

# **Oracle® Communications Data Model**

Installation Guide

11g Release 2 (11.2)

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Oracle Communications Data Model Installation Guide, 11g Release 2 (11.2)

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# Contents

<b>Preface</b> .....	v
Audience .....	v
Documentation Accessibility .....	v
Related Documents .....	vi
Conventions .....	vi
<b>1 Hardware and Software Requirements</b>	
<b>Supported Platforms</b> .....	1-1
<b>Hardware Requirements</b> .....	1-2
<b>Software Requirements</b> .....	1-2
Oracle Database Requirements .....	1-2
Oracle Warehouse Builder .....	1-3
Oracle Business Intelligence Suite Enterprise Edition .....	1-3
<b>2 Introduction to Oracle Communications Data Model Installation</b>	
Types of Installations Provided for Oracle Communications Data Model .....	2-1
Overview of the Installation Process .....	2-3
<b>3 Installation of Oracle Communications Data Model</b>	
<b>Pre-installation Tasks</b> .....	3-1
Ensuring that Required Software is Installed .....	3-1
Confirming that Oracle Data Mining and OLAP Options are Installed .....	3-2
Confirming that the OWBSYS Schema Exists .....	3-2
Confirming that Oracle Business Intelligence Suite Enterprise Edition is Installed .....	3-2
Changing the Maximum Data Files Option .....	3-2
AIX Platform: Changing the Database Parameter .....	3-3
<b>Installer Execution</b> .....	3-3
<b>Silent Installation</b> .....	3-5
Selecting a Response File .....	3-5
Editing the Response File .....	3-6
Specifying a Response File and Starting the Installation .....	3-6
Silent Installation Log Files .....	3-6
Security Tips for Silent Installations .....	3-6
Error Handling .....	3-7
<b>Post-Installation Cleanup Tasks</b> .....	3-7

Unlocking the OCDM_SYS and OCDM_MINING Accounts .....	3-7
Unlocking the OCDM_SAMPLE_SYS Account.....	3-7
Assigning Grants to OCDM_MINING .....	3-7
Ensuring That Oracle Communications Data Model Objects Are Valid .....	3-8

## **4 Installation of Additional Components**

<b>Installing and Configuring Workflow</b> .....	4-1
Installing Oracle Warehouse Builder Workflow .....	4-1
Importing Oracle Communications Data Model Intra-ETL into Workflow .....	4-2
Configuring Oracle Warehouse Builder Workflow .....	4-2
<b>Creating a Oracle Business Intelligence Suite Enterprise Edition Catalog</b> .....	4-2
<b>Installing Analytic Workspace Manager</b> .....	4-4

## **5 Backup, Recovery, and Deinstallation of Oracle Communications Data Model**

<b>Backing Up and Recovering Oracle Communications Data Model</b> .....	5-1
Exporting Oracle Communications Data Model .....	5-1
Importing Oracle Communications Data Model.....	5-2
<b>Overview: Deinstalling Oracle Communications Data Model</b> .....	5-2
<b>Pre-Deinstallation Tasks</b> .....	5-2
<b>Deinstallation Script Execution</b> .....	5-3
<b>Post-Deinstallation Tasks</b> .....	5-3

## **Index**

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# Preface

The *Oracle Communications Data Model Installation Guide* describes how to install and configure Oracle Communications Data Model.

## Audience

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

Installation of Oracle Communications Data Model requires basic knowledge of Oracle Database, Oracle OLAP, Oracle Data Mining, Oracle Warehouse Builder, and Oracle Business Intelligence Suite Enterprise Edition.

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<http://www.fcc.gov/cgb/consumerfacts/trs.html>, and a list of phone numbers is available at <http://www.fcc.gov/cgb/dro/trsphonebk.html>.

## Related Documents

For more information about Oracle Communications Data Model, see the following documents in the Oracle Communications Data Model documentation set:

- *Oracle Communications Data Model Reference*
- *Oracle Communications Data Model Release Notes*

## Conventions

The following text conventions are used in this document:

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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# Hardware and Software Requirements

This chapter describes the hardware and software requirements of Oracle Communications Data Model:

- [Supported Platforms](#)
- [Hardware Requirements](#)
- [Software Requirements](#)

Before you install Oracle Communications Data Model, you must verify that all hardware and software requirements are met.

## Supported Platforms

Oracle Communications Data Model 11g Release 2 (11.2) is supported on the following platforms. For each platform, the given operating system version or later versions are required:

- Linux x86
  - Oracle Enterprise Linux 4 Update 7
  - Oracle Enterprise Linux 5 Update 2
  - Red Hat Enterprise Linux 4 Update 7
  - Red Hat Enterprise Linux 5 Update 2
- Linux x86-64
  - Oracle Enterprise Linux 4 Update 7
  - Oracle Enterprise Linux 5 Update 2
  - Red Hat Enterprise Linux 4 Update 7
  - Red Hat Enterprise Linux 5 Update 2
- Solaris SPARC (64-bit)
  - Solaris 10 U6 (5.10-2008.10)
- AIX 5L Based Systems (64-bit)
  - AIX 5L V5.3 TL 09 SP1 ("5300-09-01"), 64 bit kernel
  - AIX 6.1 TL 02 SP1 ("6100-02-01"), 64-bit kernel

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**Note:** There are special considerations when installing Oracle Communications Data Model on AIX, see "[AIX Platform: Changing the Database Parameter](#)" on page 3-3,

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- HP-UX Itanium
  - HP-UX 11i V3 patch Bundle Sep/ 2008 (B.11.31.0809.326a) or higher

## 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 Communications Data Model, the minimum hardware requirement is disk space of at least 10 GB.

## Software Requirements

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

- Operating System: For details of supported platforms, see "[Supported Platforms](#)" on page 1-1.
- Oracle Database 11g Release 2 Enterprise Edition, including the Oracle Data Mining Option and the Oracle OLAP Option. See "[Oracle Database Requirements](#)" on page 1-2.
- Oracle Warehouse Builder. See "[Oracle Warehouse Builder](#)" on page 1-3. (Oracle Warehouse Builder is required to use the ETL supplied with Oracle Communications Data Model.)
- Oracle Business Intelligence Suite Enterprise Edition. See "[Oracle Business Intelligence Suite Enterprise Edition](#)" on page 1-3. (Optional for Oracle Communications Data Model component installation. Required for sample report installation.)

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**Note:** The recommended patches and software versions are accurate as of product release. For latest recommendations for database and Oracle OLAP for supported platforms, see [http://www.oracle.com/technology/products/bi/olap/colateral/olap\\_certification.html](http://www.oracle.com/technology/products/bi/olap/colateral/olap_certification.html).

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## Oracle Database Requirements

Oracle Communications Data Model requires Oracle Database 11g Release 2 Enterprise Edition.

**Tip:** When you install the Database ensure that the database character set is UTF8 to support multi-language installations since Oracle Communications Data Model permits the installation of support for English and one other language.



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

- Oracle Partitioning
- Oracle Online Analytical Processing (OLAP)
- Oracle Data Mining

**Tip:** To confirm that you have Oracle Data Mining and OLAP options installed, follow the instructions outlined in "[Confirming that Oracle Data Mining and OLAP Options are Installed](#)" on page 3-2.

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

## Oracle Warehouse Builder

Oracle Communications Data Model requires the version of Oracle Warehouse Builder that comes as with Oracle Database 11g Release 2 Enterprise Edition. The ETL provided with Oracle Communications Data Model uses Oracle Warehouse Builder. For instructions on installing and configuring Oracle Warehouse Builder, see *Oracle Warehouse Builder Installation and Administration Guide for Windows and Linux*.

**Tip:** To confirm that you have Oracle Warehouse Builder installed, follow the instructions outlined in "[Confirming that the OWBSYS Schema Exists](#)" on page 3-2.

## Oracle Business Intelligence Suite Enterprise Edition

You must have the Oracle Business Intelligence Suite Enterprise Edition installed before you install the Oracle Communications Data Model sample reports. (Oracle Business Intelligence Suite Enterprise Edition is not required for the installation of the Oracle Communications Data Model component.)

Oracle Business Intelligence Suite Enterprise Edition 10.1.3.3 or higher can be downloaded from Oracle Technology Network at:

<http://www.oracle.com/technology/software/products/ias/htdocs/101320bi.html>

Installation instructions are included in the documentation.



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# Introduction to Oracle Communications Data Model Installation

This chapter describes how to install Oracle Communications Data Model and other components you use to create a Oracle Communications Data Model data warehouse:

- [Types of Installations Provided for Oracle Communications Data Model](#)
- [Overview of the Installation Process](#)

## Types of Installations Provided for Oracle Communications Data Model

Using the Oracle Installer you can perform two types of Oracle Communications Data Model installations:

- Installation of the Oracle Communications Data Model component, itself. You *must* install this component to create an Oracle Communications 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.

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

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

### Communications Data Model Installation

When you perform a **Communications Data Model** installation of Oracle Communications Data Model, Installer installs the Oracle Communications Data Model component without data. Specifically, Installer creates the following schemas in the target database:

- `ocdm_sys` which is the main schema for Oracle Communications Data Model. This schema contains all the relational and OLAP components of Oracle Communications Data Model.
- `ocdm_mining` which is the data mining schema of Oracle Communications Data Model. This schema contains all the mining components of Oracle Communications Data Model.

**See:** For detailed information about all created objects in the OCDM\_SYS and OCDM\_MINING schemas, see the *Oracle Communications Data Model Reference*.

There is no data in these two schemas. You need to populate data into OCDM schema.

### Sample Reports Installation

When you perform a **Sample Reports** installation of the Oracle Communications Data Model, Installer creates the Oracle Communications Data Model sample schema in the target database, and copies and configures all the sample reports to your OBIEE server. Specifically, the Installer installs:

- The following files that provide the data for the sample reports:
  - `ocdm_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 Communications Data Model.

**Tip:** The default user name and password for the schemas are `ocdm_sample_sys`.

- `ocdm_sample.eif` which is a dump file containing sample data for the Oracle Communications Data Model analytic workspace (that is, the OLAP cubes).
- The following files that define and create the sample reports:
  - `ocdm.rpd`
  - `ocdmwebcat.zip`

### Oracle Communications Data Model Home Directory Structure

The installation image contains the following directories under `ORACLE_HOME/ocdm`:

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

Subdirectory	Description
<code>relational</code>	Relational schema installation scripts and relational related files
<code>relational/calendar</code>	Calendar data population package
<code>relational/ddl</code>	Relational schema installation scripts
<code>relational/intra_etl</code>	Intra-ETL Oracle Warehouse Builder dump and related files
<code>relational/lookup_value</code>	Lookup data population script
<code>relational/sample_schema</code>	Physical sample schema
<code>mining</code>	Data mining scripts and related files
<code>olap</code>	OLAP scripts and related files

## Overview of the Installation Process

Installation of Oracle Communications Data Model requires the following tasks

1. Read *Oracle Communications Data Model Release Notes* to identify any last minute changes.
2. Verify that your system is one of the supported platforms and that it satisfies the hardware and software requirements as described in [Chapter 1, "Hardware and Software Requirements."](#)
3. Identify and perform any necessary pre-installation tasks, as described in ["Pre-installation Tasks"](#) on page 3-1.
4. Install the Oracle Communications Data Model component or the Oracle Communications Data Model sample reports, as described in ["Installer Execution"](#) on page 3-3.

**Tip:** you can also perform a silent installation, see ["Silent Installation"](#) on page 3-5 for more information.

5. Identify and perform any necessary post-installation tasks, as described in ["Post-Installation Cleanup Tasks"](#) on page 3-7.
6. Install the additional components that you need to create an Oracle Communications Data Model data warehouse or run the sample reports, as described in [Chapter 4, "Installation of Additional Components."](#)

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**Note:** To deinstall Oracle Communications Data Model, follow the directions in [Chapter 5, "Backup, Recovery, and Deinstallation of Oracle Communications Data Model."](#) You *must* deinstall Oracle Communications Data Model before you re-install it.

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# Installation of Oracle Communications Data Model

This chapter describes how to install Oracle Communications Data Model:

- [Pre-installation Tasks](#)
- [Installer Execution](#)
- [Silent Installation](#)
- [Post-Installation Cleanup Tasks](#)

## Pre-installation Tasks

Before you install the Oracle Communications Data Model, perform the following tasks:

- Back up the Oracle Database.
- Ensure that the software required for Oracle Communications Data Model is installed, as described in "[Ensuring that Required Software is Installed](#)" on page 3-1.
- Increase the maximum number of data files, as described in "[Changing the Maximum Data Files Option](#)" on page 3-2.
- If you are installing Oracle Communications Data Model on one of the AIX platforms listed in "[Supported Platforms](#)" on page 1-1, change an Oracle Database parameter as described in "[AIX Platform: Changing the Database Parameter](#)" on page 3-3.

## Ensuring that Required Software is Installed

As discussed in "[Software Requirements](#)" on page 1-2, you must have certain software installed before you can successfully install the Oracle Communications Data Model component or the Oracle Communications Data Model sample data and reports.

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

- Before you install Oracle Communications Data Model:
  - Confirm that the required Database options are installed by following the steps outlined in "[Confirming that Oracle Data Mining and OLAP Options are Installed](#)" on page 3-2.

- Confirm that Oracle Warehouse Builder is installed by following the steps outlined in ["Confirming that the OWBSYS Schema Exists"](#) on page 3-2.
- Before you install the sample data and reports for Oracle Communications Data Model, confirm that Oracle Business Intelligence Suite Enterprise Edition is installed as described in ["Confirming that Oracle Business Intelligence Suite Enterprise Edition is Installed"](#) on page 3-2.

### Confirming that Oracle Data Mining and OLAP Options are Installed

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

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

If these queries return TRUE, the options are installed.

### Confirming that the OWBSYS Schema Exists

To check that OWBSYS schema exists, log in to the Database as DBA and issue the following statements:

```
SELECT COUNT(*) FROM DBA_USERS WHERE USERNAME='OWBSYS';
```

If this query returns a value larger than zero (0), OWBSYS schema exists.

If the OWBSYS schema does not exist, take the following steps:

1. Go to the \$ORACLE\_HOME/owb/UnifiedRepos directory.
2. Login to the Database as SYSDBA.
3. Execute the following SQL statement.

```
@cat_owb.sql
```

4. When prompted to enter a tablespace name, input USERS

### Confirming that Oracle Business Intelligence Suite Enterprise Edition is Installed

To test that Oracle Business Intelligence Suite Enterprise 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 Enterprise Edition port; if you specified a different port when you installed Oracle Business Intelligence Suite Enterprise Edition, use the value for that port.)

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

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

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

If Oracle Business Intelligence Suite Enterprise Edition is not installed, see ["Oracle Business Intelligence Suite Enterprise Edition"](#) on page 1-3.

## Changing the Maximum Data Files Option

Oracle Communications Data Model supports the partition of transaction-related fact tables according to your data volume estimation. You can specify the start year, end



year and then the transaction related fact tables are partitioned by the date as one partition for each month.

In order 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.

#### 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:

$$\text{Maximum Datafiles} = \text{Default Value} + 300 + ((\text{End year}) - (\text{Start year}) + 1) * 12$$

#### 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 DBA 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
```

## AIX Platform: Changing the Database Parameter

If you are installing Oracle Communications Data Model on AIX, apply the following Oracle Database parameter change:

1. Login to the Database with DBA account.
2. Execute the following statement:

```
alter system set "_olap_parallel_update_small_threshold"=2147483647
scope=spfile;
```

3. Restart the Database.

## Installer Execution

Before you install Oracle Communications Data Model, perform the necessary pre-installation tasks described in "[Pre-installation Tasks](#)" on page 3-1

Follow these steps to install Oracle Communications 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 Communications Data Model as used to install the Oracle Database and Oracle Business Intelligence Suite Enterprise Edition.
2. Set the ORACLE\_HOME environment variable to the location of the Database on which to install Oracle Communications Data Model.

For example, suppose that Oracle Home is in the directory  
`/loc/app/oracle/product/11.2.0/`

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

```
$ ORACLE_HOME=/loc/app/oracle/product/11.2.0/
$ export ORACLE_HOME
```

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

```
% setenv ORACLE_HOME /loc/app/oracle/product/11.2.0/
```

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

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

4. The **Welcome** page is displayed. Click **Next**.
5. In the **Select Installation Type** page, select the type of Oracle Communications Data Model installation that you want to perform:
  - If you want to install the Oracle Communications Data Model component, select **Communications Data Model**. Making this selection performs the installation described in "[Communications Data Model Installation](#)" on page 2-1.
  - If you want to install the Oracle Communications Data Model sample reports and sample data, select **Sample Reports**. Making this selection performs the installation described in "[Sample Reports Installation](#)" on page 2-2.

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

Click **Next**.

9. In the **Specify OCDM Schema Information** page, specify where all of the data files that correspond to the Oracle Communications Data Model tablespace should reside:
  - If you do *not* want to use want to 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. You can click **Browse** to navigate to any valid local data file path. Click **Next**.
  - If you have stored your Oracle database files using the Automatic Storage Management (ASM) feature, and you also want store Oracle Communications 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 Communications Data Model data files. Click **Next**.

10. In the **Specify OBIEE Home** page, select the **Oracle BI Home** and the **Oracle BI Data Home** directories and on your system. You can click **Browse** to navigate to any valid local data file path. Click **Next**.
11. In the **Specify Calendar Data Range** page, specify the calendar data range by providing values for **Start Date** and **Number of Years**. This information is used to populate the calendar data.

Start Date must be in the format YYYY-MM-DD; for example, 2007-01-01 stands for January 1, 2007. Number of Years must be a whole number.

Click **Next**.

12. The installer summarizes the information that you specified. 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 Communications 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 described in ["Post-Installation Cleanup Tasks"](#) on page 3-7. Then install the other components that you need to create an Oracle Communications Data Model warehouse, as described in [Chapter 4, "Installation of Additional Components."](#)

## Silent Installation

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.

### Selecting a Response File

Before performing a silent installation, you must provide information specific to your installation in a response file. The installer will fail 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 (`cdm.rsp`) is located in the `/response` directory in the directory that contains the Oracle Communications 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.

## Editing the Response File

Use any text editor to edit the response file to include information specific to your system. 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", "StringValue 2"}
```

The values that are given as *<Value Required>* must be specified for silent installation. Remove the comment from the variable values in the response file before starting the Oracle Communications Data Model installation.

## 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 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. To perform a silent installation, use the `-silent` parameter as follows:

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

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**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.

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## Silent Installation Log Files

The success or failure of silent installations is logged in the `installActions.log` file. Additionally, the silent installation creates the `silentInstall.log` file. The log files are created in the `/oraInventory/logs` directory. The `silentInstallDate_Time.log` file contains the following line if the installation was successful:

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

The corresponding `installActionsDate_Time.log` file contains specific information regarding installation.

## Security Tips for Silent Installations

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

- 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.

## Error Handling

Values for variables that are of the wrong context, format, or type are treated as if no value were specified. Variables that are outside any section are ignored. 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 will fail.

## Post-Installation Cleanup Tasks

Once you have executed the Installer take the following steps to perform post-installation cleanup:

1. Unlock the `OCDM_SYS` and `OCDM_MINING` accounts, as described in ["Unlocking the `OCDM\_SYS` and `OCDM\_MINING` Accounts"](#) on page 3-7.
2. If you installed the Oracle Communications Data Model sample reports, unlock the `OCDM_SAMPLE_SYS` account, as described in ["Unlocking the `OCDM\_SAMPLE\_SYS` Account"](#) on page 3-7.
3. Assign grants to `OCDM_MINING`, as described in ["Assigning Grants to `OCDM\_MINING`"](#) on page 3-7.
4. Ensure that the Oracle Communications Data Model objects are valid, as described in ["Ensuring That Oracle Communications Data Model Objects Are Valid"](#) on page 3-8.

After performing this cleanup, install the other components that you need to create an Oracle Communications Data Model warehouse, as described in [Chapter 4, "Installation of Additional Components."](#)

### Unlocking the `OCDM_SYS` and `OCDM_MINING` Accounts

At the end of the installation, the `OCDM_SYS` and `OCDM_MINING` accounts are locked. Log in the Database with a DBA id and password and unlock the accounts by issuing the following SQL statements.

```
alter user ocdm_sys account unlock;
alter user ocdm_mining account unlock;
```

### Unlocking the `OCDM_SAMPLE_SYS` Account

At the end of the installation of the Oracle Communications Data Model sample reports, the `OCDM_SAMPLE_SYS` account is locked. Log in the Database with a DBA id and password and unlock the account by issuing the following SQL statement.

```
alter user ocdm_sample_sys account unlock identified by ocdm_sample_sys;
```

### Assigning Grants to `OCDM_MINING`

Assign the proper grants to `OCDM_MINING`, by following these steps:

1. Log in to the database using an ID that has been granted the system privilege with the `ADMIN OPTION` or that has been granted the `GRANT ANY PRIVILEGE` system privilege.
2. Execute the following SQL statements:

```
grant ALTER ANY MINING MODEL to ocdm_mining;
grant DROP ANY MINING MODEL to ocdm_mining;
grant SELECT ANY MINING MODEL to ocdm_mining;
```

```
grant CREATE JOB to ocdm_mining;  
grant CREATE PROCEDURE to ocdm_mining;  
grant CREATE SEQUENCE to ocdm_mining;  
grant CREATE SESSION to ocdm_mining;  
grant CREATE SYNONYM to ocdm_mining;  
grant CREATE TABLE to ocdm_mining;  
grant CREATE TYPE to ocdm_mining;  
grant CREATE VIEW to ocdm_mining;  
grant EXECUTE ON ctxsys.ctx_ddl to ocdm_mining;
```

## Ensuring That Oracle Communications Data Model Objects Are Valid

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

```
exec utl_recomp.recomp_serial('OCDM_SYS');  
exec utl_recomp.recomp_serial('OCDM_MINING');
```

---

## Installation of Additional Components

This chapter describes how to install Oracle components that you did not need to install before you installed the Oracle Communications Data Model component or sample reports, but that you will use when you are creating a Oracle Communications Data Model data warehouse:

- [Installing and Configuring Workflow](#)
- [Creating a Oracle Business Intelligence Suite Enterprise Edition Catalog](#)
- [Installing Analytic Workspace Manager](#)

### Installing and Configuring Workflow

There are two ways to execute the Oracle Communications Data Model intra-ETL:

- Without using Oracle Warehouse Builder Workflow. In this case, you execute the following file:

```
$Oracle_Home/ocdm/pdm/relational/intra_etl/owb_exec/ ocdm_execute_wf.sh
```

In this case, you do *not* need to install and configure Workflow as explained in this topic.

- Using Oracle Warehouse Builder Workflow. The Intra-ETL provided in Oracle Communications Data Model that populates your Oracle Communications Data Model data warehouse uses a process flow designed using the Oracle Warehouse Builder Workflow component.

In this case, before you can execute that intra-ETL you must perform the following tasks:

1. Install Oracle Warehouse Builder Workflow, as described in "[Installing Oracle Warehouse Builder Workflow](#)" on page 4-1.
2. Import the Oracle Communications Data Model intra-ETL into Workflow, as described in "[Importing Oracle Communications Data Model Intra-ETL into Workflow](#)" on page 4-2.
3. Configure Oracle Warehouse Builder Workflow to work with Oracle Communications Data Model, as described in "[Configuring Oracle Warehouse Builder Workflow](#)" on page 4-2.

### Installing Oracle Warehouse Builder Workflow

To install Oracle Warehouse Builder workflow, take the following steps:

1. Go to `$ORACLE_HOME/owb/wf/install`

2. Execute `wfinstall.csh`

The Oracle Workflow Configuration Assistant opens.

3. Enter values for the Workflow account, Workflow, SYS password, and TNS Connect Descriptor.

For TNS Connect Descriptor, use the following syntax where you replace *local-host*, *port-number*, and *service-name* with the appropriate values.

```
(DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP) (HOST=local-host) (PORT = port-number))) (CONNECT_DATA = (SERVICE_NAME = service-name))
```

Click **Submit**.

## Importing Oracle Communications Data Model Intra-ETL into Workflow

To import the Oracle Communications Data Model intra-ETL into Workflow, take the following steps:

1. Log into the Design Center of Oracle Warehouse Builder.
2. Select **File**, then **Import**, and then **Warehouse Builder Metadata**.
3. For file, specify the following value:  
`$ORACLE_HOME/ocdm/pdm/relational/intra_etl/owb/OCDM_Intra_ETL.mdl`
4. Select **Import selected objects from file**, then click **Select Object**.
5. Select **OLAP\_PFLW**, then click > (Continue).
6. Click **OK**.
7. Click **Import**.
8. After the import, you can see OLAP\_PFLW under OCDM\_INTRA\_ETL project of Oracle Workflow.

## Configuring Oracle Warehouse Builder Workflow

To configure Oracle Warehouse Builder workflow to work with Oracle Communications Data Model, take the following steps:

1. In the Design Center of Oracle Warehouse Builder, select **View**, and then **Location Navigator**.
2. Expand **Locations**, then **Process Flow and Schedules**, then **Oracle Workflow**.
3. Right click **OWF\_LOCATION**, select **Open**.
4. Edit the connection information.
5. Click **Test Connection** to test the connection; if successful, click **OK**.

## Creating a Oracle Business Intelligence Suite Enterprise Edition Catalog

The sample reports provided with Oracle Communications Data Model are created using the Oracle Business Intelligence Suite Enterprise Edition. In order to modify these reports or to use them as the basis for creating new reports you must have installed Oracle Business Intelligence Suite Enterprise Edition and have created a Oracle Business Intelligence Suite Enterprise Edition catalog for Oracle Communications Data Model.



### Installing Oracle Business Intelligence Suite Enterprise Edition

If you installed Oracle Communications Data Model sample reports, you installed Oracle Business Intelligence Suite Enterprise Edition as a pre-installation step before you ran the installer. If you installed the Oracle Communications Data Model component rather than the sample reports, then install Oracle Business Intelligence Suite Enterprise Edition at this time by following the instructions given in ["Oracle Business Intelligence Suite Enterprise Edition"](#) on page 1-3.

**Tip:** To check that Oracle Business Intelligence Suite Enterprise Edition is installed, follow the instructions in ["Confirming that Oracle Business Intelligence Suite Enterprise Edition is Installed"](#) on page 3-2.

### Installing a Catalog for Oracle Communications Data Model

Once Oracle Business Intelligence Suite Enterprise Edition is installed, follow these steps to install an Oracle Business Intelligence Suite Enterprise Edition catalog for Oracle Communications Data Model:

**Tip:** In these directions, replace *BIEE\_HOME* with the name of the directory where Oracle Business Intelligence Suite Enterprise Edition is installed, and replace *BIEE\_DATA\_HOME* with the name of the directory where Oracle Business Intelligence Suite Enterprise Edition data is stored.

1. Stop the Oracle Business Intelligence Suite Enterprise Edition Presentation services using the following command:

```
BIEE_HOME/setup/run-saw.sh stop
```

2. Start the Oracle Business Intelligence Suite Enterprise Edition Presentation Services with the following command:

```
OBIEE_HOME/setup/run-saw.sh start
```

3. Add a definition for *ocdm\_db* for the Oracle Communications Data Model repository to use when connecting to the database. Add this definition to the file *\$ORACLE\_HOME/network/admin/tnsnames.ora*:

```
ocdm_db =
(DESCRIPTION =
(AADDRESS = (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 Enterprise Edition repository. See the Oracle Business Intelligence Suite Enterprise Edition documentation for directions for defining a database connection in repository.

---

## Installing Analytic Workspace Manager

Although not required before you install Oracle Communications Data Model, you need to install the Analytic Workspace Manager in order to view and modify Oracle Communications Data Model OLAP cubes. Analytic Workspace Manager 11g 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/technology/products/bi/olap/olap.html>.

Installation instructions are included in the documentation.

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# Backup, Recovery, and Deinstallation of Oracle Communications Data Model

This chapter explains how to deinstall Oracle Communications Data Model:

- [Backing Up and Recovering Oracle Communications Data Model](#)
- [Pre-Deinstallation Tasks](#)
- [Deinstallation Script Execution](#)
- [Post-Deinstallation Tasks](#)

## Backing Up and Recovering Oracle Communications Data Model

Backing up and recovering Oracle Communications Data Model involves a two-step process to 1) backup or recover the relational objects, and 2) backup or recover the analytic workspace that is part of Oracle Communications Data Model. These steps are outlined in the following topics:

- [Exporting Oracle Communications Data Model](#)
- [Importing Oracle Communications Data Model](#)

## Exporting Oracle Communications Data Model

Take the following steps to backup Oracle Communications Data Model:

1. Backup the OCDM\_SYS and OCDM\_MINING schemas by executing the expdp utility.

This utility exports all physical tables containing the data and trained mining models. For more information, see *Oracle Database Utilities*.

2. Backup the analytic workspace that is part of the Oracle Communications Data Model. The analytic workspace is backed up as an EIF file, named OCDM\_BAK.EIF, which is generated under the *ORACLE\_HOME/ocdm/pdm/olap* directory.
  - a. Connect to DB with `ocdm_sys`.
  - b. Issue the following SQL statements.

```
exec dbms_aw.execute('AW ATTACH OCDM');
exec dbms_aw.execute('CDA OCDM_OLAP_DIR');
exec dbms_aw.execute('EXPORT ALL TO EIF FILE ''OCDM_BAK.EIF'' NOTEMPDATA');
exec dbms_aw.execute('AW DETACH OCDM');
```

## Importing Oracle Communications Data Model

Take the following steps to restore Oracle Communications Data Model from the backup files:

1. Restore the `OCDM_SYS` and `OCDM_MINING` schemas by executing the `impdp` utility.

This utility imports all physical tables containing the data and trained mining models. For more information, see *Oracle Database Utilities*.

2. Connect to DB with `ocdm_sys`, and import the analytic workspace that was saved as an EIF file, named `OCDM_BAK.EIF`, under the `ORACLE_HOME/ocdm/pdm/olap` directory.

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

## Overview: Deinstalling Oracle Communications Data Model

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

1. Backup Oracle Communications Data Model, as described in "[Exporting Oracle Communications Data Model](#)" on page 5-1.
2. Stop an sessions that use the Oracle Communications Data Model schemas, as described in "[Pre-Deinstallation Tasks](#)" on page 5-2.
3. Execute the deinstallation script, as described in "[Deinstallation Script Execution](#)" on page 5-3.
4. If you are deinstalling the sample reports, perform the tasks described in "[Post-Deinstallation Tasks](#)" on page 5-3.

## Pre-Deinstallation Tasks

The deinstallation script removes the `ocdm_sys` and `ocdm_mining` schemas. Consequently, before you run the deinstallation script, ensure that there are no active sessions that connect to either the `ocdm_sys` schema or the `ocdm_mining` schema.

### Identifying if the `ocdm_sys` or `ocdm_mining` schemas are active

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

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

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

If either of these queries returns a session ID, then there is an active session.

### Ending and active `ocdm_sys` or `ocdm_mining` 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' ;
```

## Deinstallation Script Execution

To execute the Oracle Communications Data Model deinstallation script:

1. Execute

```
$ORACLE_HOME/ocdm/ocdm_deinstall.sh
```

2. When prompted, enter the SYSTEM password.

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

If you are deinstalling the sample reports, once the deinstallation script has executed, perform the tasks described in ["Post-Deinstallation Tasks"](#) on page 5-3.

## Post-Deinstallation Tasks

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

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

```
Star = ocdm.rpd, DEFAULT
```



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# Index

## A

---

### AIX

- installing Oracle Communications Data Model on, 3-3
  - supported platforms for Oracle Communications Data Model, 1-1
- Analytic Workspace Manager, installing, 4-4

## B

---

- backup Oracle Communications Data Model, 5-1

## D

---

- deinstalling Oracle Communications Data Model, 5-2

## E

---

- exporting Oracle Communications Data Model, 5-1

## H

---

- HP\_UX Itanium, supported platforms for Oracle Communications Data Model, 1-2

## I

---

- importing Oracle Communications Data Model, 5-2
- installing
- Analytic Workspace Manager, 4-4
  - Oracle Communications Data Model, 2-3, 3-1, 3-3, 3-5, 3-7
  - other components used by Oracle Communications Data Model, 4-1
  - sample reports for Oracle Communications Data Model, 2-2
  - workflow for Oracle Communications Data Model, 4-1

## L

---

- Linux, supported platforms for Oracle Communications Data Model, 1-1

## O

---

- OCDM\_MINING account, unlocking, 3-7
- OCDM\_MINING, assigning grants to, 3-7
- OCDM\_SAMPLE\_SYS account, unlocking, 3-7
- OCDM\_SYS account, unlocking, 3-7
- Oracle Business Intelligence Suite Enterprise Edition catalog for Oracle Communications Data Model, 4-2
- confirming installation of, 3-2
  - downloading, 1-3
- Oracle Communications Data Model
- backup, 5-1
  - deinstalling, 5-2
  - export, 5-1
  - home directory structure, 2-2
  - import, 5-2
  - installation process, 2-3
  - installer execution, 3-3
  - post-installation tasks, 3-7
  - preinstallation tasks, 3-1
  - recovery, 5-2
  - silent installation, 3-5
  - types of installations, 2-1
- Oracle Communications Data Model installation
- hardware requirements, 1-2
  - Oracle Database requirements, 1-2
  - software requirements, 1-2
  - supported platforms, 1-1
- Oracle Data Mining option, confirming installation of, 3-2
- Oracle OLAP option, confirming installation of, 3-2
- Oracle Warehouse Builder workflow
- configuring for Oracle Communications Data Model, 4-1
  - installing for Oracle Communications Data Model, 4-1
- OWBSYS schema, confirming existence of, 3-2

## P

---

- platforms for Oracle Communications Data Model, 1-1
- post-installation tasks, Oracle Communications Data Model, 3-7
- pre-installation tasks, Oracle Communications Data

Model, 3-1

## **R**

---

requirements for installation

hardware, 1-2

software, 1-2

## **S**

---

sample reports for Oracle Communications Data

Model, installing, 2-2

Solaris, supported platforms for Oracle

Communications Data Model, 1-1

## **U**

---

unlocking

OCDM\_MINING account, 3-7

OCDM\_SAMPLE\_SYS account, 3-7

OCDM\_SYS account, 3-7