

# **Oracle® Revenue Management and Billing Analytics**

Version 2.8.0.0.0

## **Upgrade Guide**

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## Oracle Revenue Management and Billing Analytics Upgrade Guide

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# Preface

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## About This Document

This guide helps you to upgrade the Oracle Financial Services Revenue Management and Billing Analytics application from version 2.7.0.0.0 to 2.8.0.0.0.

## Intended Audience

This document is intended for the following audience:

- Administrators
- Development Team
- Consulting Team
- Implementation Team

## Organization of the Document

The information in this document is organized into the following sections:

Section No.	Section Name	Description
Section 1	Preparing for Upgrade	This section provides an overview of the upgrade process. It also lists the prerequisites for upgrading the application.
Section 2	ORMBA Database Component Upgrade	This section explains how to upgrade the database component of ORMBA.
Section 3	ORMBA Admin Tool Upgrade	This section explains how to upgrade the Admin Tool component of ORMBA.
Section 4	ORMBA ETL Component Upgrade	This section explains how to upgrade the ETL component of ORMBA.
Section 5	ORMBA Dashboard Component Upgrade	This section explains how to upgrade the Dashboard component of ORMBA.
Section 6	(Optional) ORMBA Modeling Configuration	This section explains how to upgrade the modeling configuration of ORMBA.
Appendix A	Known Issues	Lists the known issues in the upgrade pack.
Appendix B	Third Party Software Upgrade	Lists of third party software that needs to be upgraded before upgrading ORMBA.

## Related Documents

You can refer to the following documents for more information:

Document	Description
<i>Oracle Revenue Management and Billing Analytics Install Guide</i>	Describes how to install Oracle Revenue Management and Billing Analytics components

## Change Log

Revision	Last Update	Updated Section	Comments
1.0	January 2020	All	New upgrade guide for ORMBA (v2.7.0.0.0 to 2.8.0.0.0)

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# 1. Preparing for Upgrade

This document outlines the process to upgrade ORMBA installation from version 2.7.0.0.0 to 2.8.0.0.0.

Oracle Revenue Management and Billing Analytics upgrade involves upgrade of the following components:

- Star Schema Definitions
- ORMBA Admin Tool
- Extract, Transform and Load (ETL) process built on Oracle Data Integrator (ODI)
- Pre-built Analytics Dashboards based on Oracle Business Intelligence Enterprise Edition (OBIEE)
- Modeling or Simulation feature

**Note:** During the upgrade activity, ensure that there are no data changes in Source and Target databases of ORMBA.

## 1.1 Understanding ORMBA Upgrade Process

The ORMBA upgrade process involves the following high-level tasks:

1. Verifying the source and target system software versions
2. Downloading the upgrade pack
3. Performing the prerequisite tasks
4. Upgrading the Database component
5. Upgrading the Admin Tool component
6. Upgrading the ETL component
7. Upgrading the Dashboard component

## 1.2 Verifying Source and Target Software

In case of ORMBA upgrade from v2.7.0.0.0 to v2.8.0.0.0, there is a change in the source system versions supported.

### 1.2.1 Supported Source System Version

Source System	Version
Oracle Revenue Management and Billing (ORMB)	2.8.0.0.0
	2.7.0.1.0
	2.7.0.0.0

## 1.3 Downloading ORMBA Upgrade Pack

To download the ORMBA upgrade pack, follow the procedure below:

1. Go to My Oracle Support and open the Patches & Updates tab.
2. Search for patch **30805222** and download p30805222\_28000\_Linux-x86-64.zip file to your local machine.

**Note:** If you are upgrading ORMBA Insurance installation, search for patch **30805226** and download p30805226\_28000\_Linux-x86-64.zip file to your local machine.

3. Unzip p30805222\_23100\_Linux-x86-64.zip file.
4. Unzip ORMBA-V2.8.0.0.0-Upgrade.zip within it. The component folders within this folder are:
  - ORMBA-V2.8.0.0.0-Database
  - ORMBA-V2.8.0.0.0-ETL
  - ORMBA-V2.8.0.0.0-Web
  - ORMBA-V2.8.0.0.0-RM-Dashboards
  - ORMBA-V2.8.0.0.0-PM-Dashboards
  - ORMBA-V2.8.0.0.0-Ops-Dashboards
  - env\_verification.sh
  - Patch\_Info.txt
  - patch\_status\_update.sh
5. Copy each of the folders to respective servers as shown in the matrix below.

Unzipped Component Folders	Move to:
ORMBA- V2.8.0.0.0-Database	Database server
ORMBA- V2.8.0.0.0-ETL	Application server
ORMBA- V2.8.0.0.0-Web	Application server
ORMBA- V2.8.0.0.0-RM-Dashboards	Presentation server
ORMBA- V2.8.0.0.0-PM-Dashboards	Presentation server
ORMBA- V2.8.0.0.0-Ops-Dashboards	Presentation server

**Note:** Copy the files env\_verification.sh, Patch\_Info.txt, and patch\_status\_update.sh to the Database server.

6. Create a temporary directory named **TEMPDIR** on Database and Application servers and copy the following unzipped folders to the **TEMPDIR** directories within the respective servers:
  - ORMBA- V2.8.0.0.0-Database
  - ORMBA- V2.8.0.0.0-ETL
  - ORMBA- V2.8.0.0.0-Web
7. Create a temporary directory named **TEMPDIR\_DASH** on the presentation server.
8. Unzip the following folders:
  - ORMBA-V2.8.0.0.0-RM-Dashboards
  - ORMBA-V2.8.0.0.0-PM-Dashboards



- ORMBA-V2.8.0.0.0-Ops-Dashboards
9. Copy the subfolders within the component folders and paste them within the **TEMPDIR\_DASH** directory.
  10. If you are installing more than one workbench, copy the folders within the subsequent component folders and overwrite them in TEMPDIR\_DASH.

## 1.4 Performing Prerequisite Tasks

Before you begin ORMBA Upgrade process, perform the following tasks.

**Note:** During the upgrade activity, ensure that there are no data changes in Source and Target databases of ORMBA.

### 1.4.1 Verify Patch Installation

You can upgrade ORMBA 2.7.0.0.0 to 2.8.0.0.0 only after installing all the mandatory service packs released for ORMBA 2.7.0.0.0. To verify if all the service packs are installed, follow the procedure below:

1. In the database server (or where SQL Client is installed), navigate to the location where you have copied the `env_verification.sh` script.
2. Execute `env_verification.sh` script.

**Note:** You have to set `ORACLE_HOME` and `ORACLE_SID` variables before executing the script.

3. Verify if the verification process is successful.

**Important:** Proceed with upgrade process only if patch verification is successful.

### 1.4.2 Stop ODI Jobs

Before you begin the upgrade process, stop the scheduled execution of ODI package, `BM_RUN_ALL`. To do this, follow the procedure below:

1. Go to the Designer tab of ODI.
2. Open the ORMB Business Intelligence project.
3. Navigate to Configuration > Scheduler > Packages > `BM_RUN_ALL` > Scenarios > `BM_RUN_ALL Version 001` > Scheduling > `RMB1 / OracleDIAgent`.
4. Right-click **RMB1 / OracleDIAgent** and select Open.
5. Change the Status to **Inactive** and save the definition.

**Note:** If you have scheduled ETL jobs using an external scheduler, ensure that the scheduler job for `BM_RUN_ALL` package is stopped.

## 2. ORMBA Database Component Upgrade

This section explains how to upgrade the database component of ORMBA.

### 2.1 Upgrading Database Schema

While upgrading ORMBA database schema, the process upgrades the following schemas:

- DWADM
- REP
- MDADM
- MODELADM (For Banking only)
- ODI\_REPO (For Healthcare only)

**Note:** If ORMBA installation is in French, before connecting to SQL \* Plus, set NLS\_LANG parameter with a compatible character set. For example: **export NLS\_LANG=AMERICAN\_AMERICA.AL32UTF8**

To upgrade the database schema, follow the procedure below:

**Note:** Upgrading database schema does not affect the existing data in the system and the data will be intact.

1. Change to the <TEMPDIR>/ORMBA-2.8.0.0.0-Database directory.
2. Open the InstallSchemas.sql file and edit the following attributes:
  - i. Edit RELEASE\_PATH attribute as shown below:  
**define RELEASE\_PATH=<TEMPDIR>/ORMBA-2.8.0.0.0-Database**
  - ii. (Optional – In case of Healthcare) Edit ODI\_REPO attribute as shown below:  
**define ODI\_REPO='<ODI Repository Schema name>'**
  - iii. (Optional – In case of French) Edit LANGUAGE\_NAME attribute as shown below:  
**define LANGUAGE\_NAME='FRA'**
3. Open the postInstallationScript.sql file to edit the values in following code snippets:  
**define RELEASE\_PATH=<TEMP\_DIR>/ORMBA-V2.8.0.0.0-Database>**
4. Open the CheckInvalidObjects.sql file to edit the values in following code snippets:  
**define ODI\_REPO='<ODI Repository Schema name>'**
5. Log on to the pluggable database (PDB) in the target database server with MDADM credentials using SQL \*Plus.
6. Run the following commands to execute the scripts:  
**@InstallSchemas.sql**

**Note:** Spool the messages to a text file.

### 2.2 Enabling SSL

ORMBA dashboards and Admin tool in 2.8.0.0.0 version requires SSL enablement. Follow the process below to enable SSL for Admin server and BI server in OBIEE WebLogic console and for Admin server and ODI server in ODI Weblogic console.

1. Navigate to <Domain\_Home>/bin and open the file setDomainEnv.sh.

**Note:** <Domain\_Home> is the location where the Oracle Fusion Middleware domain is getting created. For example:

**OBIEE Domains:** /scratch/Oracle/Middleware/user\_projects/domains/bi

**ODI Domains:** /scratch/Oracle/Middleware/user\_projects/domains/ormba\_domain

2. To support TLSv1.2 Protocol, open the file setDomainEnv.sh and change `JAVA_PROPERTIES="-Dwls.home=${WLS_HOME} -Dweblogic.home=${WLS_HOME} "` into `JAVA_PROPERTIES="-Dweblogic.security.SSL.minimumProtocolVersion=TLSv1.2 -Dwls.home=${WLS_HOME} -Dweblogic.home=${WLS_HOME}"`
3. Log on to OBIEE Weblogic Console ([http://<host\\_name>:<port>/console](http://<host_name>:<port>/console)).
4. Navigate to Servers, select AdminServer and go to General tab.
5. Check the below check boxes:
  - i. SSL Listen Port Enabled
  - ii. Client Cert Proxy Enabled
6. If required, update the value in **SSL Listen Port** field and click Save.
7. Under the Advanced Option section in the General Tab, select **yes** in **WebLogic Plug-In Enabled** field and click Save.
8. Navigate to SSL Tab and under the Advanced Option, select **None** in **Hostname Verification** field. Click Save.
9. Repeat steps 4 to 8 for **bi\_server1**.
10. Stop AdminServer through Weblogic Administration Console.
11. Navigate to <DOMAIN\_HOME>/bitools/bin and run **stop.sh** file.
12. Repeat the steps 1 to 8 for ODI AdminServer and **odi\_server1** by logging on to ODI Weblogic Console.
13. Restart all servers that are updated.

## 3. ORMBA Admin Tool Upgrade

This section describes how to upgrade the Admin tool component of Oracle Revenue Management and Billing Analytics.

**Note:** Before proceeding with the Admin Tool installation, ensure that the WebLogic Admin server is up and running in application server.

### 3.1 Deploying Admin Tool EAR

For re-deploying the Admin tool, follow the procedure below:

**Note:** Check if you have 'Execute' privilege to deploy.sh script and if not provide the privileges.

1. Navigate to <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/admintool folder.
2. Open the deploy\_configuration.properties file and edit the following attribute:  
**domain.name=ormba\_domain**  
**admin.url=<Weblogic console URL> Eg: t3://localhost:7001**  
**admin.userName=<weblogic username>**  
**admin.password=<weblogic password>**  
**target.server=<datasource.target parameter in datasource.properties file> Eg: ODI\_server1**  
**file.location=.**  
**file.name=ormba-admin.ear**  
**application.name=ormba-admin**  
**redeploy=Y**
3. Go to <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/admintool folder.
4. Execute **deploy.sh** in application server with <FMW\_HOME>/wlserver/server/bin as argument.

**Note:** If you are upgrading ORMBA in French, navigate to <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/admintool-french folder and follow the above procedure.

**Note:** For more information on how to create users and roles in Admin tool, refer to the *Oracle Revenue Management and Billing Analytics Security Guide*.

### 3.2 Deploying Admin Tool Online Help EAR

For re-deploying the Admin tool Online Help, follow the procedure below:

**Note:** Check if you have 'Execute' privilege to deploy.sh script and if not provide the privileges.

1. Navigate to <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/admintool folder.
2. Open the deploy\_configuration.properties file and edit the following attribute:  
**domain.name=ormba\_domain**  
**admin.url=<Weblogic Console URL> Eg: t3://localhost:7001**  
**admin.userName=<Weblogic username>**  
**admin.password=<Weblogic password>**  
**target.server=<datasource.target parameter in datasource.properties file> Eg: ODI\_server1**  
**file.location=.**

**file.name=ormba-help.ear**

**application.name=ormba-help**

**redeploy=Y**

3. Go to <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/admintool folder.

4. Execute **deploy.sh** in application server with **<FMW\_HOME>/wlserver/server/bin** as argument.

### 3.3 Un-deploying Modeling Service

1. Log on to Enterprise Manager with Administrator credentials.
2. Under Target Navigation, WebLogic Domain section, right click on the domain **ormba\_domain** and select Deployments option.
3. In the Change Center, click on **Lock & Edit** option to open a new session.
4. Under the Deployments section, select **ORMBA-Modelling** and click **Undeploy**. The 'Un-deployment Succeeded' pop-up appears.
5. Close the pop-up window and navigate to the Deployments list page.
6. Click on **Activate Changes** option in the Change Center for the deployment changes to be effective.

### 3.4 Deleting Data Source

1. Log on to Enterprise Manager with Administrator credentials.
2. Under Target Navigation, WebLogic Domain section, right click on the domain **ormba\_domain** and select **JDBC Data Sources** option.
3. In the Change Center, click on **Lock & Edit** option to open a new session.
4. Under the JDBC Data Sources section, select **ORMBA\_DWADM\_Connection** and click Delete button.

**Note:** Repeat this step for **ORMBA\_MODELADM\_Connection** and **ORMBA\_RMB1REP\_Connection**.

5. Click on **Activate Changes** option in the Change Center for the JDBC datasource changes to be effective.


### 3.5 Configuring Admin Tool Security

To configure Admin Tool security, follow the procedure below:

1. Log on to Enterprise Manager.
2. Right-click on the **ormba\_domain** node. A shortcut menu appears.
3. Select the **Application Roles** option from the Security sub-menu. The Application Roles page appears on the right pane.
4. Select the **ormba-admin** option from the Application Stripe list and click the **Search** button near the **Role Name** field.
5. Select the required role and then click **Edit**.
6. Add members to the application role and then click **OK**.

### 3.6 Post Deployment Verification

To check if the Admin tool EAR is successfully deployed, follow the procedure below:

1. Log on to Enterprise Manager.
2. Go to Application Deployments.
3. Check if **ormba-admin** and **ormba-help** are available.
4. Try to access ORMBA Administration UI using the URL, <https://<hostname>:<port>/ormba> where <port> is the Listen Port of the managed server.
5. Log on using WebLogic admin user credentials. If you are able to log on, the deployment of Admin tool EAR was successful.
6. Open a page in Admin tool and click the Help icon () available near the page title. If you are able to view the Help page, the deployment of Admin Tool Online Help was successful.

## 4. ORMBA ETL Component Upgrade

This section describes how to upgrade the ETL component and includes the following tasks:

### 4.1 Editing ORMBA.PROPERTIES File

1. Change to the <TEMPDIR>/ORMBA-2.8.0.0.0-ETL/bin directory, where <TEMPDIR> folder is the location where you have extracted the contents of the upgrade pack.
2. Open the **ormba.properties** file and edit the attributes by following the guidelines given in the file against each attribute, or refer to the properties file used during ORMBA 2.7.0.0.0 installation.

**Note:** If your source system operating system is Windows, while updating the path variables, replace ‘\’ by ‘\\’.

3. Edit `ormba.project.path` attribute to <TEMPDIR>/ORMBA-2.8.0.0.0-ETL/ETLComps, where <TEMPDIR> folder is the location where you have extracted the contents of the upgrade pack.
4. Edit `ormba.ggscrip.location` attribute to a different location from that of 2.7.0.0.0 installation to avoid overwrite.
5. Save the file after updating the attributes.

#### 4.1.1 Validating ORMBA.PROPERTIES File

To validate the properties configured in ORMBA.PROPERTIES file, follow the procedure below:

**Note:** Before proceeding with the procedure below, ensure that you have ‘Execute’ privileges for the script **runPropertyValidator.sh** and the managed server (ODI\_server1) is up and running.

1. Navigate to the location: <TEMPDIR>/ORMBA-2.8.0.0.0-ETL/bin, where <TEMPDIR> is the folder where you have extracted the upgrade pack.
2. Execute the script **runPropertyValidator.sh** from the terminal. This validates the properties in the file.
3. If validation of a property fails, it prints a ‘failed’ message with the property key(s) that failed during testing. You can then edit the ORMBA.PROPERTIES file to correct the errors and proceed with the validation again.
4. Repeat the procedure until you see no ‘failed’ messages.

**Important:** DO NOT proceed with ETL upgrade without resolving the errors in the ORMBA.PROPERTIES file validation.

## 4.2 Upgrading the ETL Component

ETL Component upgrade involves execution of the `upgradeETLComps.sh` shell script.

### 4.2.1 Prerequisites

Before proceeding with the execution of ETL component upgrade scripts, check the following:

1. Check if you have 'Execute' privileges for each of the above listed shell scripts.
2. Check if the Managed server (ODI\_server1) is up and running.

### 4.2.2 Executing `upgradeETLComps.sh`

**Purpose:** This shell script imports all necessary ETL Components to the upgrade environment.

**Prerequisite:** Check if the `ormba.project.path` parameter in `ormba.properties` file is correctly configured, and the path (`<TEMPDIR>/ORMBA-2.8.0.0.0-ETL/ETLComps`) contains the ETL components for import from the upgrade pack.

**Success Criterion:** Check the log for success message.

**Errors:** In case of errors, rectify the error and re-run the script. For example, if the project or model gets partially imported due to insufficient disk space, log on to ODI Studio, delete the partial import and re run the script.

**Note:** If you see error "ODI-14206: Import failed due to unable to delete unneeded objects in target repository." while executing `upgradeETLComps.sh` file, follow article [2314275.1](#) in My Oracle Support.

### 4.2.3 (Optional) Upgrading Knowledge Modules

**Note:** Follow this procedure if you are trying to upgrade ORMBA Healthcare / Insurance installation.

1. In ODI, navigate to Designer > RMBBI\_Automation > Knowledge Modules > Journalizing (JKM) and perform the following steps:
  - i. Right click on **JKM BI Oracle to Oracle(OGG)** and select **Import Replace** option.
  - ii. In the Replace Object pop-up window, select the file **KM\_JKM\_BI\_Oracle\_to\_Oracle\_OGG.xml** from the location: `ORMBA-V2.8.0.0.0.Insurance-ETL\ETLComps\projects\RMBBI_Automation\KM\JKM`
2. In ODI, navigate to Designer > ORMB Business Intelligence > Knowledge Modules > Integration (IKM) and perform the following steps:
  - i. Right click on **IKM BI Dimension Load (SCD-I)** and select Import Replace option.
  - ii. In the Replace Object pop-up window, select the file **KM\_IKM\_BI\_Dimension\_Load\_\_SCD\_I.xml** from the location: `ORMBA-V2.8.0.0.0.Insurance-ETL\ETLComps\projects\ORMB_Business_Intelligence\KM\IKM`
  - iii. Right click on **IKM BI Dimension Load (SCD-II)** and select Import Replace option.
  - iv. In the Replace Object pop-up window, select the file **KM\_IKM\_BI\_Dimension\_Load\_\_SCD\_II.xml** from the location: `ORMBA-V2.8.0.0.0.Insurance-ETL\ETLComps\projects\ORMB_Business_Intelligence\KM\IKM`
  - v. Right click on **IKM BI MERGE** and select Import Replace option.
  - vi. In the Replace Object pop-up window, select the file **KM\_IKM\_BI\_Merge.xml** from the location: `ORMBA-V2.8.0.0.0.Insurance-ETL\ETLComps\projects\ORMB_Business_Intelligence\KM\IKM`



- vii. Right click on **IKM Append Parallel** and select **Import Replace** option.
  - viii. In the Replace Object pop-up window, select the file **KM\_IKM\_BI\_Append\_Parallel.xml** from the location: **ORMBA-V2.8.0.0.0.Insurance-ETL\ETLComps\projects\ORMB\_Business\_Intelligence\KM\IKM**
3. From ODI Studio, regenerate all scenarios for Dimensions and Facts in the project **ORMB Business Intelligence**.
  4. From ODI Studio, regenerate **BM\_RUN\_ALL Version 001** scenario from the folder: **ORMB Business Intelligence > Configuration > Scheduler > Packages > BM\_RUN\_ALL > Scenarios**
  5. From ODI Studio, regenerate **BM\_RUN\_ALL\_READY\_JOBS Version 001** scenario from the folder: **ORMB Business Intelligence > Configuration > Scheduler > Packages > BM\_RUN\_ALL\_READY\_JOBS > Scenarios**
  6. From ODI Studio, regenerate all scenarios for Replication folders in the project **RMBBI\_Automation**.

## 4.3 (Optional) Upgrading ETL if ODI is in Execution Mode

If you are upgrading an ORMBA environment where ODI is in Execution mode, skip the normal ETL installation steps and follow the procedure below.

### 4.3.1 Generating and Exporting ODI scenarios

As the first step of ETL upgrade, you need to generate ODI scenarios from the environment where ODI is in Development mode. To do this, follow the below procedure in the environment where ODI is in Development mode:

1. Navigate to path: **<TEMPDIR>/ORMBA-V2.8.0.0.0.Insurance-ETL/bin** and edit the file **ormba\_prod.properties** with the values of the environment in EXECUTION mode, where **<TEMPDIR>** is the location where you have downloaded the upgrade pack.
2. To generate JRN start scripts, execute **generateJRNStartScenarios.sh** script found in the path: **<TEMPDIR>/ORMBA-V2.8.0.0.0.Insurance-ETL/bin** using the execution command: **generateJRNStartScenarios.sh MODEL=ALL**
3. To generate JRN stop scripts, execute **generateJRNStopScenarios.sh** script found in the path: **<TEMPDIR>/ORMBA-V2.8.0.0.0.Insurance-ETL/bin** using the execution command: **generateJRNStopScenarios.sh CLEAN=I1BL,I1CM1** where **I1BL** and **I1CM1** are models that require clean up.

**Note:** Instead of CLEAN command, you can use CLEANSERVICE to generate GG scripts for stopping a model. E.g.: **generateJRNStopScenarios.sh CLEANSERVICE= I1BL,I1CM1**

4. Export all ODI scenarios by following the procedure below:
  - i. Open ODI Studio and navigate to Designer tab > Projects > ORMB Business Intelligence, right click and select **Export All Scenarios** option.
  - ii. In the Export Directory field, enter the path to the folder where you want to export scenarios and select **Packages** under Objects to Export option.
  - iii. Click OK and repeat the above procedure for **RMBBI\_Automation** project.

## 4.3.2 Importing ODI Scenarios

Prior to proceeding with ETL component upgrade in an environment running in Execution mode, you need to import ODI scenarios exported from the environment running in Development mode. To do this, follow the procedure below in the environment where ODI is in Execution mode:

**Note:** If you have not exported ODI scenarios from the environment where ODI is in Development mode, you can do this by following instructions available in section [4.3.1](#).

1. Open ODI Studio and navigate to Operator tab > Load Plans and Scenarios.
2. Select Import Scenario option.
3. In the Import Scenario (XML File) pop up window, select **Synonym Mode INSERT\_UPDATE** in Import Type field and enter the path to the folder where you have exported scenarios from (i.e., the environment running in Development mode) in the File import directory field.
4. Click OK. This imports the ODI scenarios into the environment.

## 4.4 Post Upgrade Tasks

### 4.4.1 Database Verification

1. Change to the <TEMPDIR>/ORMBA-2.8.0.0.0-Database directory.
2. Open the postInstallationScript.sql file to edit the values in following code snippets:
 

```
define RELEASE_PATH=<TEMP_DIR>/ORMBA-V2.8.0.0.0-Database>
define ODI_REPO='<ODI Repository Schema name>'
```
3. Open the CheckInvalidObjects.sql file to edit the values in following code snippets:
 

```
define ODI_REPO='<ODI Repository Schema name>'
```
4. Log on to the pluggable database (PDB) in the target database server with MDADM credentials using SQL \*Plus.
5. Run the following commands to execute the scripts:
 

```
@postInstallationScript.sql
@CheckInvalidObjects.sql
```
6. Execute **patch\_status\_update.sh** script in database server (or where SQL Client is installed). The script is available in the Upgrade pack zip file itself.

### 4.4.2 ORMBA Admin Tool Settings

Log on to ORMBA Admin tool, navigate to the pages listed below, and verify whether the listed attributes are configured.

**Note:** Some of the attributes listed here are optional or implementation-specific.

Page	Attribute
Global Settings	<ul style="list-style-type: none"> <li>• Date from which all ETL jobs will be configured to end the initial load</li> </ul>

Page	Attribute
Source Instance	<ul style="list-style-type: none"><li>• Date from which all ETL jobs for the specific product instance will be configured to start the initial load</li><li>• Date from which all ETL jobs for the specific product instance will be configured to end the initial load</li></ul>

### 4.4.3 Loading Data to Warehouse

Once ETL upgrade is complete, the data from source system is available in the replication layer. To move data from the replication layer to the data warehouse, you need to execute ETL jobs that are available in ODI. To begin the execution of ETL jobs, re-activate the schedule for `BM_RUN_ALL_READY_JOBS` package in ODI by changing the status of the schedule to **Active**.

**Note:** If you are using ODI in Execution mode, execute the scenario `BM_RUN_ALL_READY_JOBS Version 001` in the path: Operator > Load Plans and Scenarios.

**Note:** If ODI mappings in the project are modified as part of customization, delete the existing scenarios in the edited package instead of regenerating. Refer to knowledge article 2340050.1 to know more about this issue and its fix.

## 5. ORMBA Dashboard Component Upgrade

This section describes how to install the dashboard component of Oracle Revenue Management and Billing Analytics.

**Note:** In this chapter, <TEMPDIR\_DASH> refers to the folder in presentation server where you have extracted the folders within the respective dashboard component.

### 5.1 Updating DB Connection Properties in RPD

The RPD file available within the Dashboard component holds the metadata for OBIEE. As part of installation, you need to update the database connection details in this RPD file by following the procedure below:

1. Open the Oracle BI Administrator Tool from your local Windows machine.
2. In the OBI Administrator Tool, navigate to <TEMPDIR\_DASH>/RPD folder and open the **ORMBA2.8.0.0.0.rpd** file in offline mode.
3. When prompted, enter the Repository Password available in the **ReadMe.txt** file in the **RPD** folder. This opens the RPD as shown in the image below:

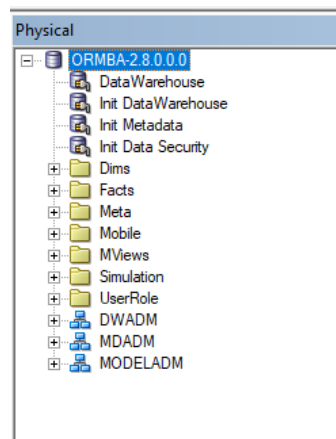
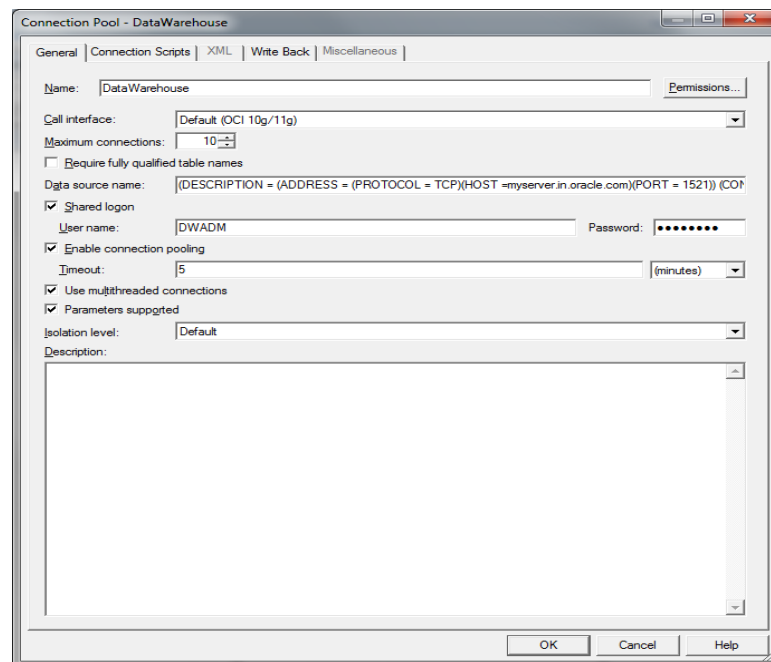


Figure 1: Oracle BI Administrator Tool

4. In the Physical pane, double-click the **DataWarehouse** connection pool under the **ORMBA-2.8.0.0.0** node. The Connection Pool – DataWarehouse window appears as shown below:




**Figure 2: Connection Pool – DataWarehouse Window**

5. Update the connection details to the DWADM schema.
  - Update the connection properties in the **Data source name** field. For example, (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST = mum00abn.in.oracle.com)(PORT = 1521)) (CONNECT\_DATA = (SERVICE\_NAME = pdborcl)))
  - Update the DWADM schema password in the Password field.
6. Repeat steps 4 and 5 to update the connection details to DWADM schema in **Init Data Warehouse** connection pool.
7. Repeat steps 4 and 5 to update the connection details to MDADM schema in **Init Metadata** and **Init Data Security** connection pools.
8. Save the changes made to the **ORMBA2.8.0.0.0.rpd** file.
9. Use the updated ORMBA2.8.0.0.0.rpd file to deploy on OBIEE server.

## 5.2 Importing Skins and Deploying in WebLogic

The Dashboard Component of media pack contains custom styles and skins for ORMBA dashboards. Perform the steps below to copy those custom styles and skins to respective OBIEE directory for custom files and deploy them in OBIEE WebLogic Server.

### 5.2.1 Deploying analyticsRes.war

1. Go to Enterprise Manager Console (<hostname>:<port>/em) in the presentation server and log on with administrator credentials.
2. Under Target Navigation, go to Weblogic Domain > bi > bi\_cluster.
3. Click on the Deployments tile on the left pane.
4. Click on the lock icon (  ) and select **Lock & Edit** option to open a new session.
5. Under the Deployments section, select the application **analyticsRes** and choose Deployment > Undeploy option.

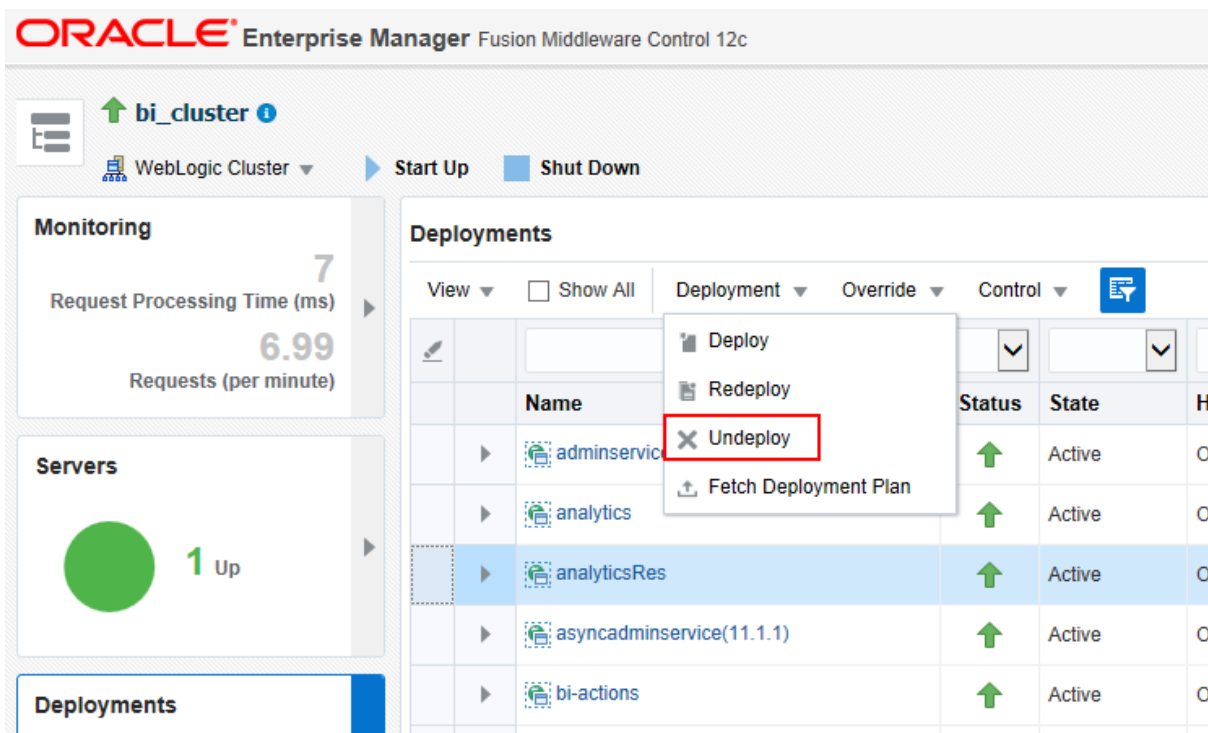


Figure 3: Undeploy Option

6. In the subsequent page, click Undeploy button again. If un-deployed successfully, the 'Undeployment Succeeded' pop-up appears.
7. Click on the lock icon (🔒) and select **Activate Changes** option so that the deployment changes are effective.
8. Click on the Deployments tile on the left pane.
9. Click on the lock icon (🔒) and select **Lock & Edit** option to open a new session.
10. Under the Deployments section, select Deployment > Deploy option. This opens the application deployment wizard.
11. Click Next.
12. Under the 'Archive or Exploded Directory' section, click Browse and select the **analyticsRes.war** file in the folder: <TEMPDIR\_DASH>/PRESENTATION\_COMPONENT.
13. Select the first option under Deployment Plan and Deployment Type sections as shown in the image below.

**Deployment Plan**

The deployment plan is a file that contains the deployment settings for an application. You can use a previously saved deployment plan. If you do not have a deployment plan, one will be created automatically during the deployment process when deployment configuration is done.

Create a new deployment plan when deployment configuration is done.  
 Deployment plan is on the machine where this Web browser is running.

No file selected.

Deployment plan is on the server where Enterprise Manager is running.


---

**Deployment Type**

The archive or exploded directory can be deployed as a regular application or a library. Application libraries are deployments that are av option will be set as library automatically when you deploy a library file (Jar file).

Deploy this archive or exploded directory as an application  
 Deploy this archive or exploded directory as a library

Figure 4: Deployment Plan and Deployment Type

14. Click Next.
15. Select **bi\_cluster** and within it, select **All configured Servers in this cluster** option.
16. Click Next.
17. Click Next again and move to the last step of the wizard.
18. Click Deploy to deploy the application. If deployed successfully, the 'Deployment Succeeded' pop-up appears.
19. Click Close and close the pop-up window.
20. Click on the lock icon (  ) and select **Activate Changes** option so that the deployment changes are effective.
21. Click on the Deployments tile on the left pane.
22. From the Deployments list, select **analyticsRes** and click Control > Start > Servicing all requests to start the application. The state of the application now changes to Active.

## 5.3 Deploying the BAR File

1. In the presentation server, move to the path: <OBIEE\_HOME>/oracle\_common/common/bin in the terminal.
2. Run the shell **./wlst.sh**. This opens the WebLogic Server Administration Scripting Shell.

**Note:** Check to see if you have 'Execute' privilege for wlst.sh and if not, provide the privileges.

3. Run the command below:

```
importServiceInstance('<OBIEE_HOME>/user_projects/domains/bi','ssi','<TEMPDIR_DASH>/BAR/ssi.bar',false)
```

**Note:** Replace the values for <OBIEE\_HOME> and <TEMPDIR\_DASH> in the above command.

4. Wait for a few minutes for the import to complete. Once done, the terminal returns to the shell with 'Successfully imported' message.
5. Enter **exit()** to quit the shell.
6. Restart OBIEE server using the stop and start shell scripts available at the path: <OBIEE\_HOME>/user\_projects/domains/bi/bitools/bin
  - Run **./stop.sh** to stop the server (if already running), and
  - Run **./start.sh** to start the server again

## 5.4 Deploying the RPD File

For deploying RPD, follow the procedure below:

1. Open a terminal in the presentation server.
2. Move to the folder: <OBIEE\_HOME>/user\_projects/domains/bi/bitools/bin
3. Run the command below after replacing <adminUser> with the respective BI Administrator username:

```
sh datamodel.sh uploadrpd -I <TEMPDIR_DASH>/RPD/ORMBA2.8.0.0.0.rpd -SI ssi -U <adminUser>
```

**Note:** The RPD file referred here is the one updated to change the data source, as explained in section [5.1](#).

4. When prompted, enter the RPD password and WebLogic Admin user's password.

**Note:** You can find the RPD password in the ReadMe.txt file within the RPD folder.

5. Wait for a few minutes and you will see the 'RPD upload completed successfully' message.

## 5.5 Configuring Security

After upgrade process, you need to re-create the roles (both pre-defined and custom) in WebLogic. Once the roles are created, you need to re-create the users and map them to the required application roles. To know more about this, see ORMBA Security Guide and ORMBA Admin Guide.

## 5.6 Applying Licenses

ORMBA Dashboards are available as three software licenses and purchase of each license entitles access to a specific set of dashboards. On logging on to the dashboards, you should apply the license key(s) for the product(s) you purchased to ensure access to the respective dashboards.

For detailed instructions on how to apply the license key(s), follow the instructions in ORMBA Admin Guide.



## 6. (Optional) Upgrading ORMBA Modeling

Perform the following additional tasks if you use modeling feature.

**Note:** Copy the folder <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/service to the presentation server. In case of French installation, copy the folder **service-french** in the same location.

### 6.1 Configuring Modeling Data Source

To configure the data source, follow the procedure below:

**Note:** Before proceeding with the procedure below, check if you have 'Execute' privileges for configureDS.sh script.

1. Open `datasource.properties` in the <TEMPDIR>/ORMBA-V2.8.0.0.0-Web/config/datasource folder.

2. Edit the `datasource.properties` file with the below parameters:

**admin.url=<Weblogic console URL> Eg: t3://localhost:9500**

**admin.userName=<weblogic Admin user in presentation server>**

**admin.password=<weblogic Password>**

**datasource.name=<Any name for the new datasource> Eg: ORMBA\_DWADM\_Connection**

**datasource.target=<Weblogic server on which Modeling EAR is to be deployed> Eg: bi\_server1**

**datasource.jndiname=ormba-DWADMDS**

**datasource.url=<Database url> Eg: jdbc:oracle:thin:@server:port/servicename**

**datasource.username=DWADM**

**datasource.password=Password for DWADM**

**Note:** While mentioning the Weblogic console URL, provide the non-SSL port.

3. Execute `configureDS.sh` in your presentation server with <WLS\_HOME>/server/bin as argument, where <WLS\_HOME> is <FMW\_HOME>/wlserver.

4. After successful execution of the script, edit the following attributes within the same `datasource.properties` file:

**datasource.name=<Any name for the new datasource> Eg: ORMBA\_MODELADM\_Connection**

**datasource.jndiname=ormba-MODELADMDS**

**datasource.url=<Database url> Eg: jdbc:oracle:thin:@server:port/servicename**

**datasource.username=MODELADM**

**datasource.password=<Password for MODELADM>**

5. Execute `configureDS.sh` in your presentation server with <FMW\_HOME>/wlserver/server/bin as argument.

6. If you want to deploy Apply Back service, edit the following attributes within the same `datasource.properties` file:

**datasource.name=<Any name for the new datasource> Eg: ORMBA\_RMB1REP\_Connection**

**datasource.jndiname=jdbc/ormba-RMB1REPDS**

**datasource.url=<Database url> Eg: jdbc:oracle:thin:@server:port/servicename**

**datasource.username=RMB1REP**

**datasource.password=<Password for RMB1REP>**

- Execute `configureDS.sh` in your presentation server with `<FMW_HOME>/wlsserver/server/bin` as argument.

**Note:** By default, the Maximum Capacity of Connection Pool is set to 15 for the newly created datasource. You can update this property to a desired value in WebLogic Server Administration console, based on the number of users expected to access the system.

## 6.2 Upgrading Modeling Schema

If you have purchased license for Product Manager's Workbench or Relationship Manager's Workbench, you need to upgrade the modeling schema – **MODELADM** by following the procedure below:

- Connect to the database using any SQL client (such as SQL\*Plus) with **MODELADM** credentials.
- Open the **InstallMODELADM.sql** file in `<TEMPDIR>/ORMBA-2.8.0.0.0-Database/MODELADM` and edit the release path in the following code snippet:  

```
define RELEASE_PATH=path upto <TEMPDIR>/ORMBA-2.8.0.0.0-Database
```
- Log on to the pluggable database (PDB) in the target database server with MODELADM credentials using SQL \*Plus.
- Execute `InstallMODELADM.sql` and `postInstallationMODELADM.sql` scripts.
- To check for invalid objects in MODELADM schema, log on to the pluggable database (PDB) in the target database server with MDADM credentials using SQL \*Plus and execute `CheckModeladminInvalidObjects.sql` in `<TEMPDIR>/ORMBA-2.8.0.0.0-Database/MODELADM` folder.

## 6.3 Deploying Modeling Service

For deploying the modeling service, follow the procedure below:

**Note:** Before proceeding with the procedure below, ensure that you have 'Execute' privileges for `deploy.sh` script.

- Open the `deploy_configuration.properties` file in `<TEMPDIR>/ORMBA-V2.8.0.0.0-Web/service` folder and edit the attributes as shown below:  

```
domain.name=bi
admin.url=<Weblogic console URL> Eg: t3://localhost:9500
admin.userName=<weblogic UserName>
admin.password=<weblogic Password>
target.server=<Weblogic server or cluster on which Modeling EAR is to be deployed> Eg:
bi_server1
file.location=.
file.name=ORMBA-Modelling.ear
application.name=ORMBA-Modelling
```

**Note:** While mentioning the Weblogic console URL, provide the non-SSL port.

- Go to the folder `<TEMPDIR>/ORMBA-V2.8.0.0.0-Web/service` and execute the shell `deploy.sh` with `<FMW_HOME>/wlsserver/server/bin` as argument.

**Note:** If you are installing ORMBA in French, follow the above procedure by navigating to `<TEMPDIR>/ORMBA-V2.8.0.0.0-Web/service-french` folder instead.

## 6.4 Setting Modeling Parameters

To enable Modeling (Simulation) feature after upgrade process, you must alter the default global settings in Admin Tool.

1. Log on to Admin tool as a user with either GlobalSettingRole or ORMBA\_AdminRole role.
2. Navigate to the Global Settings page.
3. Edit the value of parameter 'End point of simulation webservice'. Webservice endpoint URL format is `https://<server>:<port>/ormbas/resources` where <server> is the server on which the modeling service was deployed and <port> is the SSL port. For more information, see Configuring Data Source.
4. If you are using ORMB pricing services for simulation, perform the following tasks:
  - i. Navigate to Global Settings page and edit the value of parameter 'Invoke external webservice for pricing' and change it to 'Y'.
  - ii. Navigate to the Source Instance page and edit the value of parameter 'ORMB webservice end point'. Webservice endpoint URL format is `https://<server>:<port>/ouaf` where <server> is the server on which ORMB application is deployed.

## 6.5 Updating Weblogic Credential Map

To update Weblogic Credential Map with ORMB login details, follow the procedure below:

1. Navigate to <TEMPDIR>/ORMBA-V2.8.0.0-Web folder.
2. Open the credential\_map.properties file and edit the following attributes:  
**weblogic.admin.url=<Weblogic connection url> E.g. t3://localhost:9500**  
**weblogic.admin.userName=<Weblogic Admin Username> E.g. weblogic**  
**ormb.username=<ORMB Application Username> E.g. sysuser**
3. Save the credential\_map.properties file.
4. Execute the shell create\_credential\_map.sh with <FMW\_HOME>/wlserver/ as argument.

Note: While executing the shell, you will see prompts like "Enter the Weblogic Admin Password" and "Enter the ORMB User Password", to which you can provide the Weblogic password and password for the ORMB User respectively.

## **Appendix A : Known Issues**

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ORMBA upgrade from 2.7.0.0.0 to 2.8.0.0.0 has no known issues.

## **Appendix B : Third Party Software Upgrade**

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ORMBA upgrade from 2.7.0.0.0 to 2.8.0.0.0 requires no third party software upgrade.