wallet for the OADM installation.

Install Oracle Airlines Data Model Shiphome (page 6-7)
Provides the steps required to run the install script to install the Oracle Airlines Data Model shiphome.

Monitor Oracle Airlines Data Model Installation Status (page 6-9)
The OADM "Airlines Data Model" installation takes about 15 minutes and the "Sample Reports" installation takes about 30 minutes. You can check the progress of the installation in the log files.

Unlock Oracle Airlines Data Model Database Accounts (page 6-9)
The **Airlines Data Model** installation option creates the Oracle Database accounts: `oadm_sys`, `oadm_user`, and `oadm_report`. The Oracle Airlines Data Model **Sample_Reports** installation option creates the Oracle Database account: `oadm_sample`. The accounts are locked. Depending on the installation type, unlock the accounts and set the passwords.

6.3.1 Connect to Oracle Database Cloud Service VM

Connect to the Oracle Database Cloud Service VM.

1. From a Linux machine, connect to the existing Oracle Database Cloud Service instance with SSH as oracle user:

```
SSH: ssh oracle@DBCS_VM_Public_IP_Address -i  ssh_private_key
```

Related Topics:

Connecting to a Compute Node Through Secure Shell (SSH)

Using a TNS Alias instead of a DB Connect String

6.3.2 Adding the SYSTEM Username and Password to the Wallet

Connect to the Oracle Database Cloud Service and set the SYSTEM password in the wallet for the OADM installation.

1. Oracle Database Cloud Service instance comes with default wallet, **db_wallet**. Add SYSTEM username and password to **db_wallet**:

```
mkstore -wrl /u01/app/oracle/admin/Container_DB_Name/db_wallet -createCredential TNS_Alias_of_PDB
SYSTEM SYSTEM_password
```

Where: ***Container_DB_Name***: is the SID of the Database.

Related Topics:

Connecting to a Compute Node Through Secure Shell (SSH)

Using a TNS Alias instead of a DB Connect String

6.3.3 Install Oracle Airlines Data Model Shiphome

Provides the steps required to run the install script to install the Oracle Airlines Data Model shiphome.

1. Create **oidm** directory in **oracle** user home directory:

```
[oracle@DBCS_Service_Name ~]$ cd /home/oracle
[oracle@DBCS_Service_Name ~]$ mkdir oidm
```

2. Change directory to **oidm:**

```
[oracle@DBCS_Service_Name ~]$ cd oidm
```

3. Download the **oidm_install.sh** script from the cloud storage container:

```
[oracle@DBCS_Service_Name oidm]$ wget https://storage.us2.oraclecloud.com/v1/dbcsswlibd-usoracle13098/OIDM/
oidm_install.sh
```

4. Modify the permissions for the **oidm_install.sh** script:

```
[oracle@DBCS_Service_Name oidm]$ chmod 755 oidm_install.sh
```

5. Copy the downloaded Oracle Airlines Data Model shiphome from your Linux machine to */home/oracle/oidm* directory on the Oracle Database Cloud Service instance. Ensure you are in the shell of your Linux machine, not the Oracle Database Cloud Service VM shell:

```
[user@your_linux_host_name current_directory_name]$ scp -i ssh_private_key OADM_shiphome_path
oracle@DBCS_VM_Public_IP_Address:/home/oracle/oidm
```

Where: ***OADM_shiphome_path***: is the file `oadm.zip`. When this is unzipped it creates the `oadm` directory.

6. Connect to DBCS VM and run the **oidm_install.sh** script and include the required parameters. The following table shows Oracle Airlines Data Model configuration parameters:

Table 6-3 Oracle Airlines Data Model Installation Configuration Parameters

Parameter Name	Parameter Description	Mandatory/Optional	Default Value	Valid Values/Format
db_oidm_prod_name	OIDM Product name	Mandatory	NONE	OADM
db_oidm_install_type	Install Type	Optional	Airlines_Data_Model	Airlines_Data_Model, Sample_Reports
db_oidm_cl_strt_dt	Calendar Start Date	Optional	"2015-01-01"	YYYY-MM-DD
db_oidm_cl_nbr_yrs	Calendar Number of Years	Optional	"5"	Number

7. You can also pass Oracle Database parameters to the script. If you have multiple PDBs in your container database, then you must pass the PDB name. The following table shows the Oracle Database parameters that you can pass to **oidm_install.sh** script:

Table 6-4 Oracle Airlines Data Model Database Installation Parameters

Parameter Name	Parameter Description
Ohome	Oracle Database Home
Obase	Oracle Base
datafile_loc	Data file Location
Sid	Container Database Identifier
pdb_name	Pluggable Database Name
system_passwd	SYSTEM user password.

Note:

It is not recommended to pass the SYSTEM password from command line for security reasons. It is recommended to store the SYSTEM password in the DB wallet. The script retrieves the password from the default wallet.

```
[oracle@DBCS_Service_Name oidm]$ ./oidm_install.sh db_oidm_prod_name=OADM pdb_name=PDBORCL
db_oidm_install_type=Airlines_Data_Model
```

Related Topics:

Connect to Oracle Database Cloud Service VM (page 6-6)
Connect to the Oracle Database Cloud Service VM.

6.3.4 Monitor Oracle Airlines Data Model Installation Status

The OADM "Airlines Data Model" installation takes about 15 minutes and the "Sample Reports" installation takes about 30 minutes. You can check the progress of the installation in the log files.

1. Connect to Oracle Database Cloud Service instance using SSH:

   ```
   ssh oracle@DBCS_VM_Public_IP_Address -i ssh_private_key
   ```

2. Check the log files to monitor OADM installation status:

   ```
   /home/oracle/tmp/name.out [Only for Fresh DBCS Instance]
   /home/oracle/oidm/oadm_install.sav
   /u01/app/oracle/cfgtoollogs/oadm/oadm_timestamp.log
   ```

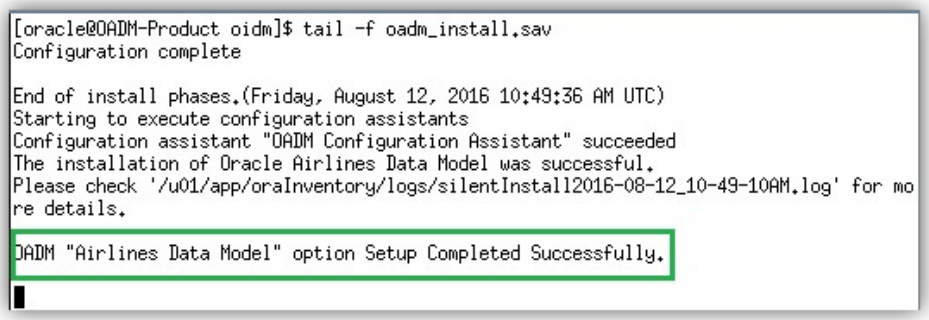
   After the installation completes, you should see one of the following messages in **oadm_install.sav**:

   ```
   OADM "OADM_install_type" option Setup Completed Successfully.

   OR

   OADM "OADM_install_type" option Setup Completed With Errors.
   Check OADM install config log at /u01/app/oracle/cfgtoollogs/oadm directory.
   ```

   If you see the first message, then the Oracle Airlines Data Model installation is completed successfully, otherwise the installation completed with errors.



6.3.5 Unlock Oracle Airlines Data Model Database Accounts

The **Airlines Data Model** installation option creates the Oracle Database accounts: `oadm_sys`, `oadm_user`, and `oadm_report`. The Oracle Airlines Data Model **Sample_Reports** installation option creates the Oracle Database account: `oadm_sample`. The accounts are locked. Depending on the installation type, unlock the accounts and set the passwords.

1. Log in as SYSTEM account:

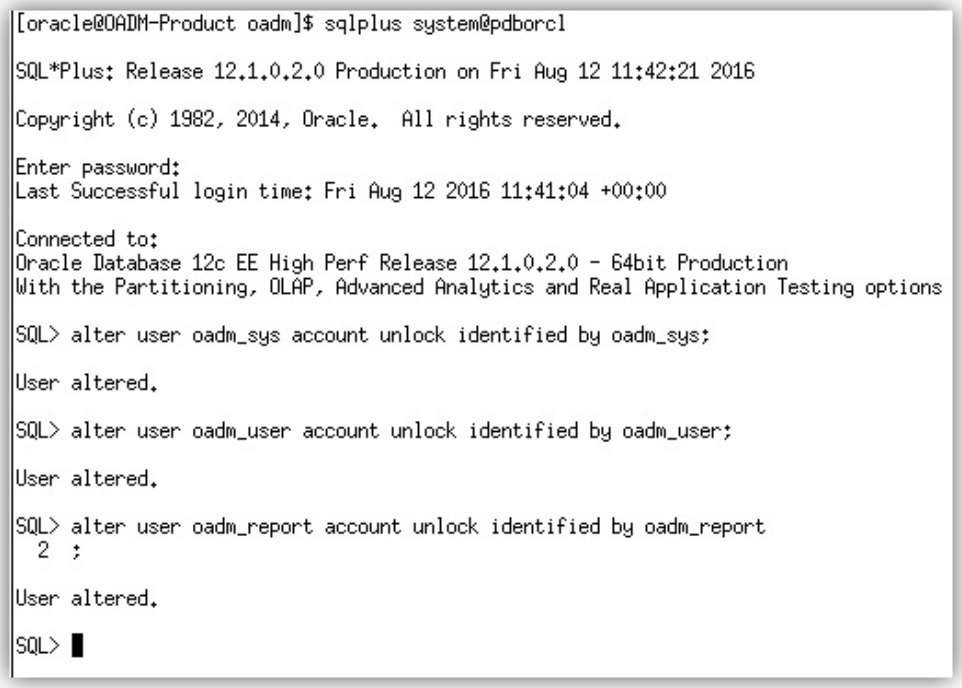
   ```
   sqlplus system@pdbname
   ```

2. For the **Airlines Data Model** installation option enter the SYSTEM password when prompted and unlock the accounts and modify the passwords:

```
alter user oadm_sys account unlock identified by new_password;
alter user oadm_user account unlock identified by new_password;
alter user oadm_report account unlock identified by new_password;
```

3. For the **Sample_Reports** installation option enter the SYSTEM password when prompted and unlock the account and modify the password:

```
alter user oadm_sample account unlock identified by new_password;
```



6.4 Oracle BI Cloud Service Requirements

Installing Oracle Airlines Data Model on Oracle Cloud requires a configured Oracle BI Cloud Service instance.

The Oracle Airlines Data Model product includes the OADM reports RPD and catalog. To use the out of the box sample reports, upload the RPD and catalog to Oracle BI Cloud Service instance. If you already have the Oracle BI Cloud Service instance, skip the first step.

Creating the Oracle BI Cloud Service Instance (page 6-11)
If the subscription type allows you to create an Oracle BI Cloud Service instance, you create the Oracle BI Cloud Service instance from the Cloud My Services console. If you are using a trial subscription, the instance is provided by Oracle and a service instance is provided in the My Services console.

Downloading Oracle Airlines Data Model RPD and Catalog (page 6-11)
Oracle Airlines Data Model installation copies product files to `$ORACLE_HOME/oadm` directory on the Oracle Database Cloud Service instance.

Modifying Oracle Airlines Data Model RPD (page 6-11)
Describes required modifications for the RPD file for Data Source Name, User Name, and Password for accessing the Oracle Airlines Data Model reports.

6.4.1 Creating the Oracle BI Cloud Service Instance

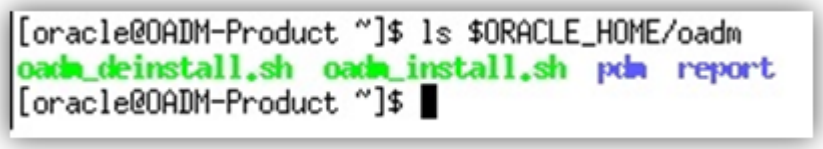
If the subscription type allows you to create an Oracle BI Cloud Service instance, you create the Oracle BI Cloud Service instance from the Cloud My Services console. If you are using a trial subscription, the instance is provided by Oracle and a service instance is provided in the My Services console.

1. To create a Oracle BI Cloud Service Instance, see: Creating a Service Instance.

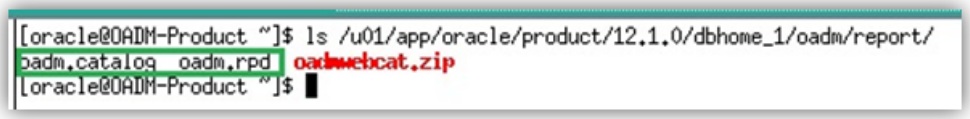
6.4.2 Downloading Oracle Airlines Data Model RPD and Catalog

Oracle Airlines Data Model installation copies product files to `$ORACLE_HOME/oadm` directory on the Oracle Database Cloud Service instance.

1. Listing the OADM installation directory shows the contents, including the report directory that contains the Catalog and RPD files.



2. Download `oadm.rpd` and `oadm.catalog` from Oracle Database Cloud Service instance to your local windows machine. You can find those files in the `$ORACLE_HOME/oadm/report` directory on the Oracle Database Cloud Service instance:



6.4.3 Modifying Oracle Airlines Data Model RPD

Describes required modifications for the RPD file for Data Source Name, User Name, and Password for accessing the Oracle Airlines Data Model reports.

After you download the RPD `oadm.rpd` to the windows machine, ensure that the Oracle Business Intelligence Developer Client tool is installed on the windows machine. If you do not have the Client tool, download it from OTN and install:

http://download.oracle.com/otn/nt/bi/111190/biee_client_install_x64.zip

or

http://download.oracle.com/otn/nt/bi/1221/Setup_BI_Client_12.2.1.0.0_Windows.X64.zip

1. Open Oracle Business Intelligence Developer Client Tool and open the RPD in offline mode. The RPD is password protected, so contact Oracle Support for the RPD password. After you enter the RPD password, modify the following properties of Connection Pool object of all databases in RPD physical layer:

   a. Modify **Data Source Name**, TNS string of Oracle Database Cloud Service instance PDB, where OADM is installed.

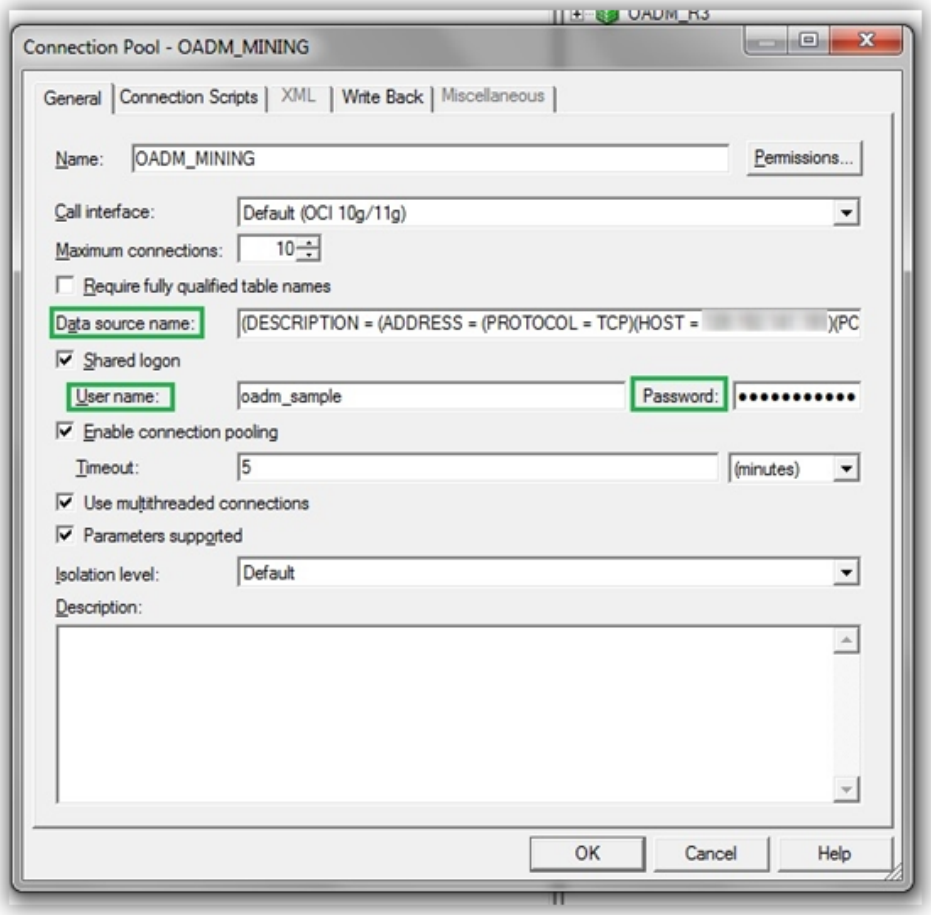
      For example:

```
(DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST = <DBCS VM Public IP>)(PORT = <DB Port>))
(CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME = <PDB name in Upper Case>.<Cloud Identity
Name>.oraclecloud.internal) ) )
```

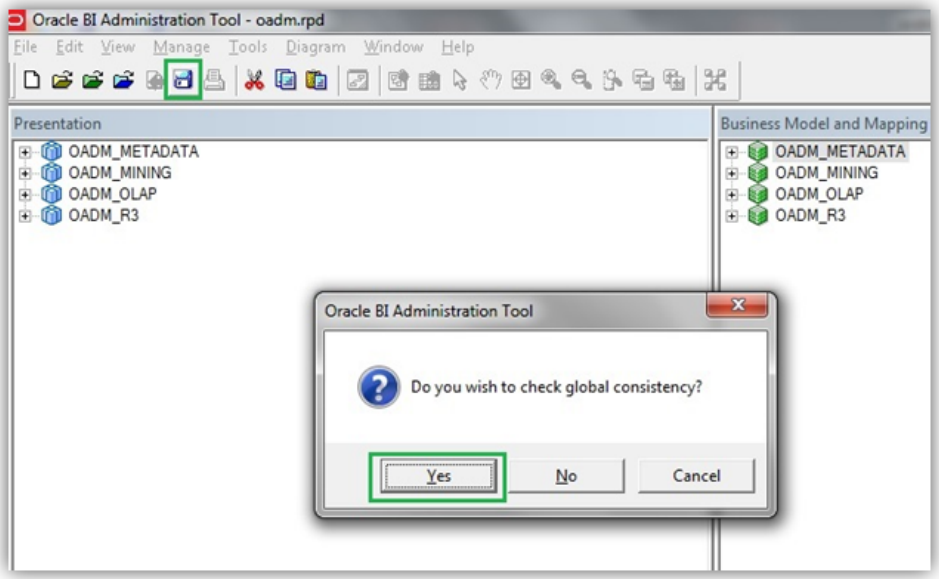
   b. Modify `User Name`, the OADM database user name.

      For example:. **oadm_sys** for "Airlines Data Model" install type and **oadm_sample** for "Sample Reports".

   c. Modify **Password**, the OADM database user password.



2. After modifying the connection pool properties for the servers in the RPD physical layer, save the RPD. When you click **OK**, Oracle BI Administration Tool prompts to check Global Consistency:



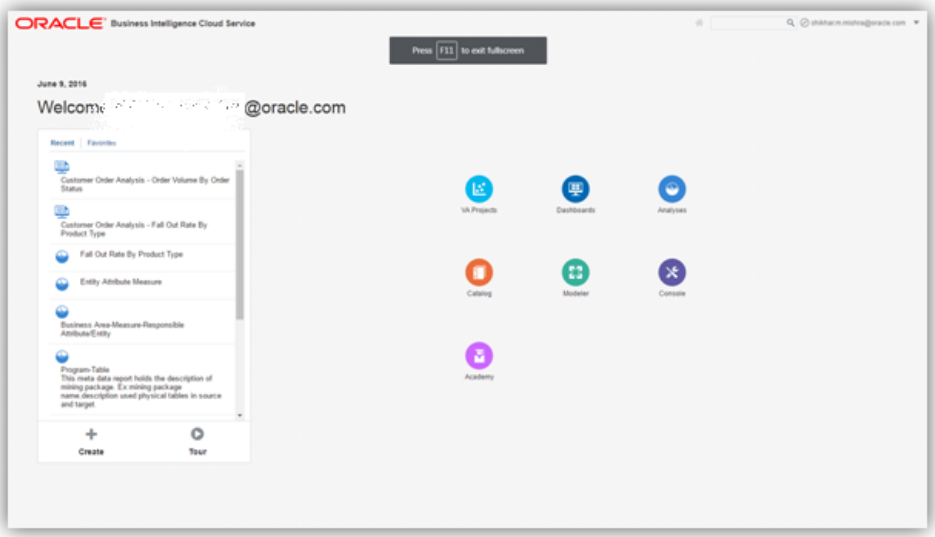
3. Click **Yes** and check for errors.

6.5 Uploading Oracle Airlines Data Model RPD to Oracle BI Cloud Service

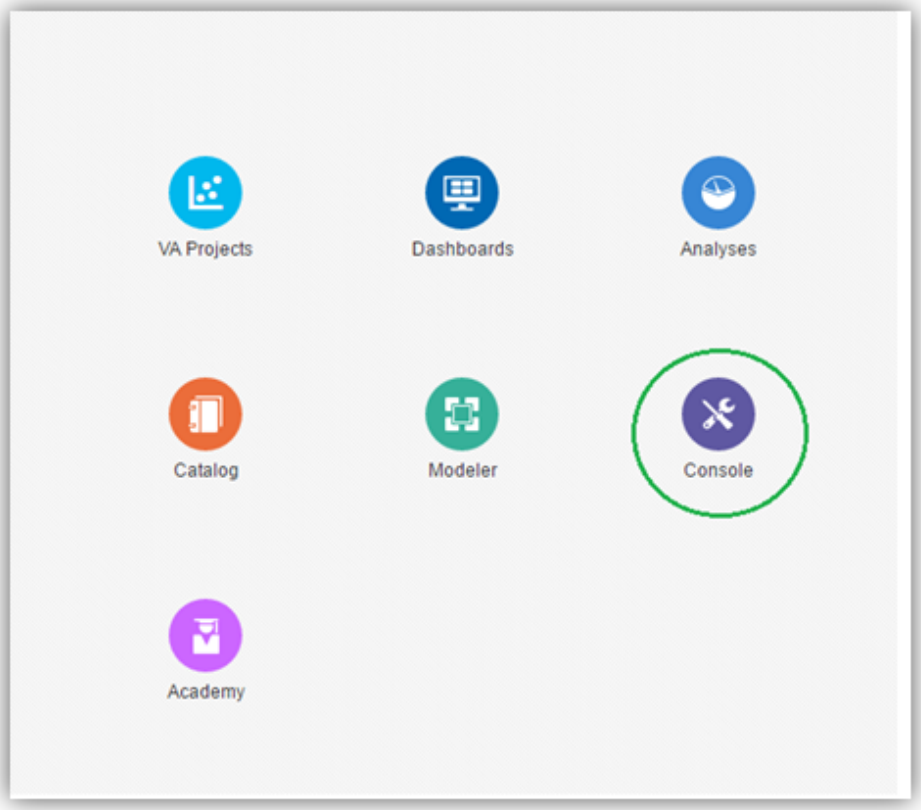
You upload the modified on-premise Oracle Airlines Data Model RPD to Oracle BI Cloud Service.

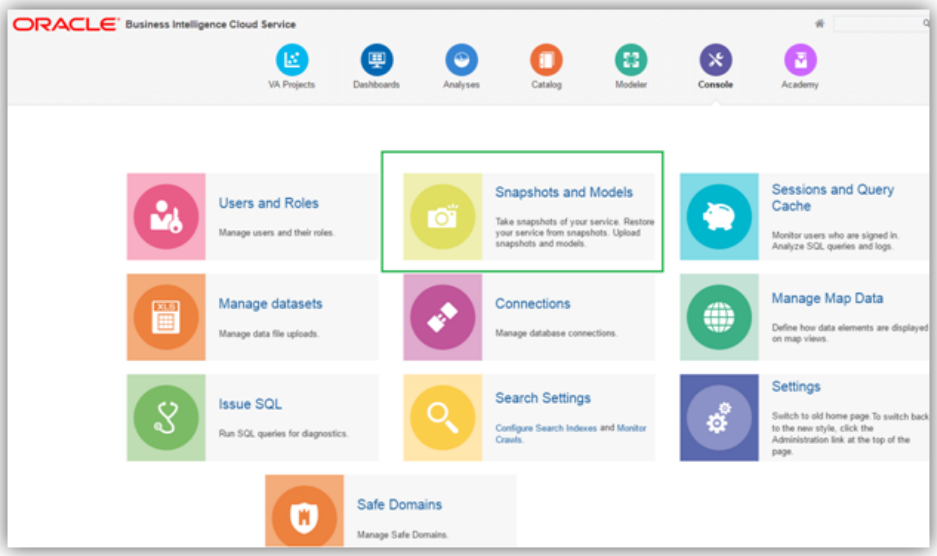
You should already have an Oracle BI Cloud Service instance. To determine the Oracle BI Cloud Service instance URL, go to My Services (http://myservices.us.oraclecloud.com) console, click the Oracle BI Cloud Service instance, and then find the Service Instance URL

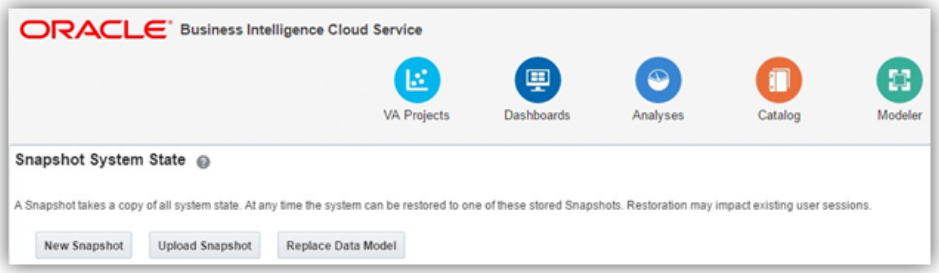
1. Open the Oracle BI Cloud Service instance URL in your browser:



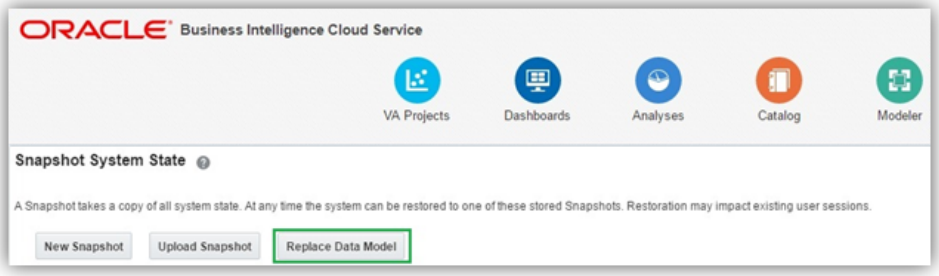
2. From the home page, navigate to ***Console -> Snapshots and Models*** Click ***Console -> Snapshots and Models*** to show the Snaphot System State:



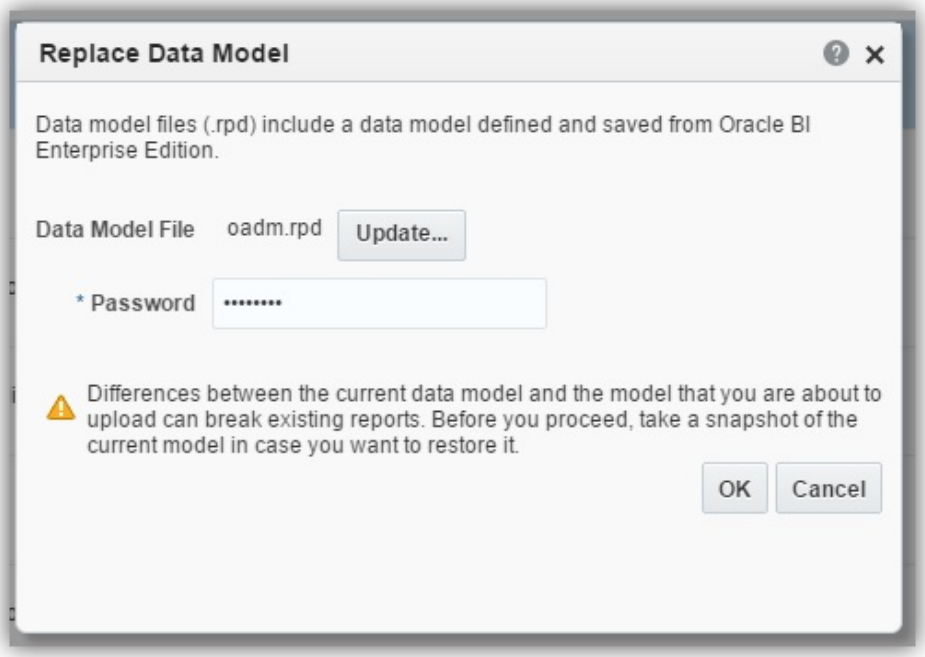




3. Click ***Replace Data Model*** to upload the modified on-premise repository, `oadm.rpd`.



4. Browse to select `oadm.rpd`. Enter the RPD password, and click **OK**.



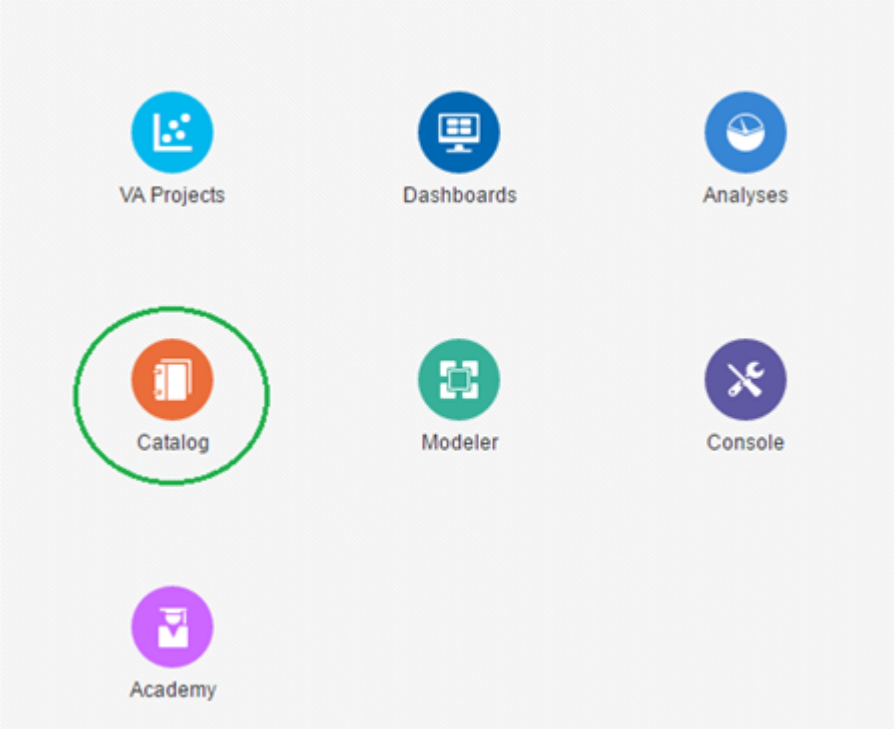
The Oracle BI Cloud Service console shows a message if the RPD uploads successfully. Otherwise the display shows an error message.

6.6 Uploading Oracle Airlines Data Model Catalog to Oracle BI Cloud Service

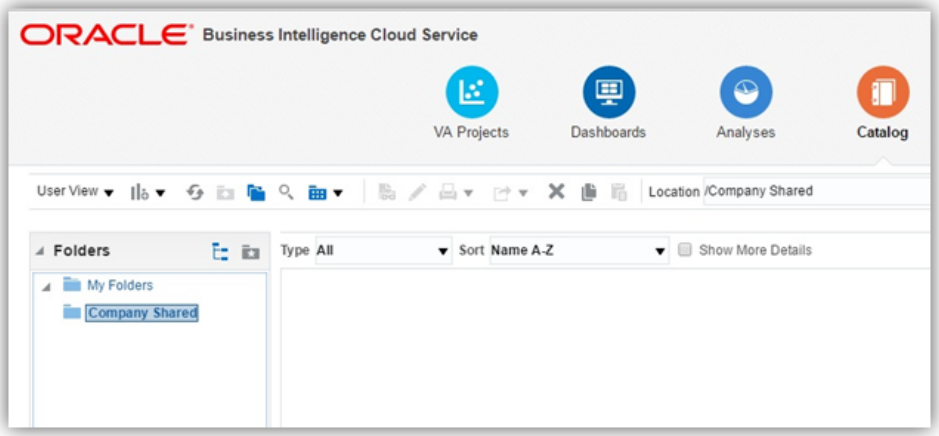
After you create an Oracle BI Cloud Service instance and upload the modified on-premise Oracle Airlines Data Model RPD to Oracle BI Cloud Service, then upload the OADM catalog.

You should already have an Oracle BI Cloud Service instance. To determine the Oracle BI Cloud Service instance URL, go to My Services (http://myservices.us.oraclecloud.com) page, click the Oracle BI Cloud Service instance, then find the Service Instance URL.

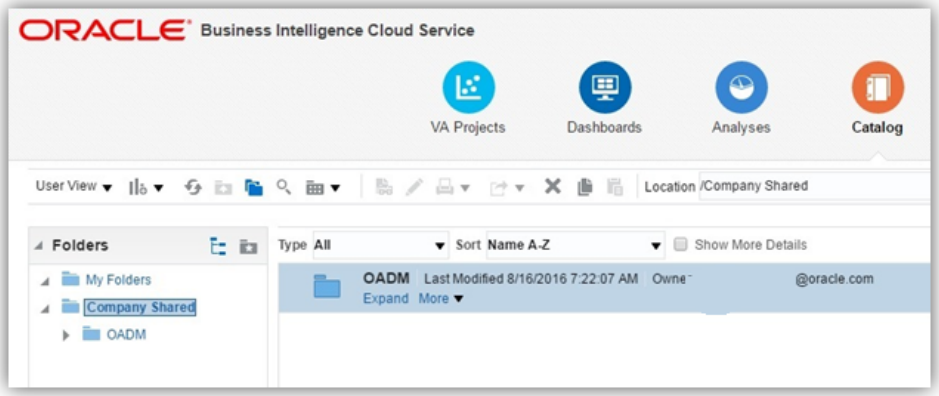
1. Open the Oracle BI Cloud Service instance URL in your browser. From the home page, navigate to **Catalog**.



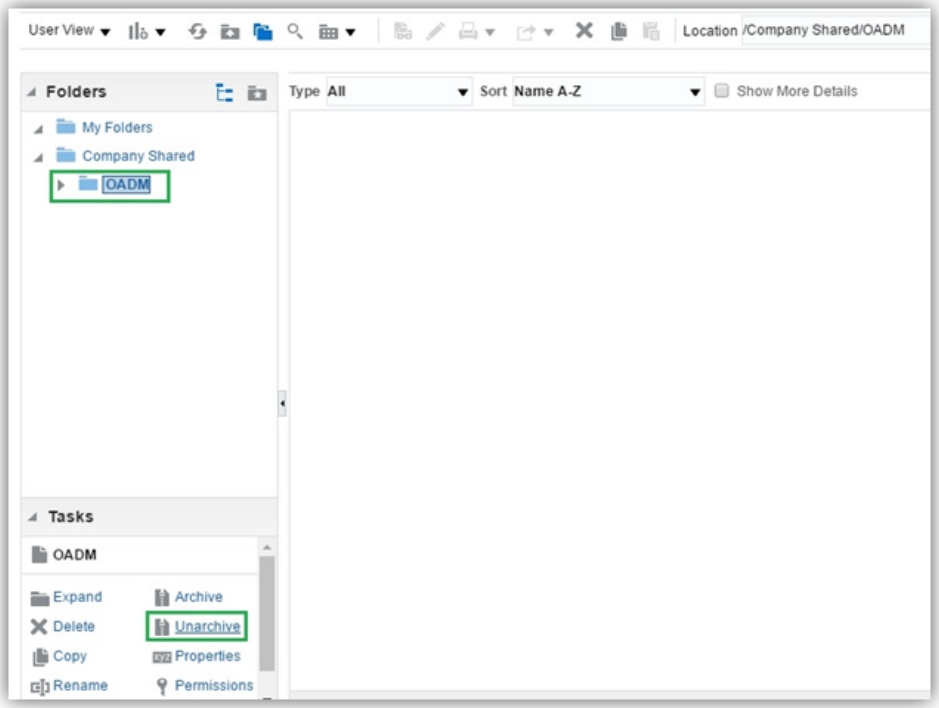
2. Click the **Company Shared** folder in the **Folders** pane.



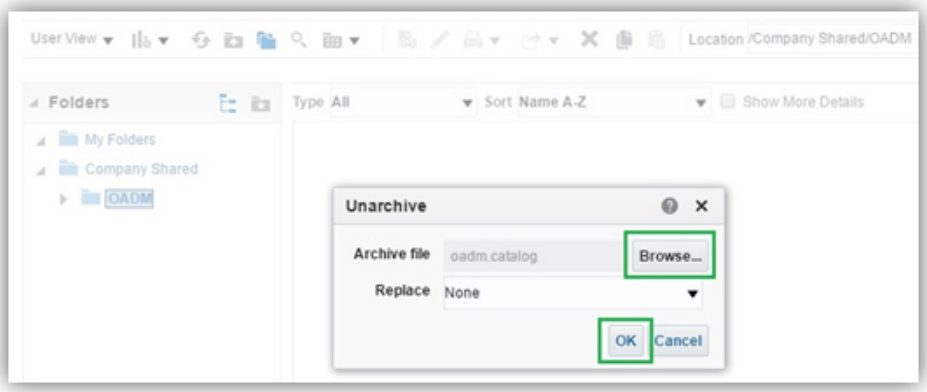
3. By default, the **Company Shared** folder contains the **Sample App** folder of the Sample App catalog. Create a new folder `OADM` in the **Company Shared** folder.



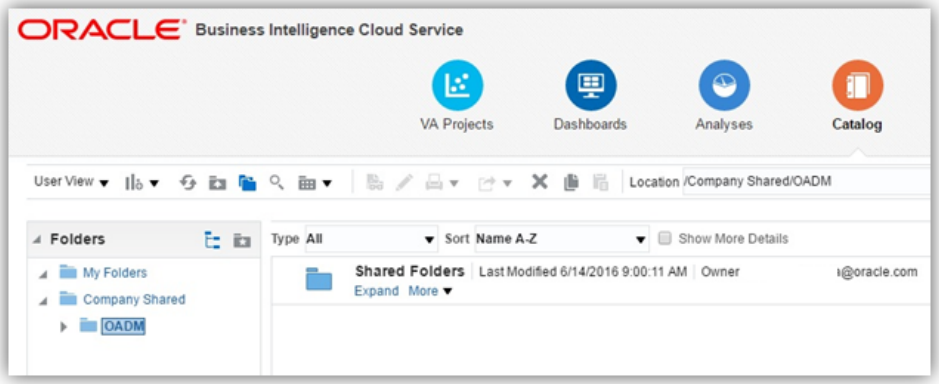
4. Upload the OADM catalog file (`oadm.catalog`). Click the ***OADM*** folder in **Folders** pane, and then click **Unarchive** in the **Tasks** pane.



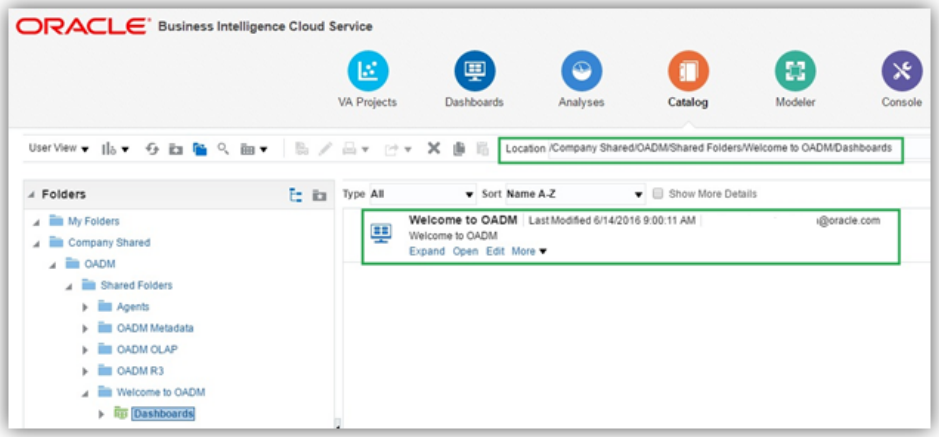
5. In the Unarchive dialog click **Browse** to select `oadm.catalog`. In the **Replace** field select **None** and click **OK**.



The **Shared Folders** are created in the **OADM** folder.



6. Navigate to ***Shared Folders -> Welcome to OADM -> Dashboards*** folder to open ***Welcome to OADM*** dashboard.



The ***Welcome to OADM*** dashboard has links to Oracle Airlines Data Model out of the box dashboards and links are organized by business area.

A

License Information

Describes licensing information for Oracle Airlines Data Model.

Product	Licensing Description
Oracle Airlines Data Model	Oracle Airlines Data Model is a pre-built approach to airline data warehousing enabling an airline company to realize the power of insight more quickly. Oracle Airlines Data Model includes the following: • Physical implementation of the data model consisting of a foundation layer in third-normal-form schema, as well as dimensional models leveraging star schemas and OLAP cubes. • Automatic data movement (intra-ETL) to populate the dimensional models based on data from the foundation layer. • Pre-defined data mining models for Customer Segmentation Analysis, Customer Loyalty Analysis, Customer Life Time Value Analysis, and Frequent Flyer Passenger Prediction. • Pre-built sample reports and dashboards. **Prerequisites**: Oracle Airlines Data Model requires Oracle Database Enterprise Edition, and the Oracle Partitioning option. Use of certain Oracle Airlines Data Model features, or other Oracle programs may require a license for other Oracle software. Please contact your Oracle sales representative for additional information.

Index

U