

Oracle® Retail Data Model

Installation Guide

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Preface

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

Audience

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

Installation of Oracle Retail Data Model requires basic knowledge of Oracle Database, Oracle OLAP, Oracle Data Mining, and Oracle Business Intelligence Suite Enterprise Edition (BI EE).

Documentation Accessibility

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Access to Oracle Support

Oracle customers 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 Retail Data Model see the following documents in the Oracle Retail Data Model documentation set:

- *Oracle Retail Data Model Reference*
- *Oracle Retail Data Model Release Notes*
- *Oracle Retail Data Model Operations Guide*

For information about installing and administering the software prerequisites for Oracle Retail Data Model, see the following:

- For information about installing Database Enterprise Edition for your operating system, see the appropriate installation guide in the documentation library for your Oracle Database: *Oracle Database Documentation Library 11g Release 2* at

<http://www.oracle.com/technetwork/database/enterprise-edition/documentation/index.html>

The documentation library also contains information about Oracle Online Analytic Processing (OLAP) and Oracle Data Mining.

- For information about Oracle Business Intelligence Suite Enterprise Edition (BI EE), see Oracle Business Intelligence Enterprise Edition Documentation at <http://www.oracle.com/technetwork/middleware/bi-enterprise-edition/documentation/index.html>

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	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.

Hardware and Software Requirements

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

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

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

Supported Platforms

Oracle Retail Data Model is supported on the following platforms:

- Linux x86-64
 - Asianux Server 3 SP2 and higher
 - Oracle Linux 5 Update 2 and higher:
 - * Red Hat compatible Kernel
 - * Update 5 or higher - Oracle Unbreakable Enterprise Kernel (UEK R1) 2.6.32-100.28.5.el6.x86_64 or higher
 - * Update 8 and higher - Oracle Unbreakable Enterprise Kernel (UEK R2) 2.6.39-100.5.1 or higher
 - Oracle Linux 6
 - * Red Hat compatible Kernel
 - * Oracle Unbreakable Enterprise Kernel (UEK R1) 2.6.32-100.28.5.el6.x86_64 or higher
 - * Update 2 or higher - Oracle Unbreakable Enterprise Kernel (UEK R2) 2.6.39-100.5.1 or higher
 - Red Hat Enterprise 5 Update 2 and higher
 - * Update 5 or higher - Oracle Unbreakable Enterprise Kernel (UEK R1) 2.6.32-100.28.5.el6.x86_64 or higher
 - Red Hat Enterprise Linux 6
 - * Red Hat kernel 2.6.32-71.el6.x86_64 or later

- * Oracle Unbreakable Enterprise Kernel (UEK R1) 2.6.32-100.28.5.el6.x86_64 or later
- SUSE Linux Enterprise Server 10 SP2 and higher
- SUSE Linux Enterprise Server 11
- Oracle Solaris on SPARC (64-bit)
 - Oracle Solaris 10 U6 (5.10-2008.10)
 - Oracle Solaris 11 11/11 SPARC
- Oracle Solaris on x86-64 (64-bit)
 - Oracle Solaris 10 U6 (5.10-2008.10)
 - Oracle Solaris 11 11/11 X86
- HP-UX Itanium
 - HP-UX 11i V3 patch Bundle Sep/ 2008 (B.11.31.0809.326a) or higher
- AIX 5L Based Systems (64-bit)
 - AIX 6.1 TL 02 SP1 ("6100-02-01"), 64-bit kernel
 - AIX 7.1 TL 0 SP1 ("7100-00-01-1037"), 64-bit kernel

Note: There are special considerations when installing Oracle Retail Data Model on AIX, see "[AIX Platform Requirements: Database and Configuration Parameters](#)" on page 1-4. For more information, see *Oracle Database Installation Guide for IBM AIX on POWER Systems (64-Bit)*.

For more information about Oracle Linux, see [Oracle Linux Notes](#) on page 1-2.

Oracle Linux Notes

For information about the Oracle Linux, go to <http://www.oracle.com/us/technologies/linux/index.html>. To download Linux, under Downloads, click **Oracle Linux**; this takes you to the Oracle Linux download site, <https://edelivery.oracle.com/linux>. Oracle Linux is a free download.

Hardware Requirements

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

The minimum hardware requirement for Oracle Retail Data Model installation is:

- Disk space of at least 10 GB.

The minimum hardware requirement for Oracle Retail Data Model Sample Reports installation is:

- Disk space of at least 25 GB.

Software Requirements

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

- Operating System: For details of supported platforms, see "[Supported Platforms](#)" on page 1-1".
- Oracle Database 11g Release 2 (11.2.0.3) Enterprise Edition, including the options specified in "[Oracle Database Requirements](#)" on page 1-3.
- Oracle Business Intelligence Suite Enterprise Edition 11.1.1.6 or higher. See "[Oracle Business Intelligence Suite Enterprise Edition](#)" on page 1-3 (this is Optional for Oracle Retail Data Model and Sample Reports installation steps but is required to deploy the Oracle Retail Data Model sample reports RPD and webcat and to view the sample reports on the Business Intelligence Suite Enterprise Edition 11g instance).

Note: The recommended patches and software versions are accurate as of product release. For the latest recommendations for database supported platforms, see <https://support.oracle.com/>.

Oracle Database Requirements

Oracle Retail Data Model requires Oracle Database 11g Release 2 Enterprise Edition (11.2.0.3 or later).

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

- Oracle Partitioning
- Oracle Online Analytical Processing (OLAP)
- Oracle Data Mining
- When you install the Database ensure that the database character set is Unicode (AL32UTF8) to support multi-language installations due to the Oracle Retail Data Model permitting installation with support for English and several other languages.

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 at the following location:

<https://support.oracle.com>

Oracle Business Intelligence Suite Enterprise Edition

You must have the Oracle Business Intelligence Suite Enterprise Edition installed before you view the Oracle Retail Data Model sample reports (this is Optional for Oracle Retail Data Model and Sample Reports installation steps but is required to deploy the Oracle Retail Data Model sample reports RPD and webcat and to view the sample reports on the Business Intelligence Suite Enterprise Edition 11g instance).

Oracle Business Intelligence Suite Enterprise Edition 11.1.1.6 or higher can be downloaded from the "Oracle Business Intelligence 11g 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.

Platform Specific Requirements

Oracle Retail Data Model has the following platform specific requirements:

- [AIX Platform Requirements: Database and Configuration Parameters](#)

AIX Platform Requirements: Database and Configuration Parameters

On the AIX platform, there are additional database configuration requirements. On AIX platform, use the `ulimit` command to determine process memory related resource limits. Verify that the shell limits are set to the appropriate values and verify that the kernel parameters are set to values greater than or equal to the minimum values as specified in the *Oracle Database Installation Guide for IBM AIX on POWER Systems (64-Bit)*.

You need to modify certain `ulimit` settings that determine process memory related resource limits, including the following settings:

- Soft DATA segment: set to -1 (Unlimited)
- Soft Real Memory size: set to -1 (Unlimited)

Note: For details review the section, "Configure Shell Limits and System Configuration Parameters" in Chapter 2, "Oracle Database Preinstallation Requirements", in *Oracle Database Installation Guide for IBM AIX on POWER Systems (64-Bit)*.

Introduction to Oracle Retail Data Model Installation

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

- [Types of Installations Provided for Oracle Retail Data Model](#)
- [Oracle Retail Data Model Home Directory Structure](#)
- [Overview of the Installation Process](#)

To deinstall Oracle Retail Data Model, see [Chapter 5, "Backup, Recovery, and Deinstallation of Oracle Retail Data Model"](#).

After you install Oracle Retail Data Model you can customize the data model; for instructions, see the *Oracle Retail Data Model Operations Guide*. The *Oracle Retail Data Model Operations Guide* describes other tasks that you can perform, including creating (building) mining models.

Types of Installations Provided for Oracle Retail Data Model

Using Oracle Universal Installer you can perform two types of Oracle Retail Data Model installations:

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

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

Retail Data Model Installation

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

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

See: For detailed information about all created objects in the `ordm_sys` schema, see the *Oracle Retail Data Model Reference*.

When you install Oracle Retail Data Model, there is no transactional data in the schema. The installation populates certain core tables such as lookup tables and reference entities. You need to populate fact, transactional data into the schema.

Sample Reports Installation

When you perform a **Sample Reports** installation of the Oracle Retail Data Model, Installer creates the Oracle Retail Data Model sample schema in the target database. Specifically, the Installer installs:

- The following file that provides the data for the sample reports:
 - `ordm_sample.dmp.zip` which is a dump file of the schemas that contain the sample data for the relational, OLAP, and data mining components of Oracle Retail Data Model.
- Tip:** The default user name for the schema is `ordm_sample`. The default password is: `password`. Contact Oracle support to obtain the Oracle Retail Data Model sample schema password.
- The following files that define and create the sample reports:
 - `ordm.rpd`
 - `ordmwebcat.zip`

Oracle Retail Data Model includes sample schemas and reports that you may find useful when you develop your own schemas and reports. The sample schemas include the schema with data that enables you to run the sample reports. When you install the sample schemas and reports, you must perform an additional postinstallation task. For more details see "[Installing RPD and WebCat for OBIEE](#)" on page 3-17.

Note: When you deploy the `rpd` you need to provide an `rpd` password. Contact Oracle support to obtain the Oracle Retail Data Model `rpd` password.

Oracle Retail Data Model Home Directory Structure

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

- `report` which contains the sample report files required for the Oracle Retail Data Model installation.
- `pdm` which contains the physical schema dump, creation script, and lookup value population as listed in [Table 2-1](#).

Table 2-1 Oracle Retail Data Model Home Directory Structure

Subdirectory	Description
<code>interface</code>	
<code>mining/src</code>	Data mining scripts and related files
<code>olap</code>	OLAP scripts and related files
<code>relational</code>	Relational schema installation scripts and relational related files

Table 2–1 (Cont.) Oracle Retail Data Model Home Directory Structure

Subdirectory	Description
relational/intra_etl	Intra-ETL Oracle Warehouse Builder dump and related files
relational/sample_schema	Sample schema and sample related files
relational/sql_scripts	Relational schema installation scripts
relational/sql_scripts/intra_etl	Intra-ETL load packages including OLAP Intra-ETL load package
utilities	Metadata generation and update related files and other utilities

Overview of the Installation Process

Installation of the Oracle Retail Data Model requires the following tasks:

1. Read *Oracle Retail Data Model Release Notes* to identify any last minute changes.
2. Verify that your system is a supported platform 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 Retail Data Model component or the Oracle Retail Data Model sample reports, as described in ["Installer Execution"](#) on page 3-5".

Tip: You can also perform a silent installation, see ["Silent Installation"](#) on page 3-9 for more information.

5. Identify and perform any necessary postinstallation tasks, as described in ["Post-Installation Tasks"](#) on page 3-10.
6. Install the additional components that you need to create an Oracle Retail Data Model data warehouse or to use the sample reports, as described in [Chapter 4, "Installation of Additional Components"](#).

Note 1: To uninstall Oracle Retail Data Model, follow the instructions in [Chapter 5, "Backup, Recovery, and Deinstallation of Oracle Retail Data Model"](#). You *must* uninstall Oracle Retail Data Model before you re-install it.

Note 2: You *must* uninstall Oracle Retail Data Model before you re-install it over an existing version of Oracle Retail Data Model.

Installation of Oracle Retail Data Model

The installation described in this chapter creates all of the database objects of Oracle Retail Data Model and also for the data mining models. For detailed information about all created objects in the `ordm_sys` and `ordm_samples` schemas, see the *Oracle Retail Data Model Reference*.

This chapter describes how to install Oracle Retail Data Model:

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

Pre-installation Tasks

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

- Back up the Oracle Database.
- Ensure that the software required for Oracle Retail Data Model is installed, as described in ["Ensuring that Required Software is Installed"](#) on page 3-2.
- Ensure that all required software patches for Oracle Retail Data Model are installed, as described in ["Ensuring that Required Software Patches are Installed"](#) on page 3-2.
- Set the maximum processes initialization parameter, as described in ["Changing the Default Value for the Maximum Processes Initialization Parameter"](#) on page 3-3.
- Increase the maximum number of data files, as described in ["Changing the Maximum Data Files Option"](#) on page 3-3.
- If you are using the Database Vault Option, disable the option, as described in ["Disabling the Data Vault Option on the Database"](#) on page 3-4.
- Ensure that the `tnsnames.ora` file includes a value for `SERVICE_NAME`, as described in ["Ensuring That a Value is Set for the Service Name"](#) on page 3-5.
- If you are installing Oracle Retail Data Model on an AIX platform listed in ["Supported Platforms"](#) on page 1-1, change Oracle Database parameters and system limits as described in ["AIX Platform Requirements: Database and Configuration Parameters"](#) on page 1-4.

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 Retail Data Model component or the Oracle Retail 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 Retail 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.
- Before you install the sample data and reports for Oracle Retail 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 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.

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 7001 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:7001/analytics
```

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

Typically the password is set to a default value *password* for weblogic user while installing OBIEE. To login, typically use the user name weblogic, and either the default password or the password you assigned *password* for password.

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

Note: You can install the Sample Reports without Oracle Business Intelligence Suite Enterprise Edition installed, but you must have the Oracle Business Intelligence Suite Enterprise Edition installed before you can view the Sample Reports.

Ensuring that Required Software Patches are Installed

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

Take the following steps to ensure the required software patches are installed:

- [Install OLAP C PATCH FOR 11.2.0.3.0](#)

Install OLAP C PATCH FOR 11.2.0.3.0

Obtain the appropriate OLAP C Patch for your platform and install the OLAP C patch for Oracle Database 11.2.0.3.0.

Do the following to obtain and install this patch:

1. To obtain the appropriate patch for your platform, go to My Oracle Support at <https://support.oracle.com>
2. Go to Patches & Updates tab, Search for Patch Number 15928745 and select Enter. Choose the patch 15928745 with Description "OLAP C PATCH FOR 11.2.0.3.0 (Patch)" and also choose the Platform from available choices and download the patch.
3. Unzip the patch and follow the installation in the readme file to install the patch.

Changing the Default Value for the Maximum Processes Initialization Parameter

Oracle Retail 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
```

Changing the Maximum Data Files Option

Oracle Retail 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:

```
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
```

Disabling the Data Vault Option on the Database

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

To find out if the Oracle Database is Vault-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
```

5. Disable the Oracle Database Vault option 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. 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 database instance as follows:

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

After you install Oracle Retail Data Model, you re-enable the Vault, as described in ["Re-Enabling the Vault Option on the Database"](#) on page 3-15.

Ensuring That a Value is Set for the Service Name

Ensure that in tnsname.ora, the service name is provided. To do this, 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:

```
orcl11g =
(DESCRIPTION =
(AADDRESS = (PROTOCOL = TCP)(HOST = server1.us.oracle.com)(PORT = 1521))
(CONNECT_DATA =
(SERVER = DEDICATED)
(SERVICE_NAME = orcl)
)
)
```

Installer Execution

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

Note: You must install Oracle Retail 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 Retail 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 Retail 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 Retail Data Model.

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

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

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

In a C shell, use this command to set ORACLE_HOME

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

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

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

You can safely ignore messages such as the following (these messages are shown if you previously ran Oracle Universal Installer):

```
mkdir: cannot create directory
`ORACLE_HOME/oui/stage': File exists
mkdir: cannot create directory
`ORACLE_HOME/oui/stage/sizes': File exists
mkdir: cannot create directory
`ORACLE_HOME/oui/stage/globalvariables': File exists
```

4. In the **Select Install Type** page, select the type of Oracle Retail Data Model installation that you want to perform:
 - If you want to install the Oracle Retail Data Model component, select **Retail Data Model**. Making this selection performs the installation described in "[Retail Data Model Installation](#)" on page 2-1.
 - If you want to install the Oracle Retail 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 Retail 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**.

5. In the **Specify Install Location** page, verify that the **Software Location** corresponds to the Database in which you want to install Oracle Retail Data Model. You can click **Browse** to navigate to any valid local data file path.

Click **Next**.

6. In the **Perform 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 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 **Database 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 Retail 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 Retail Data Model will be installed.

Click **Next**.

8. The **Specify Schema Information** page shows when you select to install the component, **Retail Data Model**. In this dialog specify where all of the data files that correspond to the Oracle Retail 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, 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 Retail 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 Retail Data Model data files.

Click **Next**.

9. The **Sample Schema Information** page shows when you select to install the **Sample Reports**. In this dialog you specify where all of the data files that correspond to the Oracle Retail Data Model sample schemas 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, 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 Retail 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 Retail 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.

10. In the **Calendar Information** page, specify the calendar date range by providing values for **Start Date**, **Number of Years**, and select the **Week Start Day**. The installer uses this information to populate the calendar data. A recommended **Number of Years** value is 20. Specifying larger **Number of Years** values

proportionally increases the time it takes to implement the partitioning portion of Oracle Retail Data Model install activity. The start year specified with **Start Date** should be the lowest possible dates from your historical data load. There is a way to extend the time dimension incrementally but this change involves an elaborate process. Hence it is recommended that you chose an initial value for the parameter: **Number of Years** that covers your analysis needs for a reasonably long time. For more information on extending the time dimension incrementally, see *Oracle Retail Data Model Reference*.

Start Date must be in the format YYYY-MM-DD; for example, 2012-01-20 stands for January 20, 2012. **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**.

11. In the **Partition Information** page, specify the **Interval Partition Start Date**. The **Interval Partition Start Date** must be in the format YYYY-MM-DD; for example, 2012-01-20 stands for January 20, 2012. The interval partitions are the first level partitions. The interval partition start date is used to create initial interval partitions on base tables, reference tables, and aggregate materialized views.

Specify the **Number of Hash Partitions for Business Unit Key** and the **Number of Hash Partitions for SKU Item Key**. Specify a value for each field. If you enter an invalid value the installer shows a dialog displaying valid values. The hash partitions are the second level partitions. For each hash partition value you specify, it is recommended to choose a value that is a power of 2 to obtain the most even distribution of rows (for example, enter a value: 4, 8, 16, 32, or 64 and so on).

Click **Next**.

12. On the **Summary** page, 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**.

Note: During installation, you should expect the Oracle Retail Data Model configuration step to take a long time (this step should take less than one hour).

13. The Oracle Retail 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 **Close** to end the installer.

After you exit the installer, perform any necessary postinstallation tasks described in "[Post-Installation Tasks](#)" on page 3-10. Then install the other components that you need to create an Oracle Retail 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 (`rdm.rsp`) is located in the `/response` directory in the directory that contains the Oracle Retail 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 Retail 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
```

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", "String Value 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 Retail 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
```

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.

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 Retail 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 Tasks

Once you have executed the Installer take the following steps to perform postinstallation steps, cleanup, and configuration:

1. After you install Oracle Retail Data Model, obtain the IP Patch. The IP Patch includes additional documentation. To obtain the IP Patch and for the latest information about Oracle Retail Data Model patch sets, go to My Oracle Support at <https://support.oracle.com>.
2. Unlock the `ORDM_SYS` account, as described in "[Unlocking the ORDM_SYS Account](#)" on page 3-11.
3. If you installed the Oracle Retail Data Model sample reports, unlock the `ORDM_SAMPLE` account, as described in "[Unlocking the ORDM_SAMPLE Account](#)" on page 3-11.
4. If you installed the Oracle Retail Data Model sample reports, then recompile the OLAP Views, as described in "[Recompiling OLAP Views](#)" on page 3-11.
5. If you installed the Oracle Retail Data Model sample reports and you do not want users to make changes to the schemas, grant only select privileges to those users as described in "[Limiting User Privileges for Sample Reports](#)" on page 3-12.
6. If you installed the Oracle Retail Data Model Sample Reports, run the OLAP Analytical Workspace builds on `ORDM Analytical Workspace` in `ordm_sample` schema, as described in "[Running OLAP Builds to Load Data into Analytical Workspace](#)" on page 3-12".

7. If you want to use the Database Vault Option and disabled it before installation re-enable the options, as described in ["Re-Enabling the Vault Option on the Database"](#) on page 3-15.
8. Ensure that the Oracle Retail Data Model objects are valid, as described in ["Ensuring That Oracle Retail Data Model Objects Are Valid"](#) on page 3-16.
9. If necessary, change the values specified for PGA_AGGREGATE_TARGET and WORKAREA_SIZE_POLICY, as described in ["Ensuring That PGA_AGGREGATE_TARGET is Set to the Proper Value"](#) on page 3-16.
10. If you installed the Oracle Retail Data Model sample reports, once Oracle Business Intelligence Suite Enterprise Edition is installed, install an Oracle Business Intelligence Suite Enterprise Edition catalog, as described in ["Installing OBIEE Suite Catalog for Oracle Retail Data Model"](#) on page 3-16.
11. If you installed the Oracle Retail Data Model sample reports, install the BIEE 11g rpd and WebCat, as described in ["Installing RPD and WebCat for OBIEE"](#) on page 3-17.
12. Review the Multi-Currency information to ensure that relevant conversion factors for Multi-Currency functionality are configured for your implementation, as described in *Oracle Retail Data Model Operations Guide*.

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

Unlocking the ORDM_SYS Account

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

1. Log in the Database with a DBA id and password.

Note: The password is case sensitive.

2. Unlock the accounts by issuing the following SQL statements.

```
alter user ordm_sys account unlock;
```

Unlocking the ORDM_SAMPLE Account

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

1. Log in the Database with a DBA id and password.

Note: The password is case sensitive.

2. Unlock the account by issuing the following SQL statement.

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

Recompiling OLAP Views

After you unlock the ordm_sample account, login with this account and execute the following file in the sample schema:

```
$ORACLE_HOME/ordm/pdm/olap/ordm_olap_11_2_cubeview_extnd.sql
```

Limiting User Privileges for Sample Reports

By default, when you perform a Sample Reports Oracle Retail Data Model installation, the sample reports connect to `ORDM_SYS` schema directly. For security, you may want to grant only select privileges to users who will be working with these reports. To grant only select privileges, take the following steps:

1. Create a dedicated reporting user (for example, `ORDM_Report`).
2. Grant select privilege for all Oracle Retail Data Model tables required for reporting to the user you created in Step 1. The easy way is to grant the select privilege for all Oracle Retail Data Model tables, which start with one of the following prefixes: `DWA`, `DWB`, `DWD`, `DWR`, `DWL`. Also grant select privilege to `ORDM_Report` on all the `ORDM_SYS` views. Typically these views are either relational views starting with `DWV` or `OLAP` views ending with `_VIEW`.
3. Create synonyms in `ORDM_Report` schema pointing to relevant `ORDM_SYS` objects.
4. In the Oracle Business Intelligence Suite Enterprise Edition repository, change the connection information to point to the new schema `ORDM_Report`.

Running OLAP Builds to Load Data into Analytical Workspace

The Oracle Retail Data Model Sample Reports installation loads an empty Analytical Workspace named `ORDM` into the sample schema `ordm_sample`. You must load the sample schema data into the empty OLAP Analytical Workspace before you can run the reports or view data in the Sample Reports.

Note: the Non-OLAP sample reports such as the data mining related sample reports and relational sample reports work without performing the OLAP Analytic Workspace steps.

Perform the following steps to load data into the Oracle Retail Data Model OLAP Analytical Workspace (depending on your hardware and configuration, the total expected time to complete these steps may be up to two hours):

1. Go to the following directory containing the OLAP source files including the OLAP load scripts:

```
cd $ORACLE_HOME/ordm/pdm/olap
```
2. Review the scripts `ordm_cube_historical_load.sql` and `ordm_cube_incremental_load.sql`. These scripts contain comments and hints in the which you can use to guide the OLAP load process. For sample schema OLAP loads, you do not need to make any changes to these scripts.
3. Login to `ordm_sample` schema through `SQL*Plus` or `SQL Developer` and verify the entries in the table `DWC_OLAP_ETL_PARAMETER`. The entries in the table suitable for `HISTORICAL` load are:

```
process_name='ORDM-OLAP-ETL'  
build_method='C'  
cubename='ALL'  
maxjobqueues=4  
calc_fcst='Y'  
no_fcst_yrs=2  
fcst_mthd='AUTO'  
hist_st_mo='BY 2010 M1'
```

```
fcst_st_mo='BY 2012 M1'
other1=NULL
other2=NULL
build_method_type='HISTORICAL'
```

For more information on the entries in the `DWC_OLAP_ETL_PARAMETER` table, see *Oracle Retail Data Model Reference*.

4. Run the script `ordm_cube_historical_load.sql` from SQL *Plus to execute the HISTORICAL load.

```
SQL> Prompt Running the HISTORICAL load
SQL> @ordm_cube_historical_load.sql
```

5. After the load completes, review the contents of the file `ordm_olap_hist_load.log` created in directory where you ran the script shown in step 4. This load typically completes in 40-50 minutes (usually in less than one hour). The typical output from a successful HISTORICAL load run is as follows:

```
--Typical Output of the full load. :--
Running the Historical load with build method 'C':- PROMPT
Historical load attempts to load Non-Forecast and Forecast cubes ...

21-JUL-12 02.17.48.905132000 PM -07:00
14:17:49 : Loading Non-Forecast Cube:ALL in mode:C
14:17:50 : Building Non-Forecast Cube:ORDM_SAMPLE.AR,ORDM_SAMPLE.ASSET,ORDM_
SAMPLE.CC,ORDM_SAMPLE.CO,ORDM_SAMPLE.CRFMP,ORDM_SAMPLE.CRFMPDC,ORDM_
SAMPLE.CSSR,ORDM_SAMPLE.EL,ORDM_SAMPLE.EWGP,ORDM_SAMPLE.IA,ORDM_
SAMPLE.INV,ORDM_SAMPLE.IR,ORDM_SAMPLE.IU,ORDM_SAMPLE.LIABILITY,ORDM_
SAMPLE.OBUH,ORDM_SAMPLE.OBUT,ORDM_SAMPLE.POLIS,ORDM_SAMPLE.POS,ORDM_
SAMPLE.RTEW,ORDM_SAMPLE.SLS,ORDM_SAMPLE.SLSQR,ORDM_SAMPLE.SU,ORDM_SAMPLE.VC in
method:CCCCCCCCCCCCCCCCCCCC
15:00:28 : Clear Dimensions - Done
15:00:28 : Running Forecast programs and Building Forecast Cubes: SLS_FCST,
INV_FCST
15:00:28 : Building All Forecast Cubes in method:AUTO
15:00:28 : Building Sales Forecast Cubes using program:SLS_FCST_PROGRAM ''BY
2010 M1'' ''BY 2012 M1'' 2
15:00:28 : Building Inventory Forecast Cubes using program:INV_FCST_PROGRAM
''BY 2010 M1'' ''BY 2012 M1'' 2
15:04:22 : output=0
21-JUL-12 03.04.22.081362000 PM -07:00
15:04:23 : Historical load has been completed successfully. All future loads
can be run in incremental mode. Incremental loads are typically run on a daily
schedule.
15:04:23 : However the Forecast loads can be done on a monthly schedule using
following values - Historical Start Month: BY 2010 M2, Forecast Start Month: BY
2012 M2
15:04:23 : To run the load in incremental mode in future, please run or
appropriately schedule the script: ordm_cube_incremental_load.sql

PL/SQL procedure successfully completed.

Elapsed: 00:46:35.59
```

Note: The return value from the package shown in this output at time=15:04:22 is zero. The zero return value, output=0, indicates a successful execution (from a functional standpoint).

6. On successful execution, the HISTORICAL load sets up the data in `DWC_OLAP_ETL_PARAMETER` such that all subsequent loads can be performed in INCREMENTAL mode.
7. Verify the entries in the `DWC_OLAP_ETL_PARAMETER` table. The entries in the table suitable for INCREMENTAL load are:

```
process_name='ORDM-OLAP-ETL'
build_method='?'
cubename='ALL'
maxjobqueues=4
calc_fcst='Y'
no_fcst_yrs=2
fcst_mthd='AUTO'
hist_st_mo='BY 2010 M2'
fcst_st_mo='BY 2012 M2'
other1=NULL
other2=NULL
build_method_type='INCREMENTAL'
```

For more information on the entries in the `DWC_OLAP_ETL_PARAMETER` table, see *Oracle Retail Data Model Reference*.

8. Run the script `ordm_cube_incremental_load.sql` from SQL *Plus to execute the INCREMENTAL Load:

```
SQL> Prompt Running the INCREMENTAL load
SQL> @ordm_cube_incremental_load.sql
```

9. After the load is completes, review the contents of the file `ordm_olap_incr_load.log` created in same directory. This load typically completes in 20 minutes (usually completes in less that one hour). The typical output from a successful INCREMENTAL load run is as follows:

```
--Typical Output of the incremental load. :--
Running the Incremental load with build method '?' :- PROMPT
Incremental load attempts to load Non-Forecast and Forecast cubes and bring
them up to date ...

21-JUL-12 03.12.22.367283000 PM -07:00
15:12:22 : Loading Non-Forecast Cube:ALL in mode:?
15:12:22 : Building Non-Forecast Cube:ORDM_SAMPLE.AR,ORDM_SAMPLE.ASSET,ORDM_
SAMPLE.CC,ORDM_SAMPLE.CO,ORDM_SAMPLE.CRFMP,ORDM_SAMPLE.CRFMPDC,ORDM_
SAMPLE.CSSR,ORDM_SAMPLE.EL,ORDM_SAMPLE.EWGP,ORDM_SAMPLE.IA,ORDM_
SAMPLE.INV,ORDM_SAMPLE.IR,ORDM_SAMPLE.IU,ORDM_SAMPLE.LIABILITY,ORDM_
SAMPLE.OBUH,ORDM_SAMPLE.OBUT,ORDM_SAMPLE.POLIS,ORDM_SAMPLE.POS,ORDM_
SAMPLE.RTEW,ORDM_SAMPLE.SLS,ORDM_SAMPLE.SLSQR,ORDM_SAMPLE.SU,ORDM_SAMPLE.VC in
method:????????????????????????????
15:31:07 : Clear Dimensions - Done
15:31:07 : Running Forecast programs and Building Forecast Cubes: SLS_FCST,
INV_FCST
15:31:07 : Building All Forecast Cubes in method:AUTO
15:31:07 : Building Sales Forecast Cubes using program:SLS_FCST_PROGRAM ''BY
2010 M2'' ''BY 2012 M2'' 2
15:31:07 : Building Inventory Forecast Cubes using program:INV_FCST_PROGRAM
''BY 2010 M2'' ''BY 2012 M2'' 2
15:36:18 : output=0
21-JUL-12 03.36.18.424586000 PM -07:00

PL/SQL procedure successfully completed.
```

Elapsed: 00:23:56.13

Note: The return value from the package shown in this output at time=15:36:18 is zero. This zero return value, output=0, indicates successful execution (from a functional standpoint).

10. The Oracle Retail Data Model OLAP Analytical Workspace is now successfully loaded with the data in the underlying schema.

Re-Enabling the Vault Option on the Database

If you are using the Database Vault Option and disabled it before installation as described in "[Disabling the Data Vault Option on the Database](#)" on page 3-4, re-enable the Vault option 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
```

2. Enable the Oracle Database Vault option.

```
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 database. 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 database 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.

Ensuring That Oracle Retail Data Model Objects Are Valid

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

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

Ensuring That PGA_AGGREGATE_TARGET is Set to the Proper Value

For good performance, you need to ensure that the PGA_AGGREGATE_TARGET is set to the proper value which depends on the physical RAM of your Database Server. You also need to ensure that the WORKAREA_SIZE_POLICY parameter is set to AUTO.

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

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

Installing OBIEE Suite Catalog for Oracle Retail 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 Retail 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. Add a definition for `ordm_db` for the Oracle Retail Data Model repository to use when connecting to the database. Add this definition to the file `$ORACLE_HOME/network/admin/tnsnames.ora`:

```
ordm_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 RPD and WebCat for OBIEE

If you installed the Oracle Retail Data Model Oracle sample reports, you need to deploy the Oracle Retail Data Model RPD and webcat on the Business Intelligence Suite Enterprise Edition 11g instance. For more information on deploying RPD and webcat in OBIEE, see the *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

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/ordm/report`, in the following files:

`ordm.rpd`

`ordmwebcat.zip`

Before you deploy the webcat, you need to unzip `ordmwebcat.zip`.

Perform the following steps to deploy the Oracle Retail 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 Retail Data Model rpd password in IP patch. For information on obtaining the IP Patch, see the *Oracle Retail Data Model Release Notes*.

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

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

Go to enterprise console and configure the security realm for the installation and create users, groups, application roles and olap data security filters as described in [Appendix A, "Configuration Steps for OBIEE 11g"](#).

3. Following the instructions to "Refresh the User GUIDs" to update the GUIDs. For more information, see *Oracle Fusion Middleware Security Guide for Oracle Business Intelligence Enterprise Edition*.

Installation of Additional Components

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

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

Installing and Configuring Workflow

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

- Without using Oracle Warehouse Builder Workflow (instead you can manually run Intra-ETL manually using the PL/SQL package `pkg_intra_etl_process`). Thus, if you do not use Oracle Warehouse Builder Workflow, you can use this method to perform the Intra-ETL tasks.

In this case, you do *not* need to install and configure Oracle Workflow. For more information on PL/SQL package `pkg_intra_etl_process`, see *Oracle Retail Data Model Operations Guide*.

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

In this case, using Oracle Warehouse Builder Workflow, before you can execute intra-ETL you must perform the following tasks:

1. Install Oracle Warehouse Builder Workflow, as described in "[Installing Oracle Warehouse Builder and Integrating with Oracle Workflow](#)" on page 4-2.
2. Install Oracle Warehouse Builder OWBSYS schema, as described in "[Installing Oracle Warehouse Builder OWBSYS Schema](#)" on page 4-2.
3. Create Oracle Warehouse Builder workspace with a new user as workspace owner, as described in "[Creating Oracle Warehouse Builder Workspace for Oracle Retail Data Model](#)" on page 4-4.
4. Import the Oracle Retail Data Model intra-ETL into Workflow, as described in "[Importing Oracle Retail Data Model Intra-ETL into Workflow](#)" on page 4-4.

5. Configure Oracle Warehouse Builder Workflow to work with Oracle Retail Data Model, as described in "[Configuring Oracle Warehouse Builder Workflow](#)" on page 4-4.

Installing Oracle Warehouse Builder and Integrating with Oracle Workflow

If you are installing Oracle Warehouse Builder in an Oracle RAC environment, see the Oracle RAC specific instructions in *Oracle Warehouse Builder Installation and Administration Guide* (in the section, "Installing Oracle Warehouse Builder in Oracle RAC Environments").

Note: For complete information on installing Oracle Warehouse Builder, see the *Oracle Warehouse Builder Installation and Administration Guide*.

To use Oracle Warehouse Builder process flows, you must use Oracle Workflow to enable deployment. To install Oracle Warehouse Builder and integrate Oracle 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**.

Note: For complete information on these steps, see *Oracle Warehouse Builder Installation and Administration Guide*.

Installing Oracle Warehouse Builder OWBSYS Schema

Before installing OWBSYS schema, check if the OWBSYS schema is in the database. 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), then OWBSYS schema exists.

If the database already has OWBSYS schema, drop the OWBSYS and OWBSYS_AUDIT schemas as follows:

```
Connect to sqlplus as sysdba
sql> drop user owbsys cascade;
sql> drop user owbsys_audit cascade;
```

Install the OWBSYS and OWBSYS_AUDIT schemas, as follows:

1. Install OWBSYS and OWBSYS_AUDIT schemas by executing following script as sysdba from sqlplus:

```
$ORACLE_HOME/owb/bin/unix/UnifiedRepos/cat_owb.sql
```

2. Unlock the OWBSYS and OWBSYS_AUDIT schemas:

```
alter user owbsys account unlock identified by owbsys;
alter user owbsys_audit account unlock;
```

On Oracle Database Single Instance or the Primary Node on Oracle RAC:

Perform following steps for the Oracle Database on a single instance or for the Primary Node on Oracle RAC.

1. Open Warehouse Builder repository assistant to seed OWBSYS schema by creating a sample workspace with a sample new user as the workspace owner:

```
$ORACLE_HOME/owb/bin/unix/reposinst.sh
```

2. Enter database connection information (host, port, and service name) and click **Next**.
3. Select **Manage Warehouse Builder workspaces**. Click **Next**.
4. Select **Create a new Warehouse Builder workspace**. Click **Next**.
5. Select **Create a workspace with a new user as workspace owner**. Click **Next**.
6. Enter SYSDBA user name and user password. Click **Next**.
7. Enter workspace owner name, workspace owner password, and workspace name.

For example:

```
workspace owner = sample_owner, workspace name = sampleworkspace
```

8. Click **Next**, Click **Next**, and Click **Finish**.

On the Remaining Oracle RAC Nodes:

Perform following steps on remaining Oracle RAC nodes:

1. Open Warehouse builder repository assistant to register the db instance on the current node as Oracle RAC instance:

```
$ORACLE_HOME/owb/bin/unix/reposinst.sh
```

2. Enter database connection information (host, port, and service name) and click **Next**.
3. Select **Register a Real Application Cluster Instance**. Click **Next**.
4. Enter OWBSYS schema password. Click **Next** and Click **Finish**.
5. Connect to OWBSYS schema using sqlplus on the primary node of Oracle RAC and execute the following script:

```
$ORACLE_HOME/owb/rtp/sql/reset_repository.sql
```

This step updates \$ORACLE_HOME/owb/bin/admin/rtrepos.properties file on the primary node. Check the timestamp of this file to ensure that it is updated.

6. Copy the updated rtrepos.properties file to all remaining nodes to same directory (\$ORACLE_HOME/owb/bin/admin).

Creating Oracle Warehouse Builder Workspace for Oracle Retail Data Model

To create an Oracle Warehouse builder workspace with new user as owner of the workspace, perform the following steps:

1. Open Warehouse builder repository assistant for creating an OWB workspace for Oracle Retail Data Model with a new user as the workspace owner:

```
$ORACLE_HOME/owb/bin/unix/reposinst.sh
```

2. Enter database connection information (host, port, and service name) and click **Next**.
3. Select **Manage Warehouse Builder workspaces**. Click **Next**.
4. Select **Create a new Warehouse Builder workspace**. Click **Next**.
5. Select **Create a workspace with a new user as workspace owner**. Click **Next**.
6. Enter SYSDBA user name and user password. Click **Next**.
7. Enter workspace owner name, workspace owner password, and workspace name:

```
workspace owner name = owb_owner &  
workspace name = ordmworkspace
```

8. Click **Next**, Click **Next**, and Click **Finish**.

Importing Oracle Retail Data Model Intra-ETL into Workflow

To import the Oracle Retail 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/ordm/pdm/relational/intra_etl/owb/ORDM_Intra_ETL.mdl
```
4. Select **Import all objects from file**.
5. Select **Create new metadata only**.
6. Click **Import**.
7. After the import, you can see process flows under ORDM_INTRA_ETL project of Oracle Workflow.
8. Modify the location parameter for ordm_sys schema:
Expand **Locations** -> **Databases** -> **Oracle**.
Right click **ORDM_SYS_LOCATION** and click **Open**.
9. Enter ordm_sys schema password and database connection information. Click **Test Connection** to test the connection. Click **OK** if successful.

Configuring Oracle Warehouse Builder Workflow

To configure Oracle Warehouse Builder workflow to work with Oracle Retail 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 an Oracle Business Intelligence Suite Enterprise Edition Catalog

The sample reports provided with the Oracle Retail 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 an Oracle Business Intelligence Suite Enterprise Edition catalog for the Oracle Retail Data Model.

Installing Oracle Business Intelligence Suite Enterprise Edition

If you installed Oracle Retail 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 Retail 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 Analytic Workspace Manager

Although not required before you install Oracle Retail Data Model, you need to install the Analytic Workspace Manager in order to view and modify Oracle Retail 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/technetwork/database/options/olap/index.html>

Installation instructions are included in the documentation.

Backup, Recovery, and Deinstallation of Oracle Retail Data Model

This chapter explains how to deinstall Oracle Retail Data Model:

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

Backing Up and Recovering Oracle Retail Data Model

Backing up and recovering Oracle Retail Data Model involves a two-step process to:

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

The following topics outline these steps:

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

Exporting Oracle Retail Data Model

Do the following to backup Oracle Retail Data Model:

- Backup the `ORDM_SYS` schema by executing the `expdp` utility. This utility exports all physical tables containing the data, any OLAP Analytical Workspaces present in the schema and the Mining Models. For more information, see *Oracle Database Utilities*.

Importing Oracle Retail Data Model

Do the following to restore Oracle Retail Data Model from the backup files:

- Restore the `ORDM_SYS` schema by executing the `impdp` utility.
This utility imports all physical tables containing the data, OLAP Analytical Workspaces, and Mining Models. For more information, see *Oracle Database Utilities*.

Overview: Deinstalling Oracle Retail Data Model

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

1. Backup Oracle Retail Data Model, as described in "[Exporting Oracle Retail Data Model](#)" on page 5-1.
2. Stop any sessions that use the Oracle Retail 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 5-2.

Pre-Deinstallation Tasks

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

Identifying if the `ordm_sys` schema is active

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

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

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

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

Ending an active `ordm_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' ;
```

Set Oracle Home Environment Variable

Set the `ORACLE_HOME` environment variable to the location of the Database where you want to deinstall Oracle Retail Data Model.

For example, suppose that Oracle Home is in the directory
`/loc/app/oracle/product/11.2/`

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

```
$ ORACLE_HOME=/loc/app/oracle/product/11.2/  
$ export ORACLE_HOME
```

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

```
% setenv ORACLE_HOME /loc/app/oracle/product/11.2/
```

Deinstallation Script Execution

To execute the Oracle Retail Data Model deinstallation script:

1. Execute

```
$ORACLE_HOME/ordm/ordm_deinstall.sh
```
2. When prompted, enter the SYSTEM password.

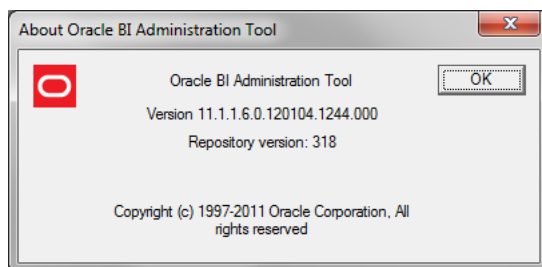
The script de-configures the Oracle Retail Data Model and executes the Oracle Installer in deinstall silent mode.

Configuration Steps for OBIEE 11g

Setting Up Users, Groups and Application Roles for ORDM OLAP in OBIEE 11g

The supported version of Oracle Business Intelligence Suite Enterprise Edition for use with Oracle Retail Data Model: OBIEE 11g 11.1.1.6 or higher, as shown in [Figure A-1](#).

Figure A-1 About Oracle BI Administration Tool Version Dialog



Note: Some of the snapshots have been taken with Oracle Business Intelligence Suite Enterprise Edition 11g (11.1.1.5) AdminTool. However the Oracle Retail Data Model rpd and webcat are delivered and supported on OBIEE 11g (11.1.1.6) version and that is the supported version. For example, the parameter `EVALUATE_SUPPORT_LEVEL` is present in OBIEE 11.1.1.6 version.

Clean up the rpd in online mode to remove all superficial users/groups/applicationroles:

In ONLINE mode, remove all custom defined users/roles and so on, so that only the BI<...> Application Roles remain within the rpd. The Online mode rpd should look similar to that shown in [Figure A-2](#): (without the custom user, groups, roles).

The User: Administrator is not mandatory (need not be present).

Figure A–2 Identity Manager Identities

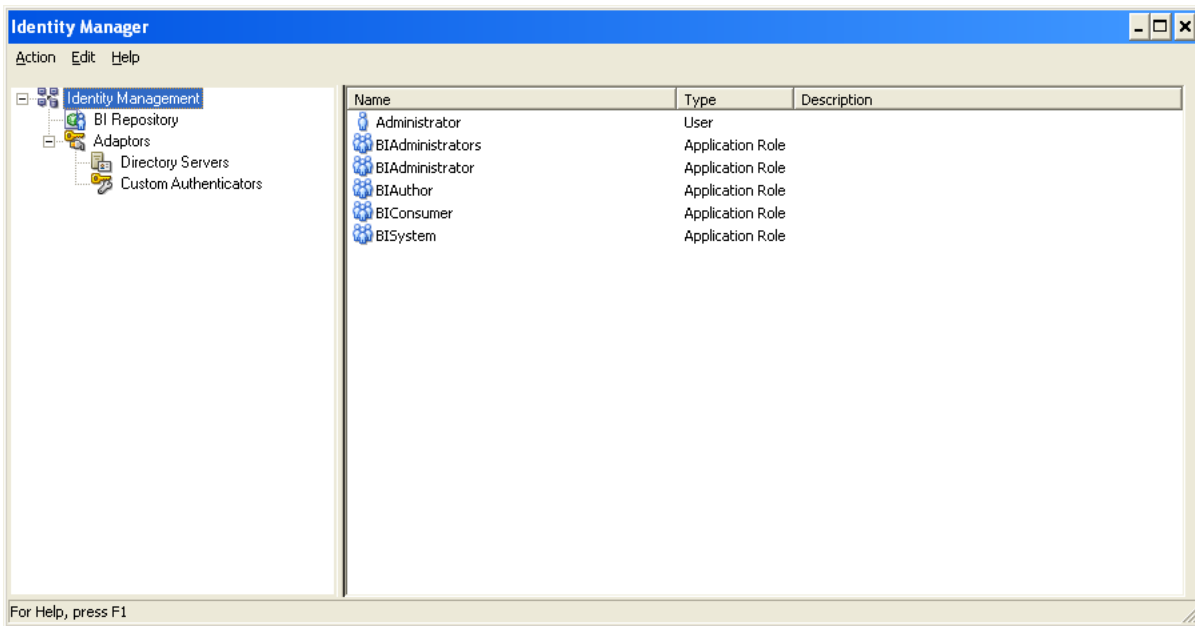
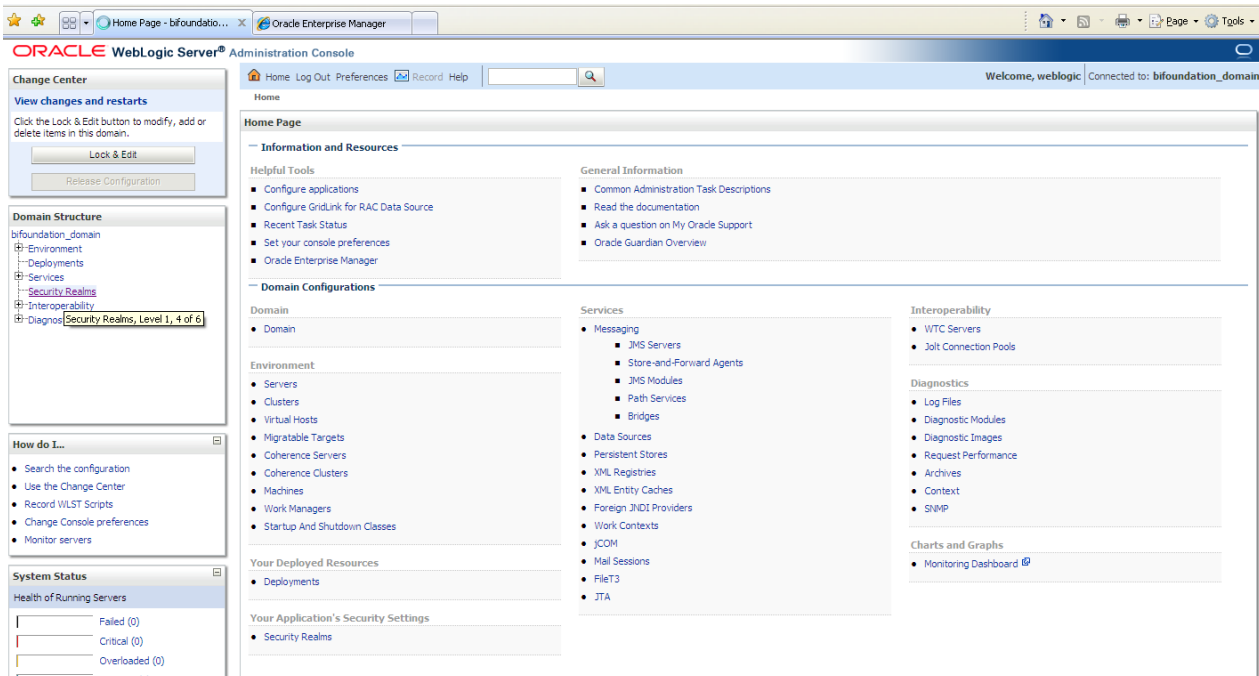


Figure A–3 shows the WebLogic Server Administration console, with the security realm.

Figure A–3 WebLogic Server Administration Console - Security Realm - myrealm - Define Users and Groups



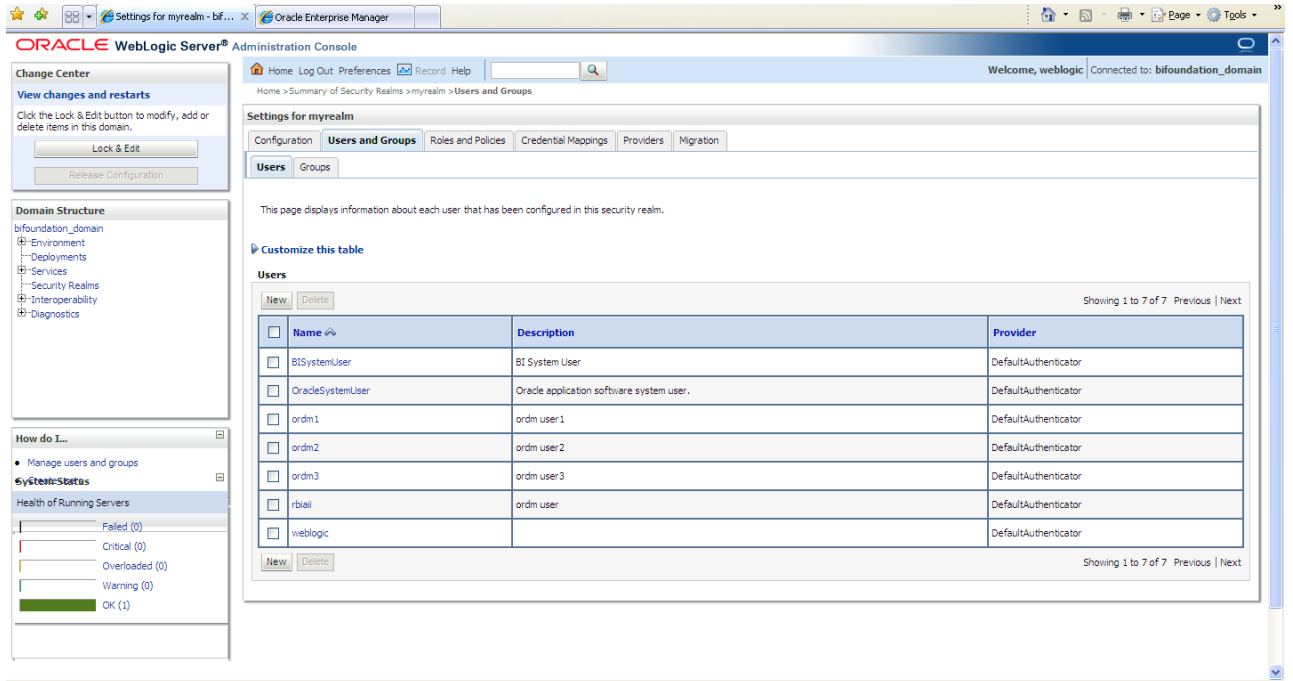
Define five users, as shown in Figure A–4:

`ordm/password`

`ordm1/password`

ordm2/password
 ordm3/password
 rbiaii/password

Figure A-4 WebLogic Server Administration Console: Define Five Users



Define two groups: ordm_olap_users and ordm_obiee_users, as shown in Figure A-5.

Figure A-5 WebLogic Server Administration Console: Define Two Groups

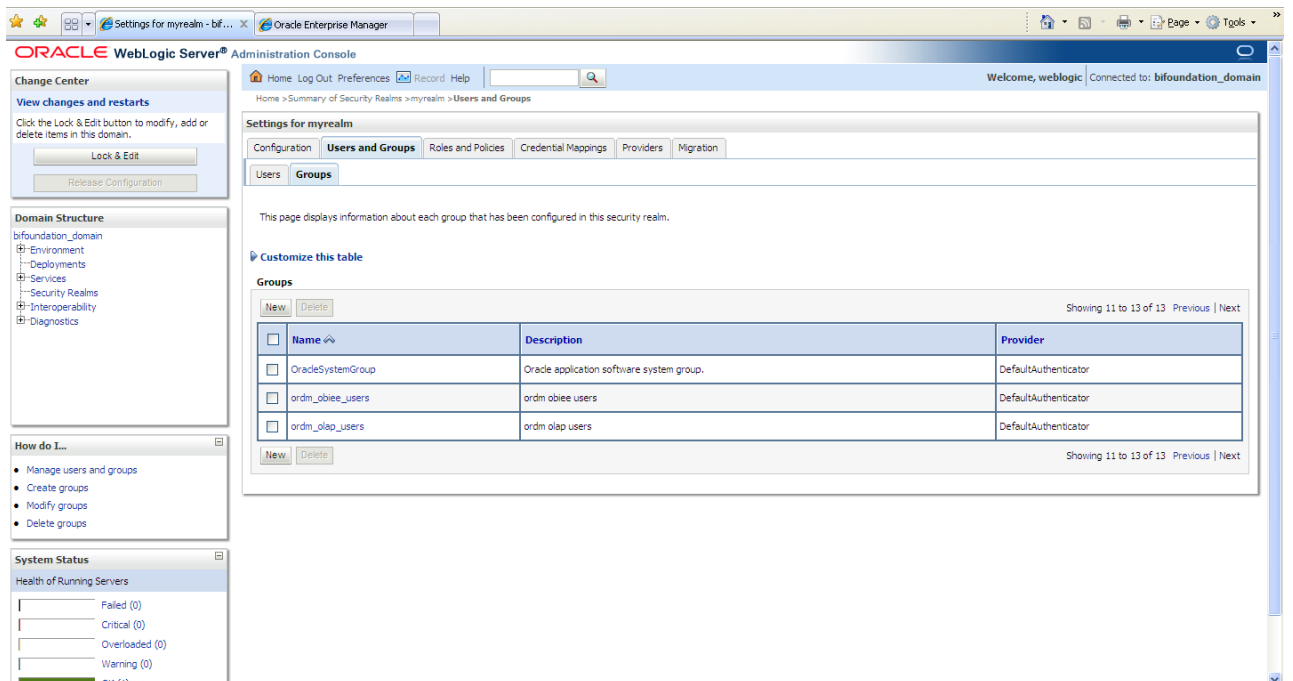


Table A-1 shows the defined users and their associated group.

Table A-1 User and Groups

User	Group
ordm	ordm_olap_users
ordm	ordm_obiee_users
ordm1	ordm_olap_users
ordm1	ordm_obiee_users
ordm2	ordm_olap_users
ordm3	ordm_obiee_users
rbiaii	ordm_olap_users
rbiaii	ordm_obiee_users

Figure A-6 shows the Oracle Enterprise Manager 11g Fusion Middleware Control for Business Intelligence - coreapplication - Configure and Manage Application Roles.

Figure A-6 coreapplication: Configure and Manage Application Roles

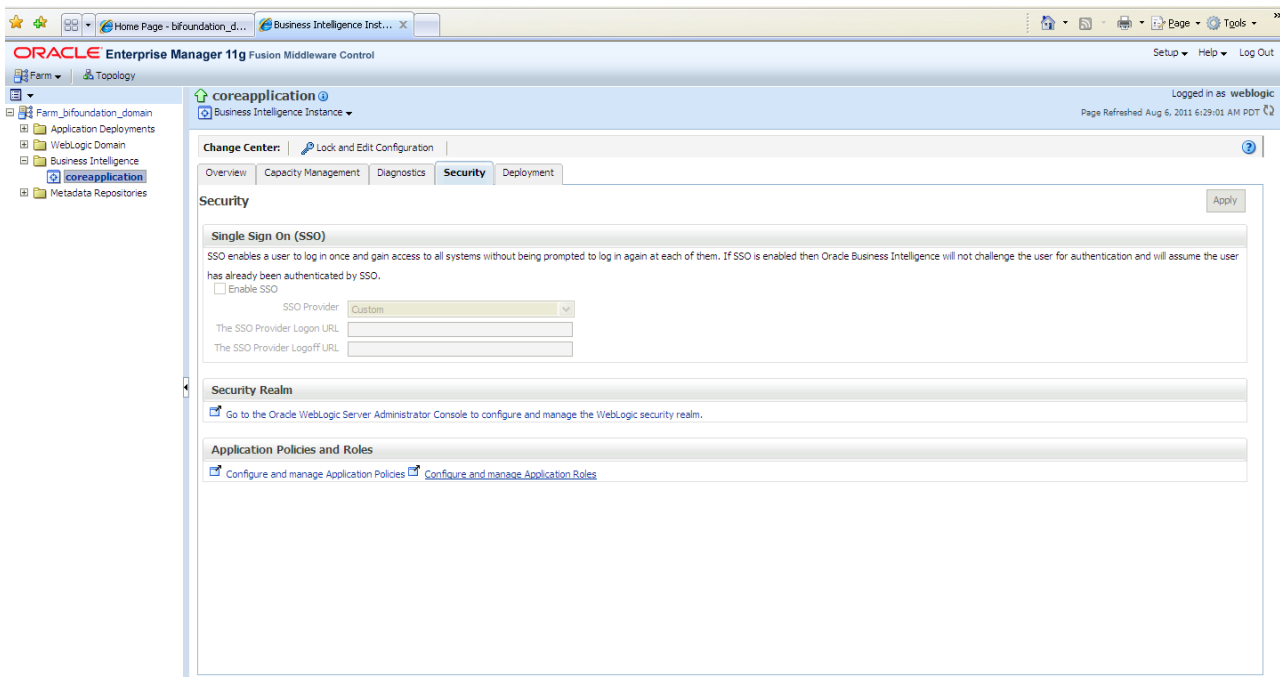


Figure A-7, Figure A-8, and Figure A-9 shows screens for creating two new Application Roles: ordm_olap_role and ordm_obiee_role containing groups: ordm_olap_users and ordm_obiee_users respectively.

Figure A-7 coreapplication: Create Two New Application Roles

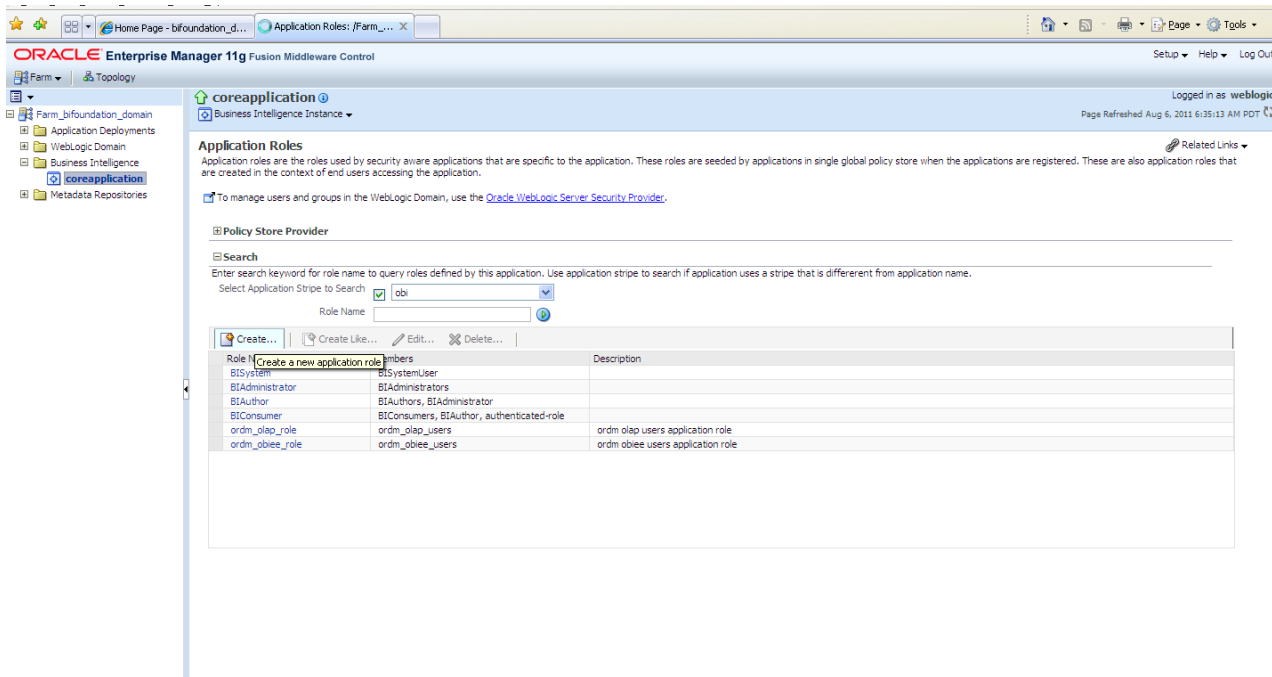


Figure A-8 coreapplication: Edit Application Role ordm_olap_role

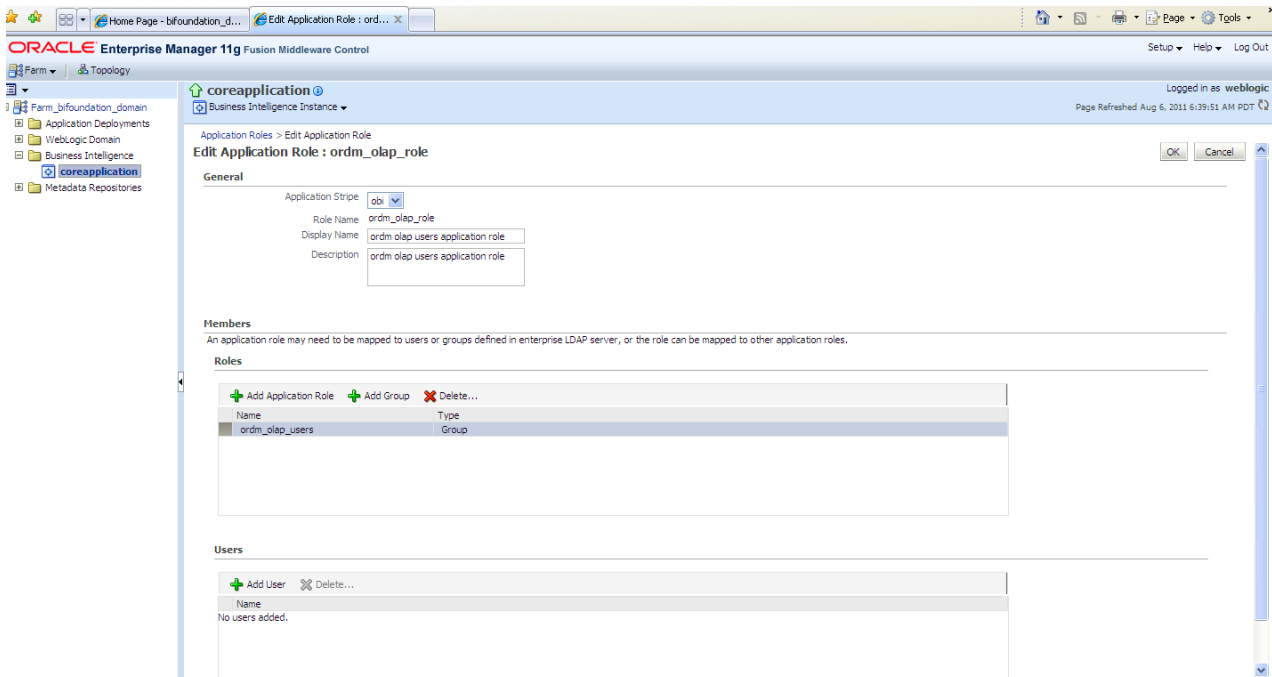


Figure A-9 coreapplication: Edit Application Role ordm_obiee_role

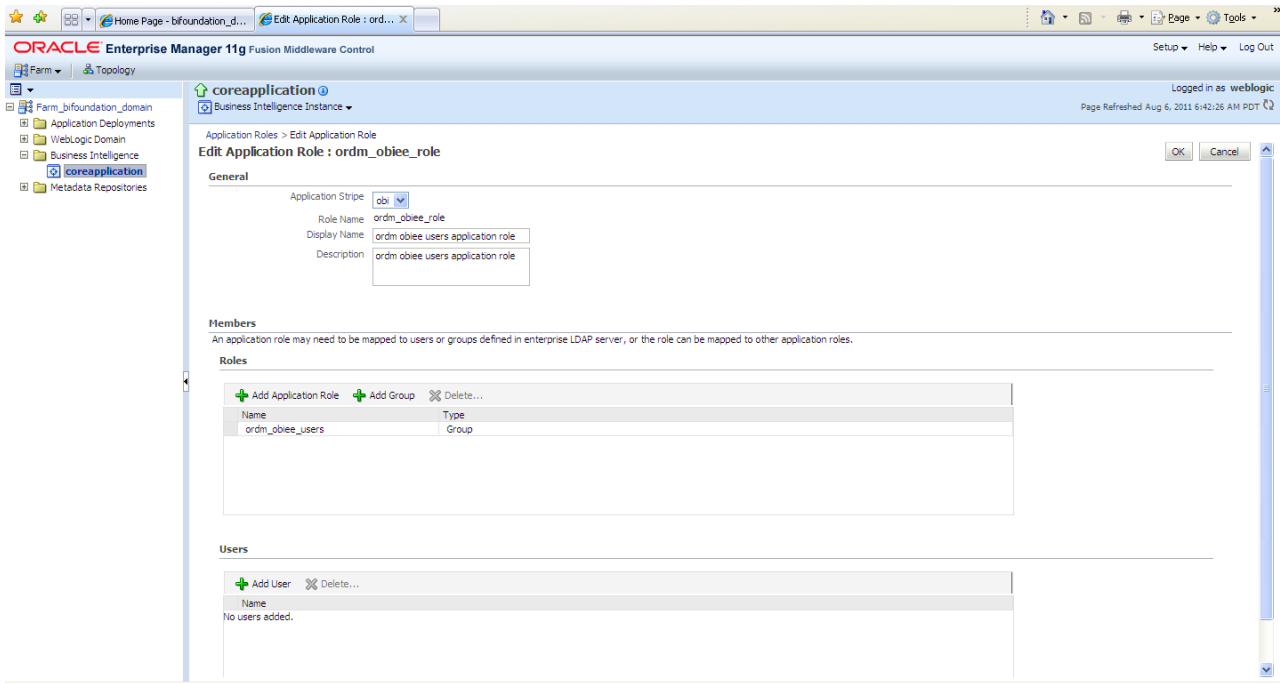


Figure A-10 shows the security setting to configure and manage application policies to add specific privileges to application roles: ordm_olap_role and ordm_obiee_role.

Figure A-10 coreapplication: Configure and Manage Application Policies

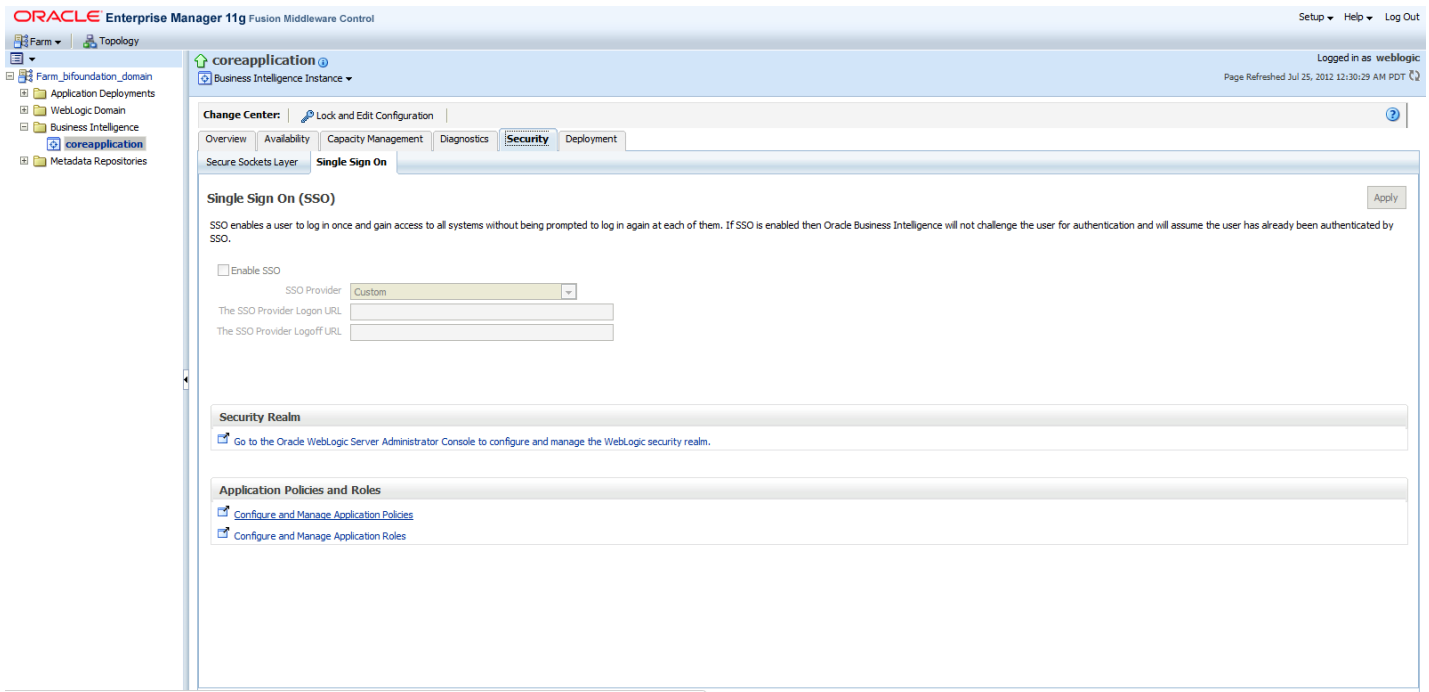


Figure A-11 shows the initial State of Application Policies.

Figure A-11 coreapplication: Initial State of Application Policies

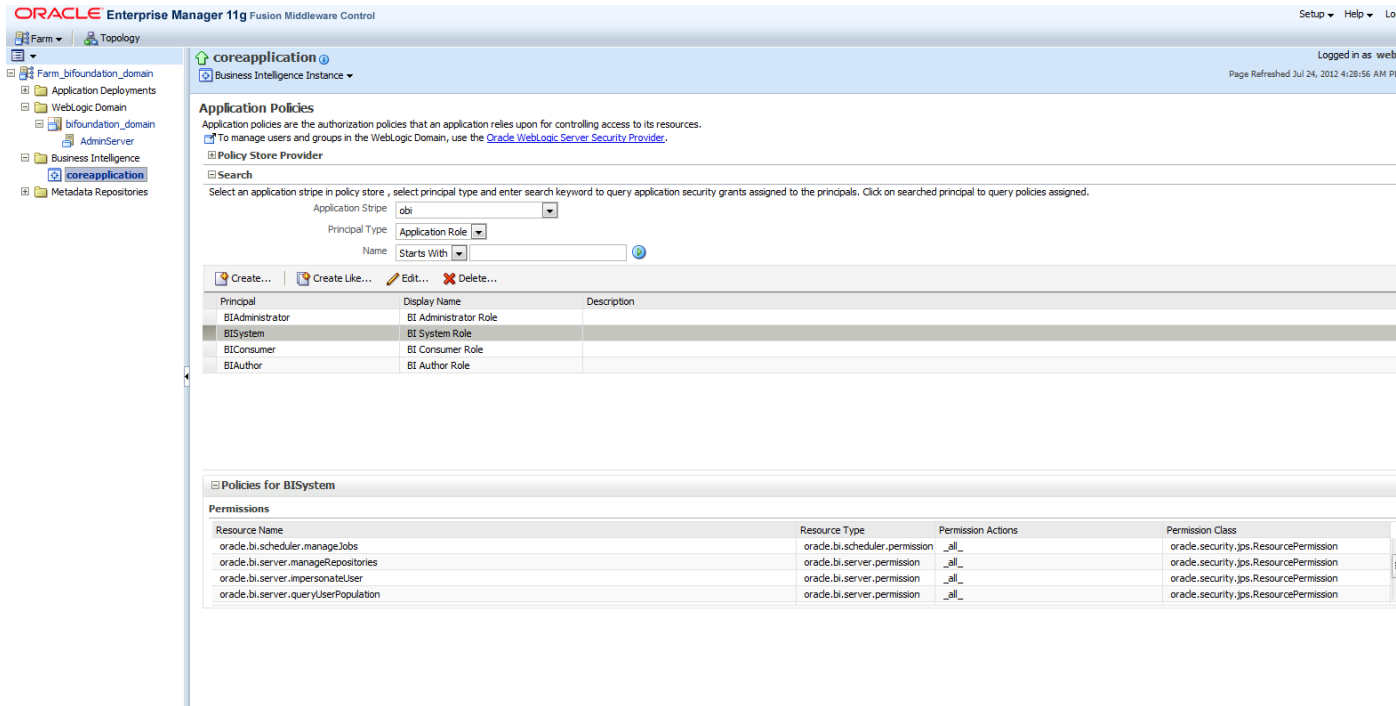


Figure A-12 shows the final State of Application Policies. The ordm_olap_role has been granted the privilege manageRepositories (oracle.bi.server.manageRepositories).

Figure A-12 coreapplication: Final State of Application Policies

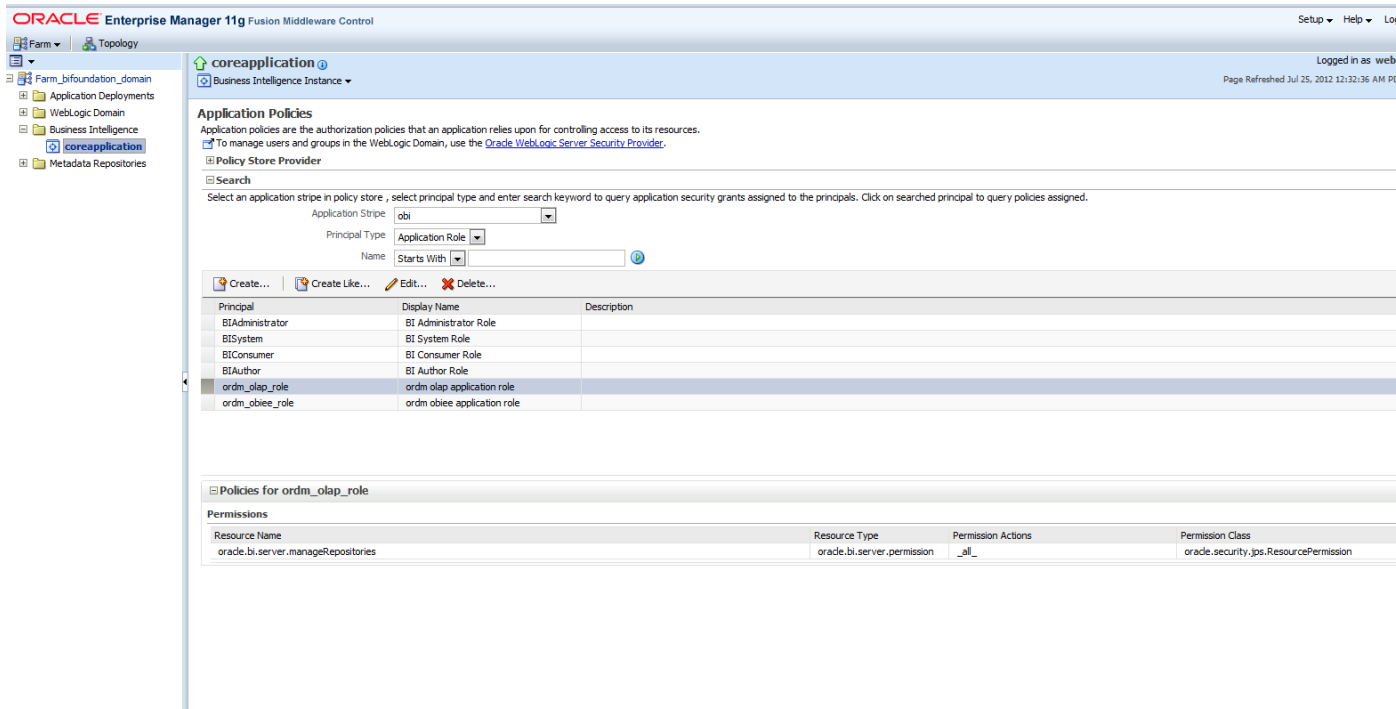
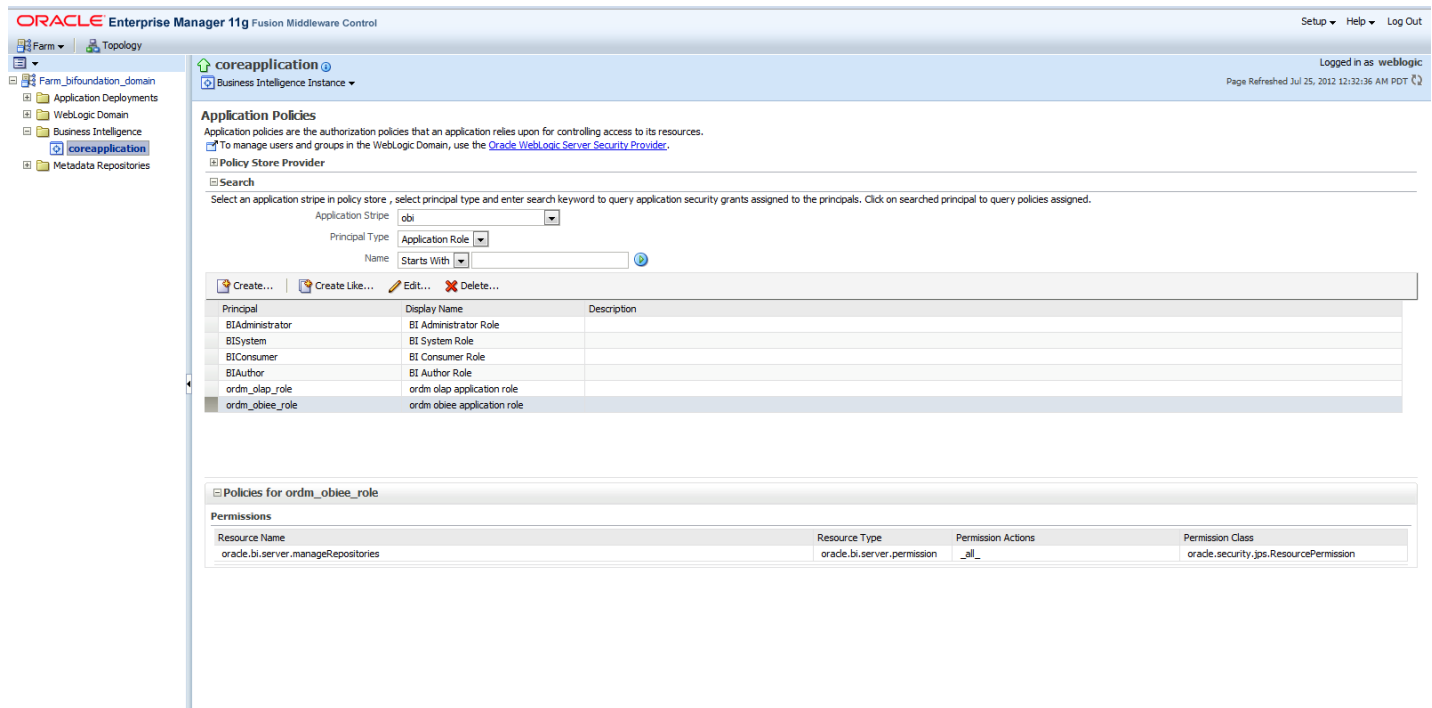


Figure A-13 shows the same privilege granted to ordm_obiee_role.

Figure A-13 coreapplication: Same Privilege Granted to ordm_obiee_role



The OBIEE Server configuration file "NQSConfig.INI" is present in the following location:

```
<OBIEEHOME>/instances/<instanceN>/config/OracleBIServerComponent/coreapplication_obis1
```

Modify the settings for EVALUATE_SUPPORT_LEVEL from the default value 0 to 1.

```
# EVALUATE_SUPPORT_LEVEL:
# 1: evaluate is supported for users with manageRepositories permission
# 2: evaluate is supported for any user.
# other: evaluate is not supported if the value is anything else.
```

```
EVALUATE_SUPPORT_LEVEL = 1;
```

Bounce, restart, the OBIEE services from Enterprise Manager. Now all front end logins (users) who belong to application roles: ordm_olap_role or ordm_obiee_role can use the EVALUATE() function (and allied functions such as EVALUATE_AGGR(), EVALUATE_ANALYTIC(), EVALUATE_PREDICATE() etc.) to make database calls from the front end and leverage database features and functionality.

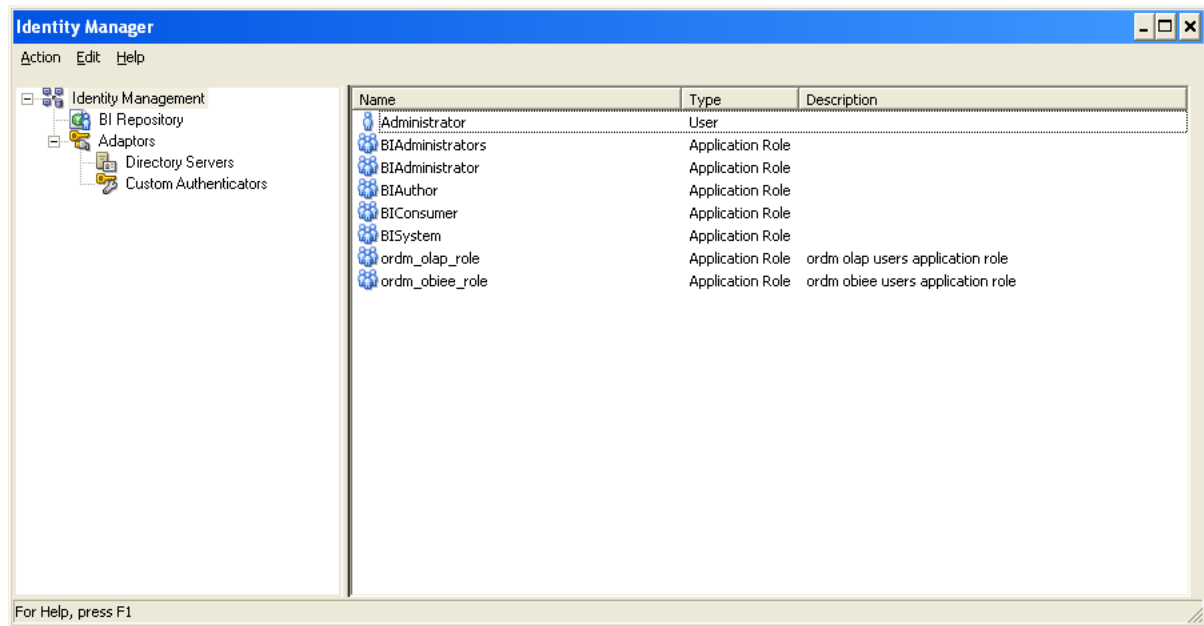
Re-start Oracle BI:

```
./opmnctl stopall
./opmnctl startall
```

Or, using the Enterprise Manager console.

Open up the rpd in online mode. Open Tools - Identity

Figure A-14 shows a screen that verifies that the newly defined application roles are present in the online mode of the rpd.

Figure A-14 Tools: Identity Management Verify Newly Defined Application Roles

Apply the OLAP security filters to the appropriate Application Roles. Once the application roles are present in the rpd, the data filters can be added in either offline mode or online mode of the rpd.

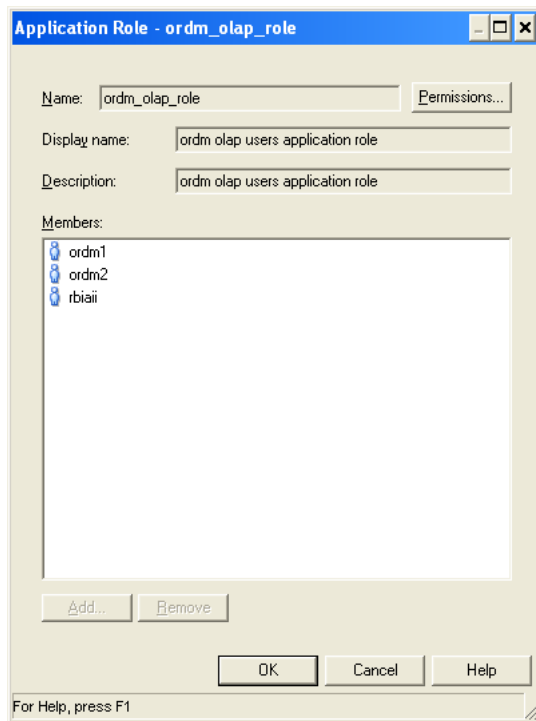
Adding the data filters in offline mode is much more efficient.

We need to do this (adding OLAP security filters) for ordm_olap_role application role.

As a result, only users belonging to ordm_obiee_role will not enforce OLAP security filters automatically in obiee reports.

Verify that the relevant users are present under the application role, as shown in [Figure A-15](#).

NOTE: you should also find that user ordm is also present in the list.

Figure A-15 Application Roles for ormd_olap_role

Add the data security filters for all the cubes as shown in [Example A-1](#).

Example A-1 Security Filters for Cubes

```
# For the OLAP Users group (ordm_olap_role), create a security filter on the Logical Table(s)
# in the Business Model using the following text. Do not include the initial # character.
#
# For Cube Logical Table: Activity Request
#
# "ORDM_OLAP"."Activity Request Type"."Activity Request Type Key" = "ORDM_OLAP"."Activity
Request"."Activity Request Type" AND "ORDM_OLAP"."Customer"."Customer Key" = "ORDM_OLAP"."Activity
Request"."Customer" AND "ORDM_OLAP"."Employee"."Employee Key" = "ORDM_OLAP"."Activity
Request"."Employee" AND "ORDM_OLAP"."Interaction Reason"."Interaction Reason Key" = "ORDM_
OLAP"."Activity Request"."Interaction Reason" AND "ORDM_OLAP"."Interaction Status"."Interaction
Status Key" = "ORDM_OLAP"."Activity Request"."Interaction Status" AND "ORDM_OLAP"."Interaction
Type"."Interaction Type Key" = "ORDM_OLAP"."Activity Request"."Interaction Type" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Activity Request"."Organization" AND "ORDM_
OLAP"."Request Origin"."Request Origin Key" = "ORDM_OLAP"."Activity Request"."Request Origin" AND
"ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Activity Request"."Time"
#
#
# For Cube Logical Table: Asset
#
# "ORDM_OLAP"."Assets Type"."Assets Type Key" = "ORDM_OLAP"."Asset"."Assets Type" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Asset"."Organization" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Asset"."Time"
#
#
# For Cube Logical Table: Carrier Compliance
#
# "ORDM_OLAP"."Carrier"."Carrier Key" = "ORDM_OLAP"."Carrier Compliance"."Carrier" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Carrier Compliance"."Organization" AND
```

```

"ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Carrier Compliance"."Time" AND "ORDM_OLAP"."Vendor
Site"."Vendor Site Key" = "ORDM_OLAP"."Carrier Compliance"."Vendor Site"
#
#
# For Cube Logical Table: Customer Order
#
# "ORDM_OLAP"."Campaign Media"."Campaign Media Key" = "ORDM_OLAP"."Customer Order"."Campaign
Media" AND "ORDM_OLAP"."Customer"."Customer Key" = "ORDM_OLAP"."Customer Order"."Customer" AND
"ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Customer Order"."Organization" AND
"ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Customer Order"."Product" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Customer Order"."Time"
#
#
# For Cube Logical Table: Customer Rfmp
#
# "ORDM_OLAP"."Customer"."Customer Key" = "ORDM_OLAP"."Customer Rfmp"."Customer" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Customer Rfmp"."Organization" AND "ORDM_
OLAP"."Rfmp"."Rfmp Key" = "ORDM_OLAP"."Customer Rfmp"."Rfmp" AND "ORDM_OLAP"."Time"."Time Key" =
"ORDM_OLAP"."Customer Rfmp"."Time"
#
#
# For Cube Logical Table: Customer Rfmp Dc
#
# "ORDM_OLAP"."Customer"."Customer Key" = "ORDM_OLAP"."Customer Rfmp Dc"."Customer" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Customer Rfmp Dc"."Organization" AND "ORDM_
OLAP"."Rfmp"."Rfmp Key" = "ORDM_OLAP"."Customer Rfmp Dc"."Rfmp" AND "ORDM_OLAP"."Time"."Time Key"
= "ORDM_OLAP"."Customer Rfmp Dc"."Time"
#
#
# For Cube Logical Table: Customer Sku Sale Return
#
# "ORDM_OLAP"."Customer"."Customer Key" = "ORDM_OLAP"."Customer Sku Sale Return"."Customer" AND
"ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Customer Sku Sale
Return"."Organization" AND "ORDM_OLAP"."Post Code"."Post Code Key" = "ORDM_OLAP"."Customer Sku
Sale Return"."Post Code" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Customer Sku Sale
Return"."Product" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Customer Sku Sale Return"."Time"
#
#
# For Cube Logical Table: Employee Labor
#
# "ORDM_OLAP"."Business Unit Shift"."Business Unit Shift Key" = "ORDM_OLAP"."Employee
Labor"."Business Unit Shift" AND "ORDM_OLAP"."Employee"."Employee Key" = "ORDM_OLAP"."Employee
Labor"."Employee" AND "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Employee
Labor"."Organization" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Employee Labor"."Time"
#
#
# For Cube Logical Table: Employee Wage Payment
#
# "ORDM_OLAP"."Employee"."Employee Key" = "ORDM_OLAP"."Employee Wage Payment"."Employee" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Employee Wage Payment"."Organization" AND
"ORDM_OLAP"."Pay Type"."Pay Type Key" = "ORDM_OLAP"."Employee Wage Payment"."Pay Type" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Employee Wage Payment"."Time"
#
#
# For Cube Logical Table: Inventory Adjustment
#
# "ORDM_OLAP"."Environment Type"."Environment Type Key" = "ORDM_OLAP"."Inventory
Adjustment"."Environment Type" AND "ORDM_OLAP"."Inventory Location"."Inventory Location Key" =
"ORDM_OLAP"."Inventory Adjustment"."Inventory Location" AND "ORDM_
OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Inventory Adjustment"."Organization" AND

```

```

"ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Inventory Adjustment"."Product" AND "ORDM_
OLAP"."Reason"."Reason Key" = "ORDM_OLAP"."Inventory Adjustment"."Reason" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Inventory Adjustment"."Time"
#
#
# For Cube Logical Table: Inventory Cube
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Inventory Cube"."Organization" AND
"ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Inventory Cube"."Product" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Inventory Cube"."Time"
#
#
# For Cube Logical Table: Inventory Forecast Cube
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Inventory Forecast
Cube"."Organization" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Inventory Forecast
Cube"."Product" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Inventory Forecast Cube"."Time"
#
#
# For Cube Logical Table: Inventory Forecast Statistic
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Inventory Forecast
Statistic"."Organization" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Inventory Forecast
Statistic"."Product" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Inventory Forecast
Statistic"."Time"
#
#
# For Cube Logical Table: Inventory Receipt
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Inventory Receipt"."Organization"
AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Inventory Receipt"."Product" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Inventory Receipt"."Time"
#
#
# For Cube Logical Table: Inventory Unavailable
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Inventory
Unavailable"."Organization" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Inventory
Unavailable"."Product" AND "ORDM_OLAP"."Reason"."Reason Key" = "ORDM_OLAP"."Inventory
Unavailable"."Reason" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Inventory
Unavailable"."Time"
#
#
# For Cube Logical Table: Liability
#
# "ORDM_OLAP"."Liability Type"."Liability Type Key" = "ORDM_OLAP"."Liability"."Liability Type" AND
"ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Liability"."Time"
#
#
# For Cube Logical Table: Store Hours
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Store Hours"."Organization" AND
"ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Store Hours"."Time"
#
#
# For Cube Logical Table: Store Traffic
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Store Traffic"."Organization" AND
"ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Store Traffic"."Time"
#

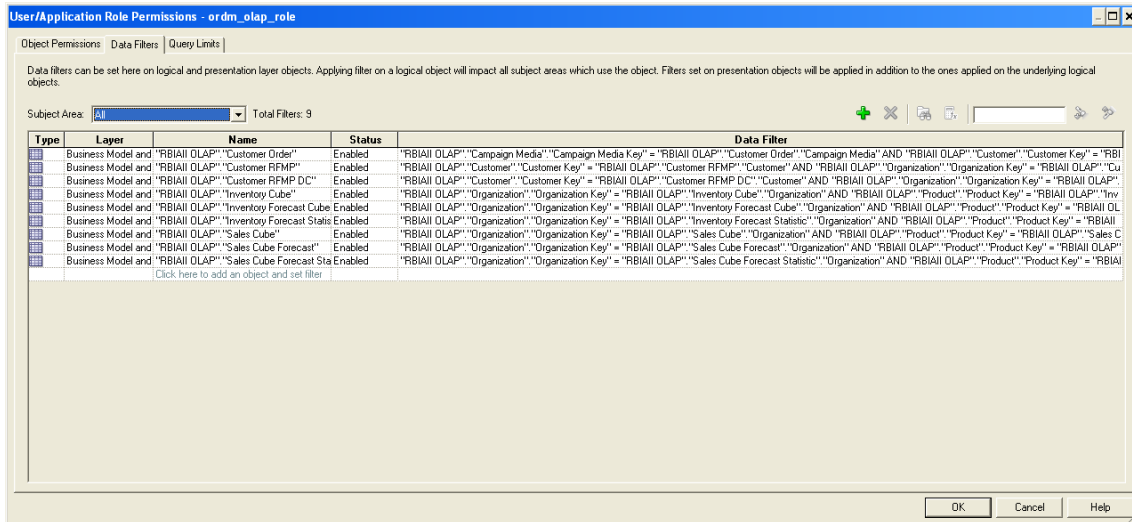
```

```
#
# For Cube Logical Table: Purchase Order Line Item State
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Purchase Order Line Item
State"."Organization" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Purchase Order Line
Item State"."Product" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Purchase Order Line Item
State"."Time" AND "ORDM_OLAP"."Vendor"."Vendor Key" = "ORDM_OLAP"."Purchase Order Line Item
State"."Vendor" AND "ORDM_OLAP"."Vendor Site"."Vendor Site Key" = "ORDM_OLAP"."Purchase Order Line
Item State"."Vendor Site"
#
#
# For Cube Logical Table: Purchase Order State
#
# "ORDM_OLAP"."Order Type"."Order Type Key" = "ORDM_OLAP"."Purchase Order State"."Order Type" AND
"ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Purchase Order State"."Organization"
AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Purchase Order State"."Time" AND "ORDM_
OLAP"."Unit Of Measure"."Unit Of Measure Key" = "ORDM_OLAP"."Purchase Order State"."Unit Of
Measure" AND "ORDM_OLAP"."Vendor"."Vendor Key" = "ORDM_OLAP"."Purchase Order State"."Vendor" AND
"ORDM_OLAP"."Vendor Site"."Vendor Site Key" = "ORDM_OLAP"."Purchase Order State"."Vendor Site"
#
#
# For Cube Logical Table: Retail Transaction Employee Workstation
#
# "ORDM_OLAP"."Employee"."Employee Key" = "ORDM_OLAP"."Retail Transaction Employee
Workstation"."Employee" AND "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Retail
Transaction Employee Workstation"."Organization" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_
OLAP"."Retail Transaction Employee Workstation"."Time" AND "ORDM_OLAP"."Touchpoint"."Touchpoint
Key" = "ORDM_OLAP"."Retail Transaction Employee Workstation"."Touchpoint"
#
#
# For Cube Logical Table: Sales Plan Item Organization Hierarchy
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Sales Plan Item Organization
Hierarchy"."Organization" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Sales Plan Item
Organization Hierarchy"."Product" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Sales Plan Item
Organization Hierarchy"."Time"
#
#
# For Cube Logical Table: Sales Cube
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Sales Cube"."Organization" AND
"ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Sales Cube"."Product" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Sales Cube"."Time"
#
#
# For Cube Logical Table: Sales Cube - Cube based Qr enabled
#
# "ORDM_OLAP"."Organization Qr Dimension"."Organization Qr Dimension Key" = "ORDM_OLAP"."Sales Cube
- Cube based Qr enabled"."Organization Qr Dimension" AND "ORDM_OLAP"."Product Qr
Dimension"."Product Qr Dimension Key" = "ORDM_OLAP"."Sales Cube - Cube based Qr enabled"."Product
Qr Dimension" AND "ORDM_OLAP"."Time Qr Dimension"."Time Qr Dimension Key" = "ORDM_OLAP"."Sales
Cube - Cube based Qr enabled"."Time Qr Dimension"
#
#
# For Cube Logical Table: Sales Cube Forecast
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Sales Cube Forecast"."Organization"
AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Sales Cube Forecast"."Product" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Sales Cube Forecast"."Time"
#
```

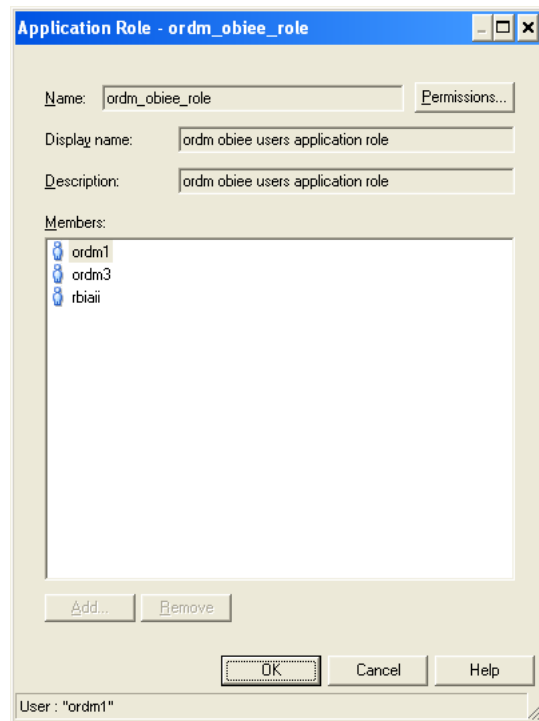
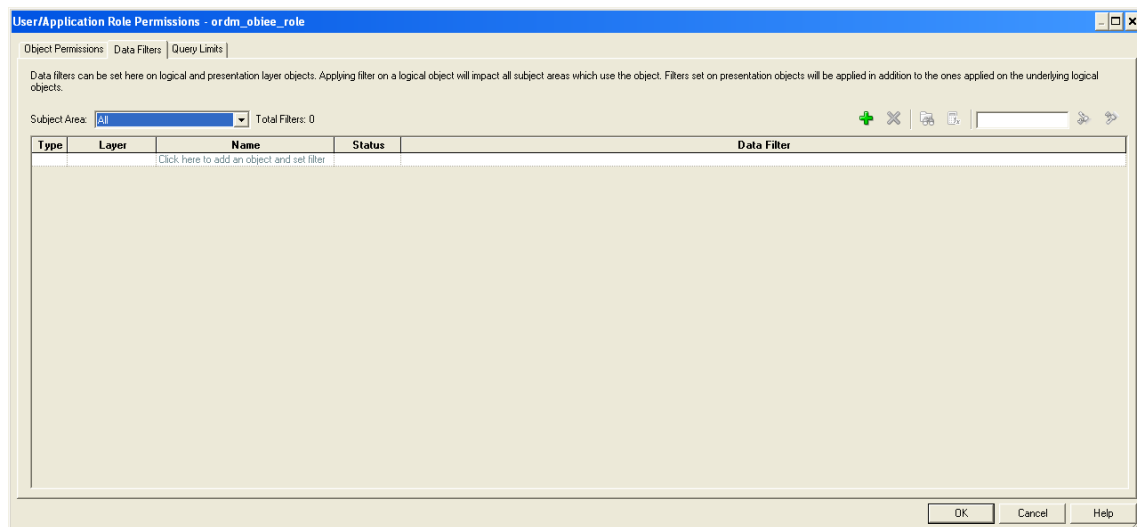
```
#
# For Cube Logical Table: Sales Cube Forecast Statistic
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Sales Cube Forecast
Statistic"."Organization" AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Sales Cube
Forecast Statistic"."Product" AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Sales Cube Forecast
Statistic"."Time"
#
#
# For Cube Logical Table: Space Utilization
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Space Utilization"."Organization"
AND "ORDM_OLAP"."Product"."Product Key" = "ORDM_OLAP"."Space Utilization"."Product" AND "ORDM_
OLAP"."Time"."Time Key" = "ORDM_OLAP"."Space Utilization"."Time"
#
#
# For Cube Logical Table: Vendor Compliance
#
# "ORDM_OLAP"."Organization"."Organization Key" = "ORDM_OLAP"."Vendor Compliance"."Organization"
AND "ORDM_OLAP"."Time"."Time Key" = "ORDM_OLAP"."Vendor Compliance"."Time" AND "ORDM_
OLAP"."Vendor"."Vendor Key" = "ORDM_OLAP"."Vendor Compliance"."Vendor" AND "ORDM_OLAP"."Vendor
Item"."Vendor Item Key" = "ORDM_OLAP"."Vendor Compliance"."Vendor Item"
#
```

Figure A-16 shows the end result for ordm_olap_users role.

Figure A-16 ordm_olap_users Data Filters



You should see ordm, ordm1, ordm3 and rbiaii Members, as shown in Figure A-17.

Figure A-17 Application Role: ordm_obiee_role**Figure A-18 User and Application Role Permissions for ordm_obiee_role with Data Filters Tab**

Re-start Oracle BI with the commands:

```
./opmnctl stopall
./opmnctl startall
```

Login as ordm, ordm1, ordm2, ordm3, rbiaii and weblogic and check results for same report. Create a test rpt1 report, as shown in [Example A-2](#).

Sales Cube is dimensioned by Organization, Product and Time.

Create a report which uses two dimensions:

Product (Total Product)

and

Time (Business Year - BY 2008, BY 2009, BY 2010 and BY 2011)

Include a few measures from the Sales Cube.

Note: the Organization dimension not included.

In the case of ordm, ordm1, ordm2 and rbiaii, the obiee user belongs to application role: ordm_olap_role, the missing dimension is inserted into the query internally (automatically) leading to a report which contains a single row for each "Total Product, <Bsns Yr>" combination, with four in all.

Example A-2 Test Report for Sales Cube with Two Dimensions

```
[2011-08-06T17:38:50.000+00:00] [OracleBIServerComponent] [TRACE:3] [USER-18] [] [ecid:
ca92a5c9efc3ac16:592577f6:131950fbbf0:-8000-00000000000057b2] [tid: 466a6940] [requestid: 62600003]
[sessionid: 62600000] [username: ordm2] ----- Sending query to database named RBIAII
OLAP (id: <<261698>>), connection pool named ORDM_LOCAL: [[
WITH
SAWITH0 AS (select distinct T173737.SU as c1,
T173737.SU_LY_PCT_CHG as c2,
T173737.HOW_IS_SU_G_YOY as c3,
T171557.TPROD_LONG_DESCRIPTION as c4,
T171981.BSNS_YR_LONG_DESCRIPTION as c5,
T171557.HIER_ORDER as c6,
T171981.HIER_ORDER as c7
from
TIME_HTBSNS_VIEW T171981,
PROD_HPROD_VIEW T171557,
ORG_HORG_VIEW T171393,
SLS_VIEW_FIN T173737
where ( T171393.DIM_KEY = T173737.ORGANIZATION and T171557.DIM_KEY = T173737.PRODUCT and
T171393.LEVEL_NAME = 'TORG' and T171557.LEVEL_NAME = 'TPROD' and T171981.DIM_KEY = T173737.TIME
and T171981.LEVEL_NAME = 'BSNS_YR' and (T171981.BSNS_YR_LONG_DESCRIPTION = 'BY 2008' or
T171981.BSNS_YR_LONG_DESCRIPTION = 'BY 2009' or T171981.BSNS_YR_LONG_DESCRIPTION = 'BY 2010' or
T171981.BSNS_YR_LONG_DESCRIPTION = 'BY 2011') ) )
select distinct 0 as c1,
D1.c4 as c2,
D1.c3 as c3,
D1.c2 as c4,
D1.c1 as c5,
D1.c5 as c6,
D1.c6 as c7,
D1.c7 as c8
from
SAWITH0 D1
order by c7, c8, c5, c4, c3
]]
```

Example A-3 shows the case for the ordm3 user and weblogic, where the obiee user belongs to application role: ordm_obiee_role (this role does not contain OLAP security filters and is also not a parent application role encompassing ordm_olap_role), the missing dimension is thus not inserted into the query internally (automatically) leading to a report query which joins fact to two dimensions and leaves the Organization dimension untouched. For this example you get multiple rows (corresponding to each Organization member - collected from across all Organization levels) for each "Total Product, <Bsns Yr>" combination. NOTE: The use of DISTINCT clause in obiee query removes duplicates within the resultset and we end up with a final figure for # of rows (67) which is not a multiple of 4.

Example A-3 Test Case for User ordm3

```

[2011-08-06T17:43:41.000+00:00] [OracleBIServerComponent] [TRACE:3] [USER-18] []
[ecid: ca92a5c9efc3ac16:592577f6:131950fbbf0:-8000-000000000000583c] [tid:
46aaa940] [requestid: 625e0004] [sessionid: 625e0000] [username: ordm3]
----- Sending query to database named RBIAII OLAP (id: <<263101>>),
connection pool named ORDM_LOCAL: [[
WITH
SAWITH0 AS (select distinct T173737.SU as c1,
T173737.SU_LY_PCT_CHG as c2,
T173737.HOW_IS_SU_G_YOY as c3,
T171557.TPROD_LONG_DESCRIPTION as c4,
T171981.BSNS_YR_LONG_DESCRIPTION as c5,
T171557.HIER_ORDER as c6,
T171981.HIER_ORDER as c7
from
TIME_HTBSNS_VIEW T171981,
PROD_HPROD_VIEW T171557,
SLS_VIEW_FIN T173737
where ( T171557.DIM_KEY = T173737.PRODUCT and T171557.LEVEL_NAME = 'TPROD' and
T171981.DIM_KEY = T173737.TIME and T171981.LEVEL_NAME = 'BSNS_YR' and
(T171981.BSNS_YR_LONG_DESCRIPTION = 'BY 2008' or T171981.BSNS_YR_LONG_DESCRIPTION
= 'BY 2009' or T171981.BSNS_YR_LONG_ DESCRIPTION = 'BY 2010' or T171981.BSNS_YR_
LONG_DESCRIPTION = 'BY 2011') ) )
select distinct 0 as c1,
D1.c4 as c2,
D1.c3 as c3,
D1.c2 as c4,
D1.c1 as c5,
D1.c5 as c6,
D1.c6 as c7,
D1.c7 as c8
from
SAWITH0 D1
order by c7, c8, c5, c4, c3
]]

```

Figure A-19 Oracle BIAnswers Criteria Tab Sample for ordm1_test_rpt1

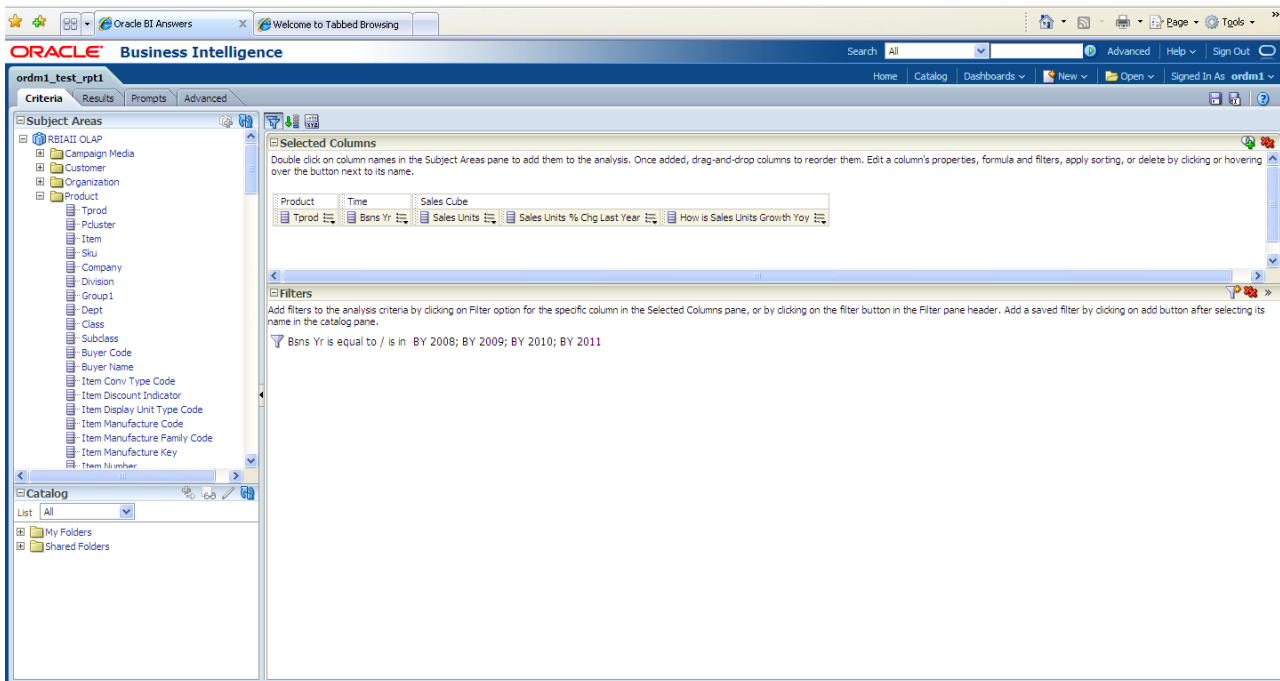


Figure A-20 shows the ordm1 test results.

Figure A-20 ordm1 Report Result

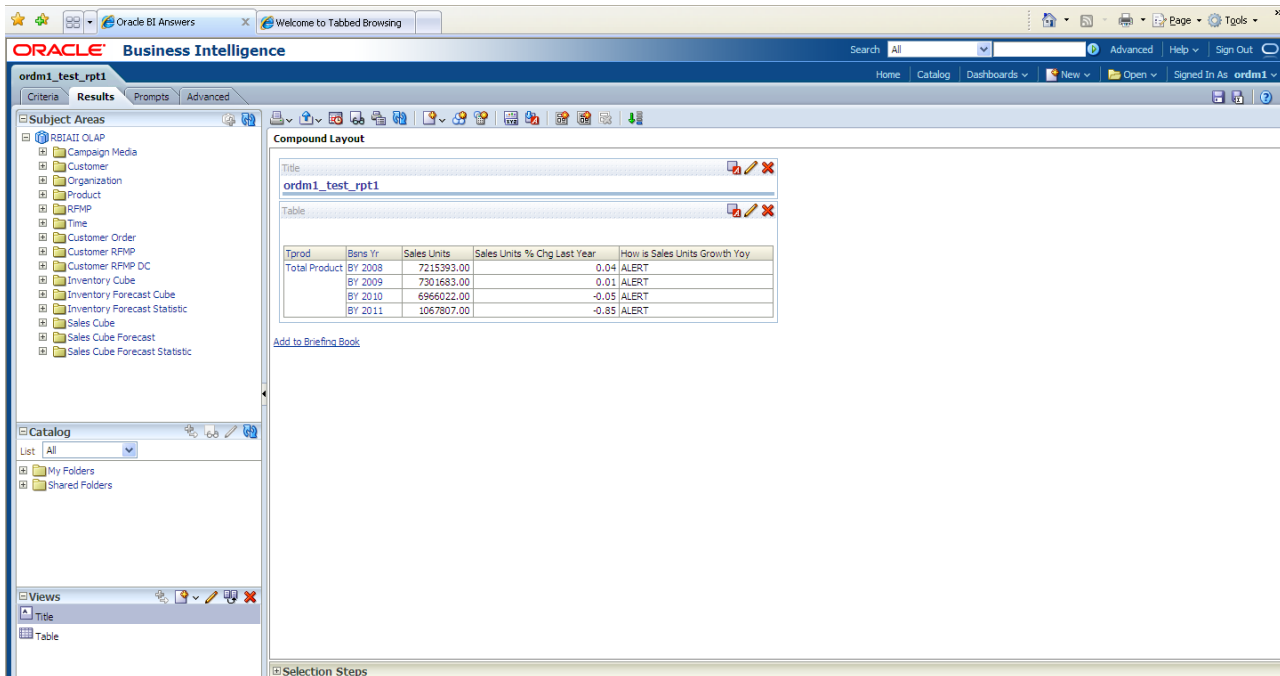


Figure A-21 shows the ordm2 test results.

Figure A-21 ordm2 Report Results

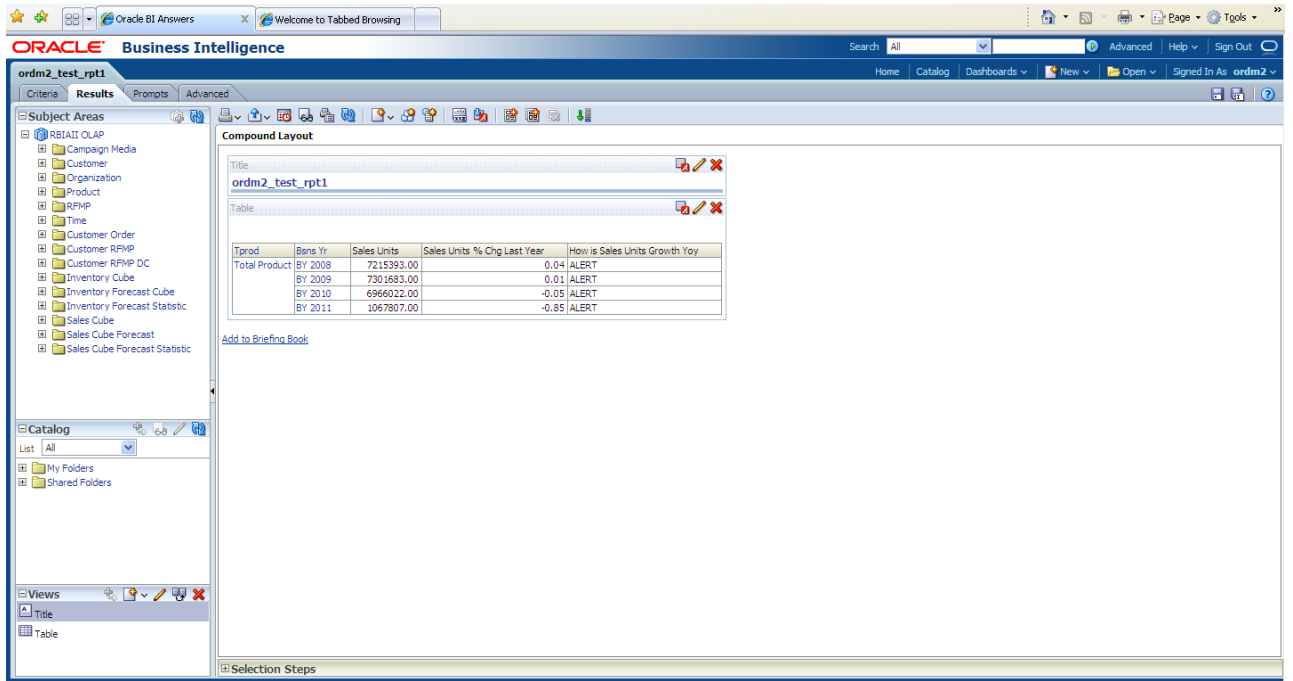


Figure A-22 and Figure A-23 shows the ordm3 report results.

Figure A-22 ordm3 Report Results

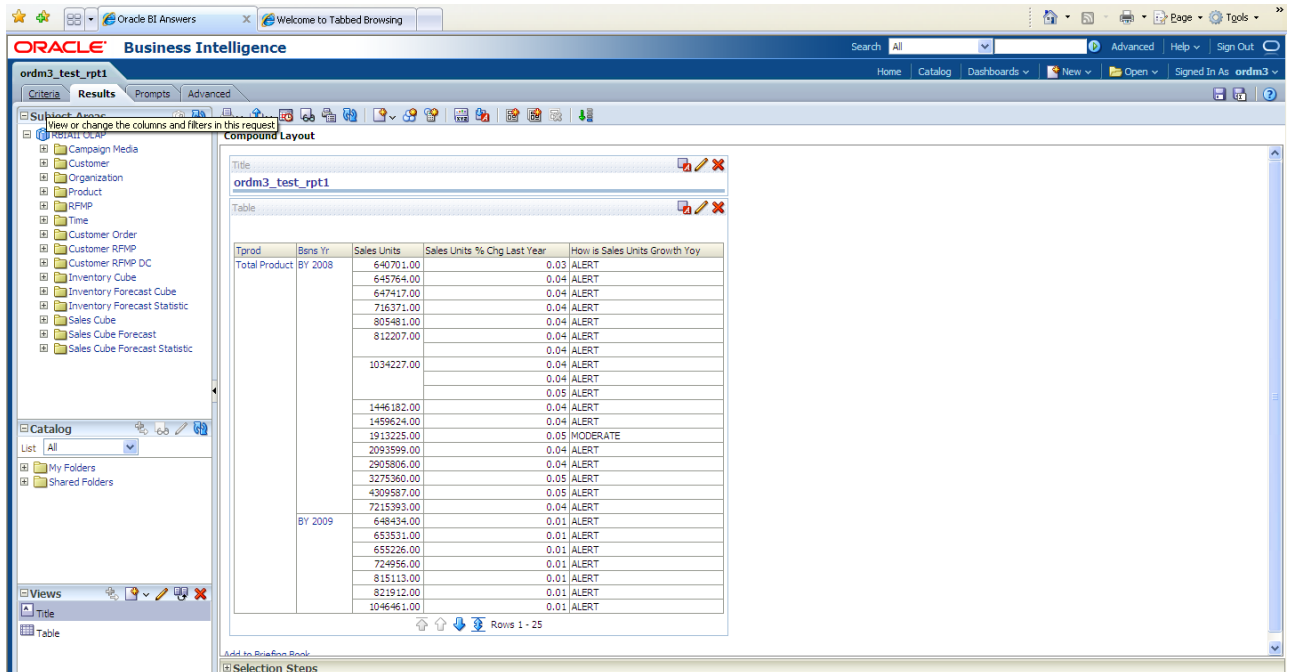


Figure A-23 *ordm3 Report Results (continued)*

Product	Value	% Chg	Status
	625113.00	-0.05	ALERT
	691618.00	-0.05	ALERT
	777622.00	-0.05	ALERT
	784093.00	-0.05	ALERT
	998402.00	-0.05	ALERT
	1396250.00	-0.05	ALERT
	1409206.00	-0.05	ALERT
	1847093.00	-0.05	ALERT
	2021363.00	-0.05	ALERT
	2805456.00	-0.05	ALERT
	3162164.00	-0.05	ALERT
	4160566.00	-0.05	ALERT
	6966022.00	-0.05	ALERT
BY 2011	2430.00		
	2565.00		
	93883.00	-0.85	ALERT
	94504.00	-0.85	ALERT
	94729.00	-0.85	ALERT
	112167.00	-0.84	ALERT
	124024.00	-0.84	ALERT
	124990.00	-0.84	ALERT
	127555.00	-0.84	ALERT
	146435.00	-0.85	ALERT
	148865.00	-0.85	ALERT
	217907.00	-0.84	ALERT
	222149.00	-0.84	ALERT
	272080.00	-0.85	ALERT
	312636.00	-0.85	ALERT
	440191.00	-0.84	ALERT
	478751.00	-0.85	ALERT
	627616.00	-0.85	ALERT
	1067807.00	-0.85	ALERT

Figure A-24 shows the rbiaii report result.

Figure A-24 *rbiaii Report Results*

Prod	Bns Yr	Sales Units	Sales Units % Chg Last Year	How is Sales Units Growth Yoy
Total Product	BY 2008	7215393.00	0.04	ALERT
	BY 2009	7301683.00	0.01	ALERT
	BY 2010	6966022.00	-0.05	ALERT
	BY 2011	1067807.00	-0.85	ALERT

Figure A-25 and Figure A-26 show the weblogic report results.

Figure A-25 WebLogic Test Results

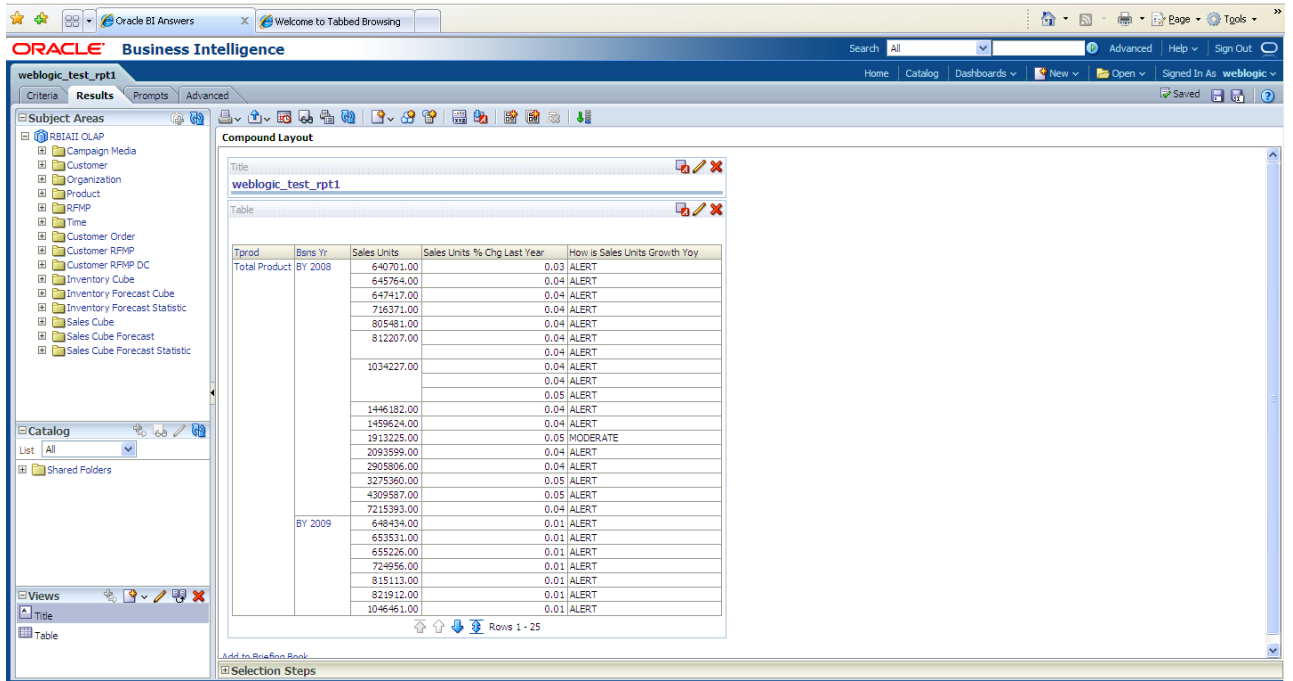
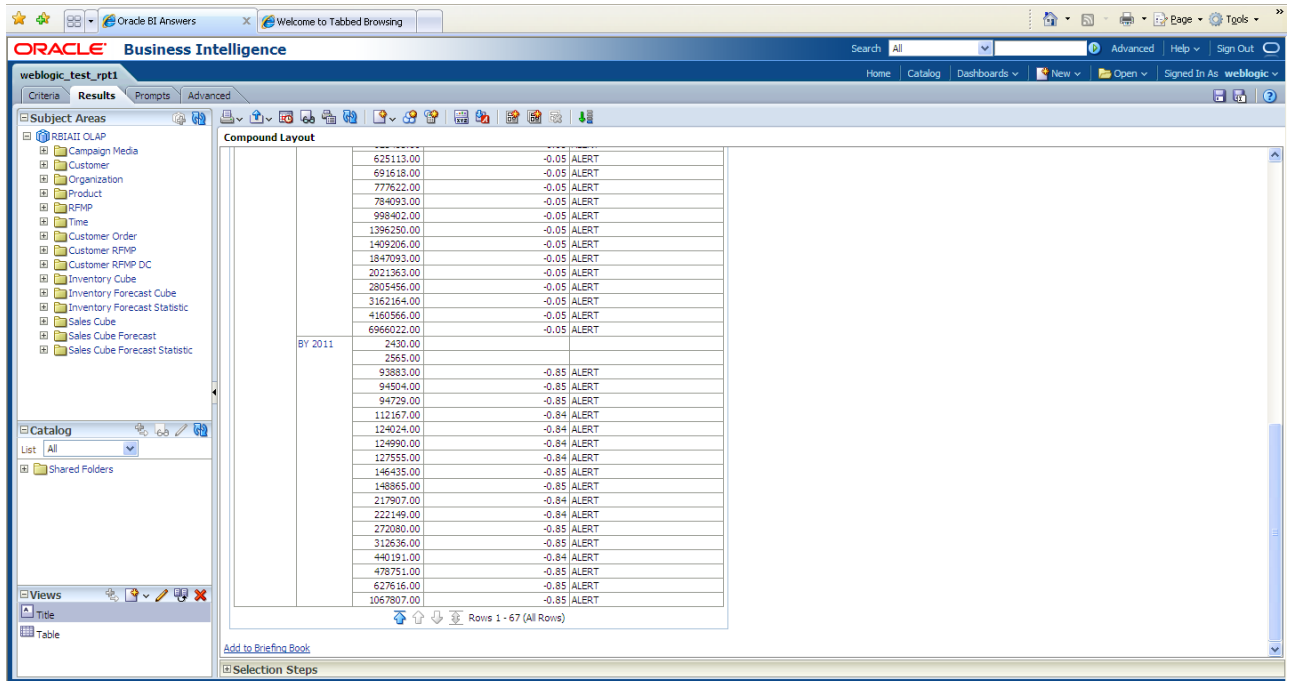


Figure A-26 WebLogic Test Results (continued)



License Information

Product	Licensing Description
Oracle Retail Data Model	<p data-bbox="532 722 1446 779">Oracle Retail Data Model is a pre-built approach to retail data warehousing enabling a retailer to realize the power of insight more quickly.</p> <p data-bbox="532 789 1052 816">Oracle Retail Data Model includes the following:</p> <ul data-bbox="532 827 1446 1083" style="list-style-type: none"><li data-bbox="532 827 1446 905">■ 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.<li data-bbox="532 915 1446 972">■ Automatic data movement (intra-ETL) to populate the dimensional models based on data from the foundation layer.<li data-bbox="532 982 1446 1039">■ Pre-defined data mining models for employee analysis, customer analysis, store analysis, item analysis, and product category mix analysis.<li data-bbox="532 1050 1019 1083">■ Pre-built sample reports and dashboards. <p data-bbox="532 1094 1446 1171">Prerequisites: Oracle Retail Data Model requires the use of other Oracle software, which must be licensed separately. Contact your Oracle sales representative for additional information.</p>

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