

Oracle Utilities Analytics

Installation Guide

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Oracle Utilities Analytics Installation Guide, Release 2.5.1

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Preface

This guide describes how to install and configure Oracle Utilities Extractors and Schema and Oracle Utilities Analytics Dashboards v2.5.1, including:

- **Audience**
- **Prerequisite Knowledge**
- **Related Documents**
- **Conventions**
- **Acronyms**

Audience

This guide is intended for anyone interested in the process of installing, upgrading, or configuring Oracle Utilities Extractors and Schema and Oracle Utilities Analytics Dashboards v2.5.1.

Prerequisite Knowledge

Oracle Utilities Extractors and Schema and Oracle Utilities Analytics Dashboards use several technologies. You should have knowledge of the following before configuring and administering Oracle Utilities Analytics:

- Oracle Data Warehouse concepts:
http://docs.oracle.com/cd/E11882_01/server.112/e25554/toc.htm
- Oracle Warehouse Builder:
http://docs.oracle.com/cd/E11882_01/owb.112/e10581/toc.htm
- Oracle Data Integrator:
http://docs.oracle.com/cd/E21764_01/integrate.1111/e12641/overview.htm
- Oracle GoldenGate:
http://docs.oracle.com/cd/E35209_01/doc.1121/e29397.pdf
- Oracle WebLogic Server:
http://docs.oracle.com/cd/E15051_01/wls/docs103/pdf.html
- Oracle Business Intelligence Enterprise Edition:
http://docs.oracle.com/cd/E28280_01/bi.1111/e10544/toc.htm

Related Documents

For more information, refer to the following documents in the Oracle Utilities Analytics documentation library:

- *Oracle Utilities Analytics User's Guide*
- *Oracle Utilities Analytics Administration Guide*
- *Oracle Utilities Analytics Quick Install Guide*
- *Oracle Utilities Analytics Release Notes*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Meter Data Analytics Metric Reference Guide*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Customer Analytics, Revenue Analytics, and Credit & Collections Analytics Metric Reference Guide*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Exception Analytics Metric Reference Guide*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Mobile Workforce Analytics Metric Reference Guide*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Distribution Analytics and Outage Analytics Metric Reference Guide*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Work and Asset Analytics Metric Reference Guide*
- *Oracle Utilities Analytics Dashboards for Oracle Utilities Operational Device Analytics Metric Reference Guide*
- *Oracle Utilities Extractors and Schema for Oracle Utilities Customer Care and Billing Data Mapping Guide*
- *Oracle Utilities Extractors and Schema for Oracle Utilities Meter Data Management Data Mapping Guide*
- *Oracle Utilities Extractors and Schema for Oracle Utilities Mobile Workforce Management Data Mapping Guide*
- *Oracle Utilities Extractors and Schema for Oracle Utilities Network Management System Data Mapping Guide*
- *Oracle Utilities Extractors and Schema for Oracle Utilities Operational Device Management Data Mapping Guide*
- *Oracle Utilities Extractors and Schema for Oracle Utilities Work & Asset Management Data Mapping Guide*

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.

Acronyms

The list of acronyms used in this guide is as explained below:

- **APEX**: Oracle Application Express
- **CC&B**: Oracle Utilities Customer Care and Billing
- **CDC**: Changed Data Capture
- **ELT**: Extraction, Loading and Transformation
- **ETL**: Extraction, Transformation, and Loading
- **MDM**: Oracle Utilities Meter Data Management
- **MWM**: Oracle Utilities Mobile Workforce Management
- **NMS**: Oracle Utilities Network Management System
- **OBIEE**: Oracle Business Intelligence Enterprise Edition
- **ODI**: Oracle Data Integrator
- **ODM**: Oracle Utilities Operational Device Management
- **OGG**: Oracle GoldenGate
- **OUA**: Oracle Utilities Analytics
- **OWB**: Oracle Warehouse Builder
- **WAM**: Oracle Utilities Work and Asset Management

Chapter 1

Introduction

This chapter provides an overview of the installation of Oracle Utilities Analytics. This includes:

- **About Oracle Utilities Extractors and Schema and Oracle Utilities Analytics Dashboards**
- **About Oracle Utilities Analytics Installation**
- **What's New in Oracle Utilities Analytics v2.5.1**

About Oracle Utilities Extractors and Schema and Oracle Utilities Analytics Dashboards

Oracle Utilities Extractors and Schema provides out of the box extraction and transformation, and loads data from the source application to the data warehouse. Oracle Warehouse Builder is used to validate and load the data to the data warehouse.

The extraction, transformation and load processes have started to move to Oracle GoldenGate (OGG) and Oracle Data Integrator (ODI) in the last few releases. Over the next few releases, all the old extractors will move from Oracle Warehouse Builder to Oracle Data Integrator.

As of now, the following products support Oracle GoldenGate and Oracle Data Integrator based Extract, Load and Transform (ELT):

- Oracle Utilities Network Management System (NMS)
- Oracle Utilities Customer Care & Billing (CCB)
- Oracle Utilities Operational Device Management (ODM)

The following products use Oracle Warehouse Builder based Extract, Transform and Load (ETL):

- Oracle Utilities Work and Asset Management (WAM)
- Oracle Utilities Meter Data Management (MDM)
- Oracle Utilities Mobile Workforce Management (MWM)

Oracle Utilities Analytics Dashboards provides out of the box reports based on Oracle Business Intelligence Enterprise Edition.

Note: Refer to *Oracle Utilities Analytics Metric Reference Guides* for comprehensive list of all the reports.

This guide helps you install, upgrade, configure Oracle Utilities Extractors and Schema and Oracle Utilities Analytics Dashboards. Unless otherwise stated, this guide refers to these two products together as Oracle Utilities Analytics. If any topic is specific to only one of the products, then it would be specifically mentioned.

About Oracle Utilities Analytics Installation

The installation of Oracle Utilities Analytics v2.5.1 is a full installation of Oracle Utilities Analytics product. This means that you do not need to install any previous version Oracle Utilities Analytics before installing Oracle Utilities Analytics v2.5.1.

Oracle Utilities Analytics (OUA) v2.5.1 installation consists of the following components, each of which needs to be installed for a successful installation:

- Star schema definitions
- Extract, Load and Transform (ELT) process built on Oracle Data Integrator
 - Note:** Oracle Utilities Network Management System, Oracle Utilities Operational Device Management and Oracle Utilities Customer Care and Billing source applications support Oracle Data Integrator based ELT component.
 - Note:** Oracle GoldenGate is utilized to capture the data and this is required only for Oracle Data Integrator based ELT.
- Extract, Transform and Load (ETL) process built on Oracle Warehouse Builder (OWB)
 - Note:** Oracle Utilities Work and Asset Management, Oracle Utilities Meter Data Management and Oracle Utilities Mobile Workforce Management source applications support Oracle Warehouse Builder based ETL component.
- Pre-built analytics' dashboards based on Oracle Business Intelligence Enterprise Edition (OBIEE)
- Admin Tool (required for Oracle Data Integrator based ELT).

What's New in Oracle Utilities Analytics v2.5.1

Oracle Utilities Analytics is a set of star schemas, graphic templates, and data processing programs that allows you to build a Business Intelligence (BI) solution to meet your organization's analytic requirements.

The product has started the process of migrating from Oracle Warehouse Builder based ETL to Oracle Data Integrator based ELT in the last few releases. This migration is planned in a phased manner, spanning across several releases over a period of time. During this migration cycle, ETL for some of the source applications will continue to use Oracle Warehouse Builder, while others will use Oracle Data Integrator.

In the release v2.5.1, Oracle Utilities Network Management System source application will start using Oracle Data Integrator (ODI) based ELT. Earlier only Oracle Utilities Operational Device Management and Oracle Utilities Customer Care and Billing source applications used to support Oracle Data Integrator based ELT component.

Note: For information about the new and enhanced products, see *Oracle Utilities Analytics Release Notes*.

Visit My Oracle Support (<http://support.oracle.com>) for the most recent service packs and patches for this release to ensure you have the most current version of this product.

Chapter 2

Installation Overview

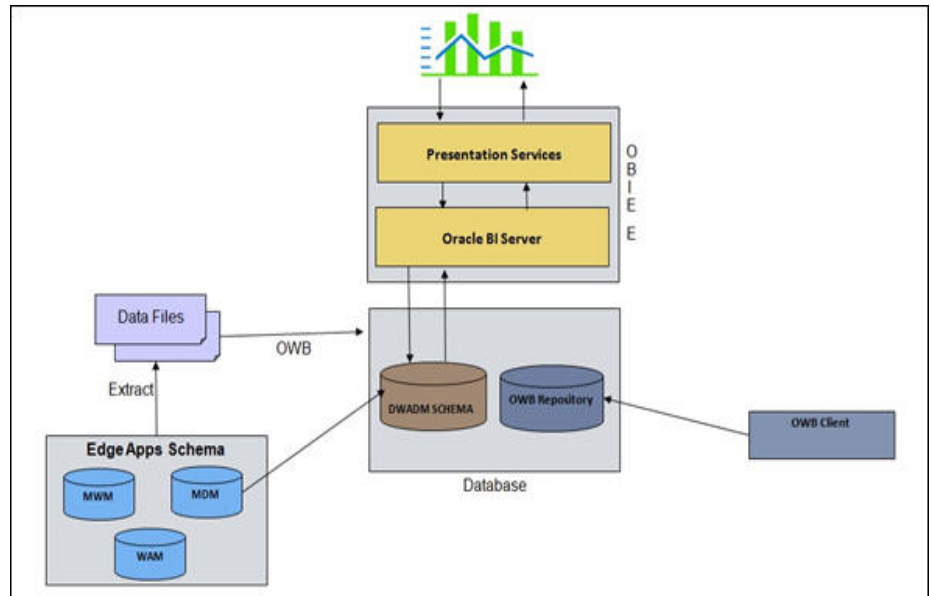
This chapter gives a detailed overview of Oracle Utilities Analytics installation. It includes the following sections:

- **Application Architecture**
- **Installation Types**
- **Installation Components**
- **Installation Scenarios**
- **Media Pack Components**
- **Supported Source Application Versions**

Application Architecture

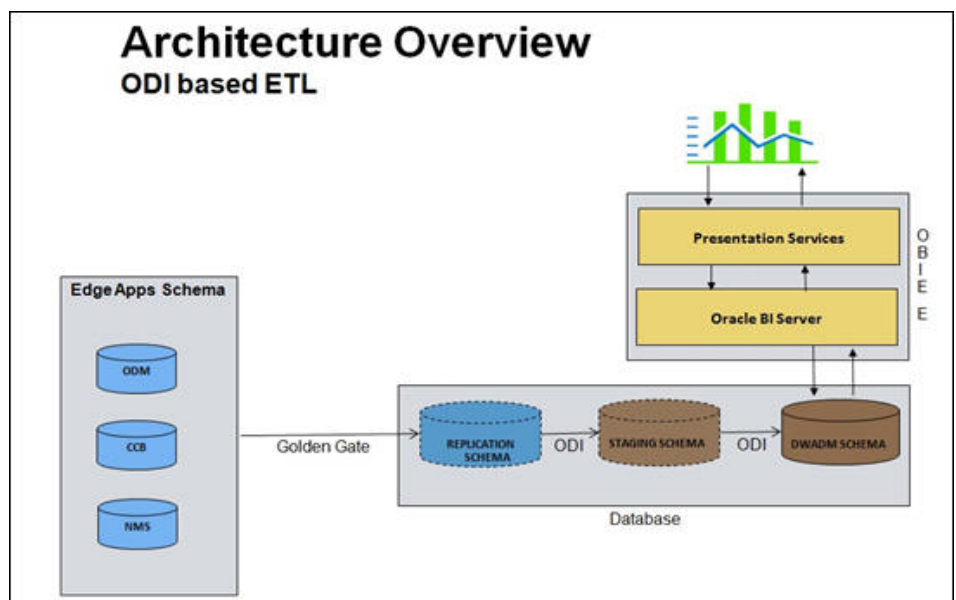
The following diagram shows the architecture of the Oracle Utilities Analytics product when using Extract, Transform and Load (ETL) based on Oracle Warehouse Builder.

Note: Applicable only if you have installed Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management.



The following diagram shows the architecture of the Oracle Utilities Analytics product when using Extract, Load and Transform (ELT) based on Oracle Data Integrator.

Note: Applicable only if you have installed Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing..



Installation Types

The first step in the installation procedure is to determine the installation type based on the installation scenario. The following are the possible installation types:

- **Initial Installation**, an installation from scratch
- **Upgrade**, an upgrade from an earlier version to Oracle Utilities Analytics v2.5.1
- **Demo Installation**, an installation with pre-populated demo data

The following sections describe each of these installations in the detail.

Initial Installation

This installation type is applicable when installing Oracle Utilities Analytics for the first time, or from scratch. Each of the following components should be installed during an initial installation:

- Oracle Utilities Analytics Database component.
- Oracle Utilities Analytics ELT component based on Oracle Data Integrator (applicable only if you have installed Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing).
- Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder (applicable only if you have installed Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management).
- Oracle Utilities Analytics Dashboard component
- Oracle Utilities Analytics Admin Tool component (applicable only if you use Oracle Data Integrator based ELT).

Note: Refer to the chapter 5 “**Oracle Utilities Analytics Initial Installation**” for the steps involved in installing each of the above-mentioned components.

Upgrade

This installation type is applicable when upgrading to Oracle Utilities Analytics v2.5.1 from an earlier version.

Note: Refer to the section **Supported Upgrade Paths** of the **Chapter 6: Upgrading Oracle Utilities Analytics** to find out how upgrade of your particular version is supported.

Each of the following components should be installed during an upgrade installation.

- Oracle Utilities Analytics Database component.
- Oracle Utilities Analytics ELT component based on Oracle Data Integrator (applicable only if you have installed Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing).
- Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder (applicable only if you have installed Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management).
- Oracle Utilities Analytics Dashboard component
- Oracle Utilities Analytics Admin Tool component (applicable only if you use Oracle Data Integrator based ELT).

Note: Refer to the **Chapter 6: Upgrading Oracle Utilities Analytics** for the steps involved in upgrading each of the required components.

Demo Installation

This installation type is applicable when installing the demo database component of Oracle Utilities Analytics Dashboards for demonstration, or training purposes. The following components should be installed for a demo installation:

- Oracle Utilities Analytics Demo Database component
- Oracle Utilities Analytics Dashboard components

Note: Oracle Utilities Analytics Dashboards also include the demo database with the pre-populated data that can be used for training or demonstration purposes. Refer to the **Chapter 7: Demo Installation Procedure** for the steps involved in installing each of the required components.

Installation Components

The Oracle Utilities Extractors and Schema v2.5.1 product installation consists of the following components:

Note: Each of the components listed below has to be installed to complete the Oracle Utilities Analytics installation.

- Oracle Utilities Analytics Database component containing star schemas and product metadata
- Oracle Utilities Analytics ELT component based on Oracle Data Integrator (ODI)

Note: Oracle Utilities Analytics ELT component based on Oracle Data Integrator should be installed on a database server. This installation is required only if you are installing Oracle Utilities Operational Device Extractor and Schema, Oracle Utilities Customer Care and Billing Extractor and Schema, or Oracle Utilities Network Management Extractor and Schema.

Note: Oracle GoldenGate (OGG) is utilized to capture the data and this is required only for Oracle Data Integrator based ELT.

- Oracle Utilities Analytics ETL components based on Oracle Warehouse Builder
- Oracle Utilities Analytics Admin Tool component installation
- Oracle Utilities Analytics Dashboard component and answers based on Oracle Business Intelligence Enterprise Edition

Note: Oracle Utilities Analytics Dashboard component should be installed on the server where Oracle Business Intelligence Enterprise Edition is installed.

Oracle Utilities Analytics Dashboards also include the demo database with the pre-populated data that can be used for training or demonstration purposes. Refer to the **Chapter 7: Demo Installation Procedure** for steps involved in installing each of the required components.

Installation Scenarios

The following installation scenarios are discussed with the respective flow chart diagrams:

- **Installation Scenario 1: Oracle Warehouse Builder based on ETL**

In this scenario, the initial installation of ETL component is based on Oracle Warehouse Builder. This is supported for the following source applications:

- Oracle Utilities Work and Asset Management (WAM)
- Oracle Utilities Meter Data Management (MDM)
- Oracle Utilities Mobile Workforce Management (MWM)

- **Installation Scenario 2: Oracle Data Integrator based on ELT**

In this scenario, the initial installation of ELT component is based on Oracle Data Integrator and Oracle GoldenGate. This is supported for the following source applications:

- Oracle Utilities Network Management System (NMS)
- Oracle Utilities Operational Device Management (ODM)
- Oracle Utilities Customer Care and Billing (CC&B)

- **Installation Scenario 3: ETL based on Oracle Warehouse Builder and Oracle Data Integrator:**

Both Oracle Warehouse Builder based ETL and Oracle Data Integrator based ELT are needed. This scenario is applicable when you have edge applications from both the scenarios mentioned above.

- **Installation Scenario 4: Upgrade**

This scenario is applicable to the users who are upgrading to Oracle Utilities Analytics v2.5.1 from an earlier released version.

Note: See **Media Pack Components** for the list of components comprising the Oracle Utilities Analytics product.

Note: See **Supported Source Application Versions** for the supported source application versions.

Note: See the section **Prerequisite Software** of the Chapter 4: Planning the Oracle Utilities Analytics Installation for the list of prerequisite software necessary for installing each component.

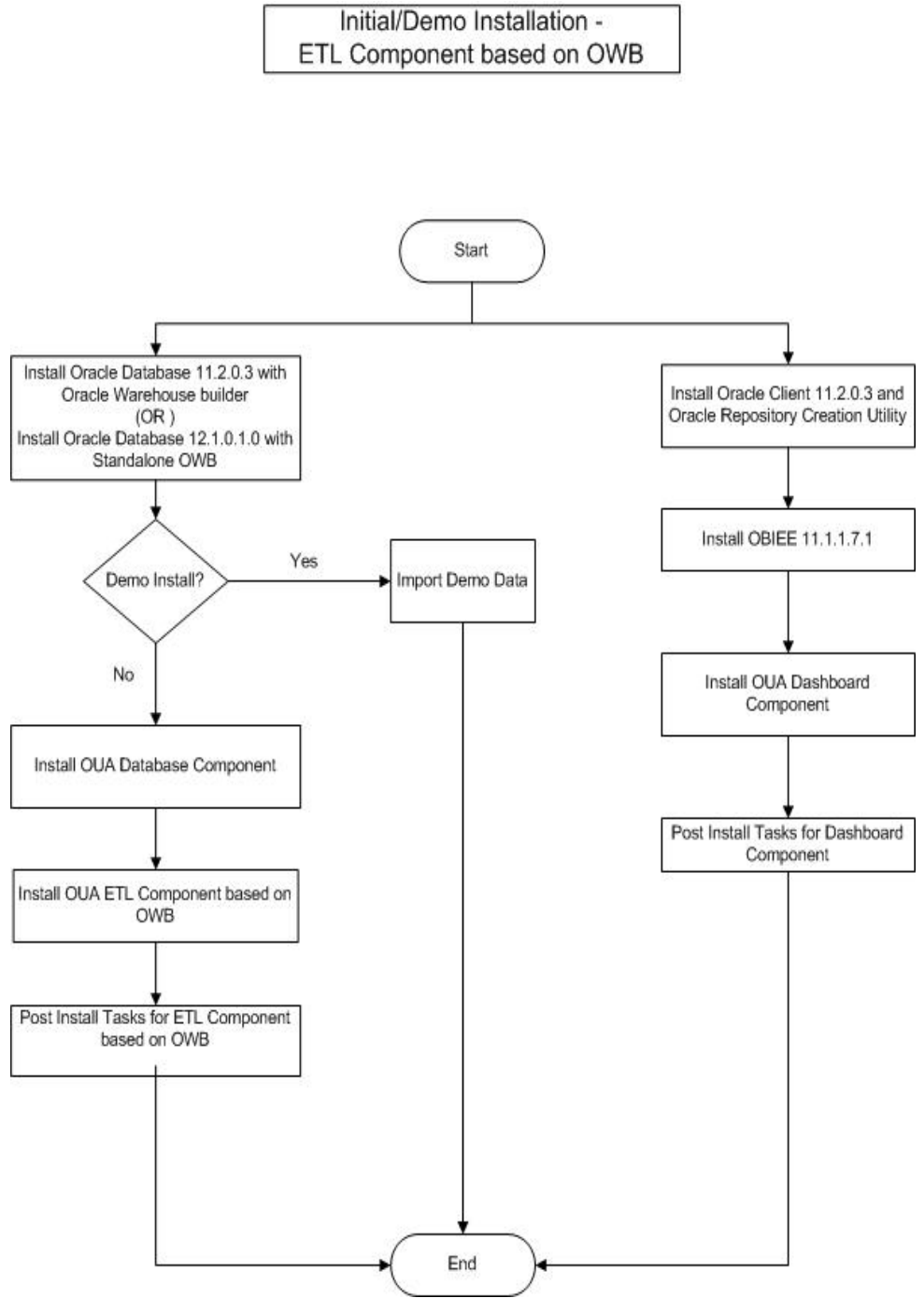
Installation Scenario 1: Oracle Warehouse Builder based on ETL

This scenario provides an overview of the installation steps required if you are installing products those use Oracle Warehouse Builder based ETL:

- Oracle Utilities Work and Asset Management
- Oracle Utilities Meter Data Management
- Oracle Utilities Mobile Workforce Management

If you are using any other edge applications, refer to the installation scenario 2 or 3, as the case may be.

The following diagram shows the workflow for the initial installation for ETL components based on Oracle Warehouse Builder:



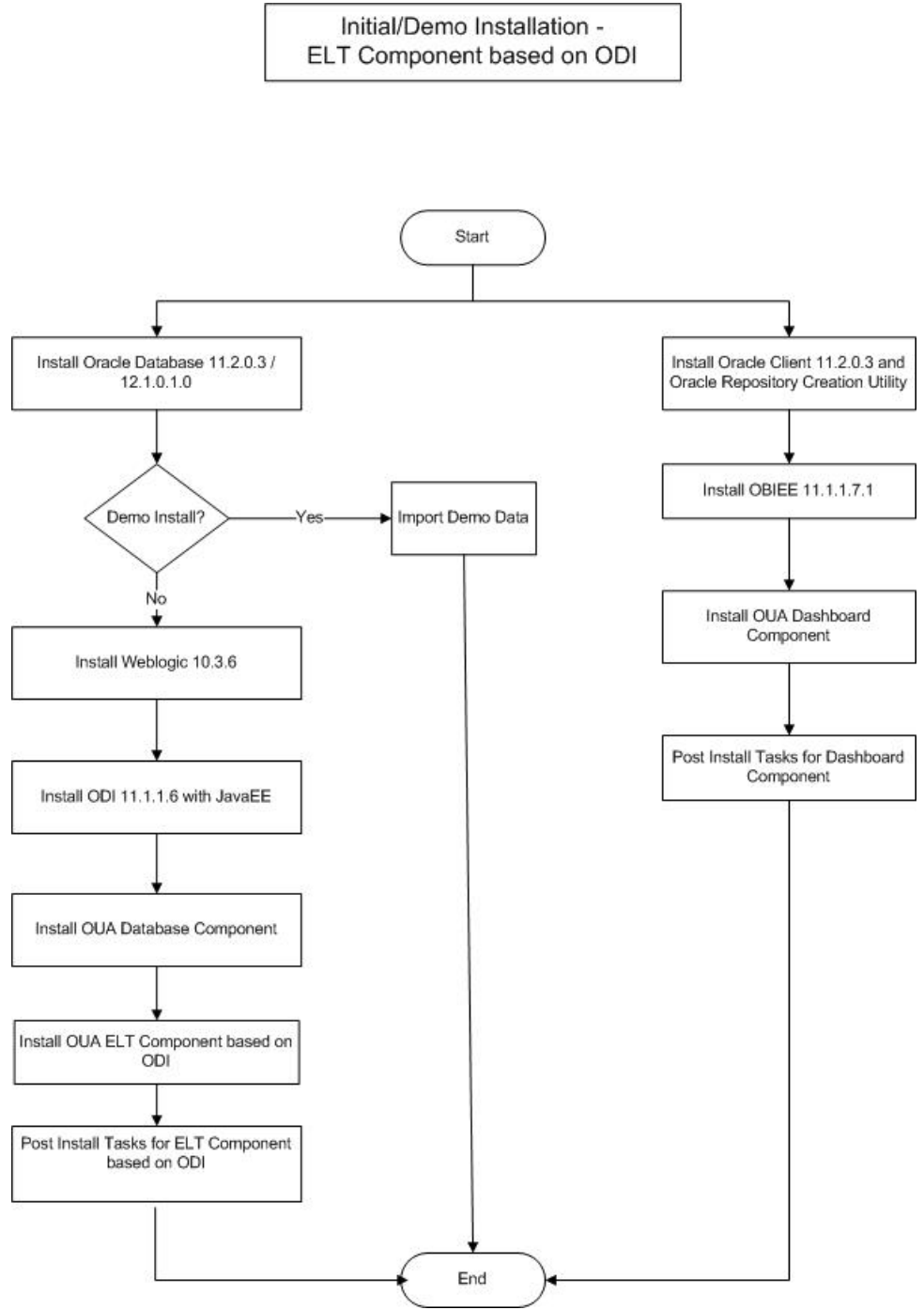
Installation Scenario 2: Oracle Data Integrator based on ELT

This scenario provides an overview of the installation steps required if you are installing products those use Oracle Data Integrator based ELT:

- Oracle Utilities Network Management System
- Oracle Utilities Operational Device Management
- Oracle Utilities Customer Care and Billing

If you are using any other edge applications, refer to installation scenario 1 or 3, as the case may be.

The following diagram shows the workflow for the initial installation process for the ELT component based on Oracle Data Integrator:



Installation Scenario 3: ETL based on Oracle Warehouse Builder and Oracle Data Integrator

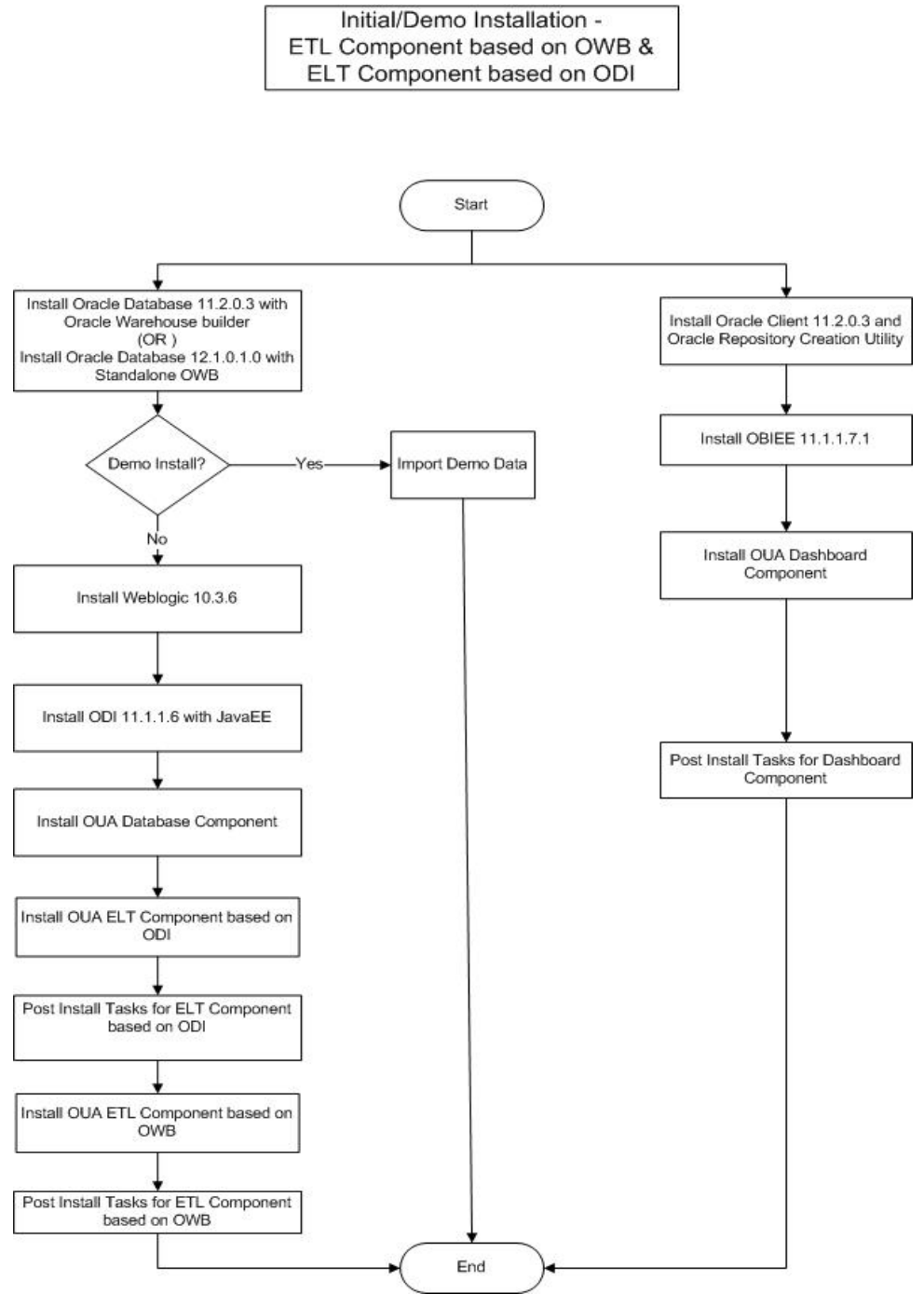
This scenario provides an overview of the installation steps required if you are installing ETL for the combination of edge applications mentioned in installation scenario 1 and 2, i.e., one or more edge applications from:

- Oracle Utilities Work and Asset Management
- Oracle Utilities Meter Data Management
- Oracle Utilities Mobile Workforce Management

As well as one or more from:

- Oracle Utilities Network Management System
- Oracle Utilities Operational Device Management
- Oracle Utilities Customer Care and Billing

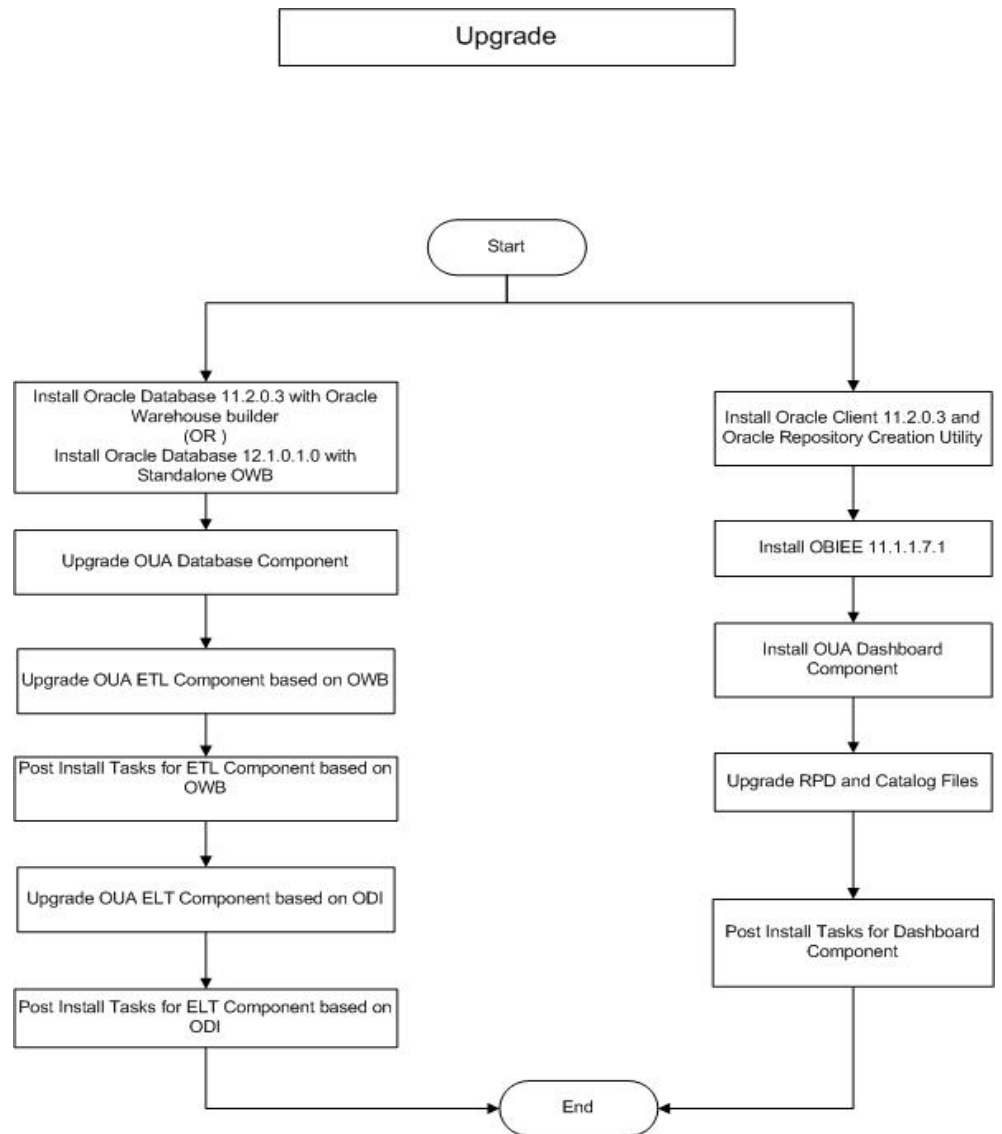
The following diagram shows workflow for the initial installation process for the ETL components based on Oracle Warehouse Builder as well as Oracle Data Integrator:



Installation Scenario 4: Upgrade

This installation type is for the users who are upgrading from an earlier version of Oracle Utilities Analytics to Oracle Utilities Analytics v2.5.1.

The following diagram shows the workflow for the upgrade process:



Media Pack Components

Oracle Utilities Analytics v2.5.1 media pack consists of the following documentation and installation packages:

Documentation Packages

- *Oracle Utilities Analytics v2.5.1 Release Notes*
- *Oracle Utilities Analytics v2.5.1 Quick Install Guide*
- *Oracle Utilities Analytics v2.5.1 Installation Guide and Configuration Guide*
- *Oracle Utilities Analytics v2.5.1 User's Guide*

Installation Packages

- *Oracle Utilities Analytics v2.5.1 Dashboard Component Multiplatform*
- *Oracle Utilities Analytics v2.5.1 ETL Component Based on OWB Multiplatform*
- *Oracle Utilities Analytics v2.5.1 ETL Component Based on ODI Multiplatform*
- *Oracle Utilities Analytics v2.5.1 Oracle Database Multiplatform*
- *Oracle Utilities Analytics v2.5.1 Demo Data*

Supported Source Application Versions

The following are the supported source application versions:

Source Application	Version
Oracle Utilities Customer Care and Billing	2.4.0.2
Oracle Utilities Network Management System	1.12.0.1
Oracle Utilities Work and Asset Management	1.9.1.2
Oracle Utilities Meter Data Management	2.0.1.9 2.1.0.2
Oracle Utilities Mobile Workforce Management	2.1.0.5 2.2.0.0
Oracle Utilities Operational Device Management	2.0.1.2

Chapter 3

System Requirements and Supported Platforms

This section gives an overview of the tiers on which the product is implemented and shows each of the operating system/server combinations that the product is supported for. It includes:

- **Operating Systems and Application Servers**
- **Additional Notes on the Supported Platforms**

Operating Systems and Application Servers

Oracle Utilities Analytics v2.5.1 installation is supported to operate on many operating system, application server, and database server combinations.

The following table details the minimum versions of the browser, operating system, and application server combinations on which Oracle Utilities Analytics v2.5.1 has been tested and supported:

Browser	Operating System (Client)	Operating System (Server)	Chipset	Application Server	Oracle Business Intelligence Enterprise Edition (OBIEE)	Oracle Data Integrator (ODI)	Oracle GoldenGate	Database
IE 9.x Firefox 24.5ESR+ Windows 7 (64 bit)		AIX 7.1 (64-bit)	Power 64-bit	WebLogic 10.3.6	11.1.1.7.1	11.1.1.6	12.1.2.0.0	Oracle 11.2.0.3 Or 12.1.0.1.0
		Oracle Enterprise Linux 6.5 (64-bit) / Red Hat Enterprise Linux 6.5 (64-bit)	x86_64	WebLogic 10.3.6	11.1.1.7.1	11.1.1.6	12.1.2.0.0	Oracle 11.2.0.3 Or 12.1.0.1.0
		Oracle Solaris 11 (64-bit)	SPARC	WebLogic 10.3.6	11.1.1.7.1	11.1.1.6	12.1.2.0.0	Oracle 11.2.0.3 Or 12.1.0.1.0
		Windows Server 2008 R2 (64-bit)	x86_64	WebLogic 10.3.6	11.1.1.7.1	11.1.1.6	12.1.2.0.0	Oracle 11.2.0.3 Or 12.1.0.1.0

Important Note: Every new release of Oracle Utilities Analytics is tested against the latest versions of the required software, such as Oracle Business Intelligence Enterprise Edition, Oracle Data Integrator, Oracle GoldenGate, etc. However, any fourth digit change in these software versions is generally backward compatible, and is supported by the product.

Important Note: Oracle Utilities Analytics supports Oracle Data Integrator based ELT from the source database on 11g to the target database on 11g and the source database on 12c to the target database on 12c. It means that the source database and the target database versions must match.

Important Note: The patch 19152142 needs to be installed on top of Oracle GoldenGate v12.1.2.0.0 if the target database server is on the version 11.2.0.3 and the patch 19152124 needs to be installed on top of Oracle GoldenGate v12.1.2.0.0 if the target database server is on the version 12.1.0.1.0. Installing these patches is mandatory for Oracle Utilities Analytics v2.5.1. These patches are only needed for the Oracle GoldenGate installation on the target server. These patches should NOT be installed on the Oracle GoldenGate installation on the source server.

Important Note: Oracle Warehouse Builder is installed as a part of Oracle Database Enterprise Edition Server 11.2.0.3. If you are using Oracle Database Enterprise Edition Server 12.1.0.1.0, standalone software for Oracle Warehouse Builder should be installed separately.

Important Note: The patch 16568042 needs to be installed on top of the standalone installation of Oracle Warehouse Builder in order to use Oracle Warehouse Builder software with Oracle Database Server 12.1.0.1.0.

Important Note: Oracle Warehouse Builder based ETL is not supported on Solaris and AIX operating systems with Oracle Database Server 12.1.0.1.0.

You must have the following software listed out below:

- Oracle Business Intelligence Enterprise Edition (OBIEE) is required for Oracle Utilities Analytics Dashboards.
- Oracle Data Integrator, Oracle GoldenGate, Oracle WebLogic and Oracle Application Express are required for Oracle Utilities Analytics ELT component based on Oracle Data Integrator.

Additional Notes on the Supported Platforms

The following topics are discussed in this section:

- **Oracle Unbreakable Enterprise Kernel**
- **Oracle Database Server**
- **Oracle VM Support**
- **Oracle Support Policy on VMWare**

Oracle Unbreakable Enterprise Kernel

Oracle Utilities Analytics v2.5.1 is supported on Oracle Unbreakable Enterprise Kernel.

Oracle Database Server

Oracle Utilities Analytics v2.5.1 is supported on Oracle Database Enterprise Edition Server 11.2.0.3 /or 12.1.0.1.0 on any of the operating systems listed above.

Note: Oracle Utilities Analytics version v2.5.1 is supported on Oracle Database Server Standard Edition 11.2.0.3 /or 12.1.0.1.0 only when using ELT component based on Oracle Data Integrator.

Oracle VM Support

Oracle Utilities Analytics v2.5.1 is supported on Oracle VM Server for x86 2.2.2 for the supported releases of Oracle Linux and Microsoft Windows operating systems.

Oracle Support Policy on VMWare

Refer to the knowledge base article ID 249212.1 on My Oracle Support for Oracle's support policy on VMWare.

<https://support.oracle.com>

Chapter 4

Planning the Oracle Utilities Analytics Installation

This chapter provides information about planning Oracle Utilities Analytics (OUA) installation v2.5.1, including:

- **Prerequisite Software**
- **Installation Checklist**

Note: In order to perform successful installation of the product, you must have experience of working on, or installing the following products:

- Oracle Database Server
- Oracle Business Intelligence Enterprise Edition
- Oracle Warehouse Builder
- Oracle Data Integrator
- Oracle GoldenGate
- Oracle Application Express feature of Oracle database

Note: Refer to the corresponding installation guide of these products before installing Oracle Utilities Analytics.

Prerequisite Software

For installing Oracle Utilities Analytics v2.5.1, a few prerequisite software products need to be downloaded and installed. Download and install these software products as per the instructions provided in the respective installation documents.

Note: Ensure that the same Operating System (OS) user is used to install all software prerequisites and Oracle Utilities Analytics components.

The following sections describe the prerequisite software requirement Oracle Utilities Analytics:

- **Prerequisite Software for Oracle Utilities Analytics Database Component**
- **Prerequisite Software for Oracle Utilities Analytics ELT Component based on Oracle Data Integrator**
- **Prerequisite Software for Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder**
- **Prerequisite Software for Oracle Utilities Analytics Dashboard Component**
- **Prerequisite Software for Oracle Utilities Analytics Admin Tool Component**

Prerequisite Software for Oracle Utilities Analytics Database Component

The prerequisite software for Oracle Utilities Analytics database component is as described below:

- **Oracle Database Server Enterprise Edition 11.2.0.3 / or 12.1.0.1.0:** This is required for installing the database component of the Oracle Utilities Analytics

Note: Oracle Utilities Analytics v2.5.1 is supported on Oracle Database Server Standard Edition 11.2.0.3 / or 12.1.0.1.0 only when using ELT component based on Oracle Data Integrator.

Prerequisite Software for Oracle Utilities Analytics ELT Component based on Oracle Data Integrator

Note: Applicable only if you have installed Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing.

The prerequisite software products for Oracle Utilities Analytics ELT component based on Oracle Data Integrator (ODI) are listed below. These software products should be installed on the database server:

- JDK 1.6.0 (20 -35)
- Oracle Database Server Enterprise Edition 12.1.0.1.0/or 11.2.0.3, or Oracle Database Server Standard Edition 12.1.0.1.0/ or 11.2.0.3
- Oracle WebLogic 10.3.6
- Oracle Data Integrator 11.1.1.6 with Java EE

Note: While installing Oracle Data Integrator, do not create any repositories. Select **Skip Repository Configuration** option.

Note: While installing Oracle Data Integrator, select the **Developer Installation** and **Java EE Installation** options in the **Select Installation Type** step.

- Oracle GoldenGate 12.1.2.0.0 on the source application database server and the target database server
This can be downloaded from Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).

Prerequisite Software for Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder

Note: Applicable only if you have installed any one of the edge applications ,such as Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management.

The prerequisite software products for Oracle Utilities Analytics ETL based on Oracle Warehouse Builder component are as follows:

- JDK 1.6.0 (20-35) is required for running the File Processor daemon
- Oracle Database Server Enterprise Edition 11.2.0.3 with Oracle Warehouse Builder 11.2.0.3 or Oracle Database Server Enterprise Edition 12.1.0.1.0 with standalone Oracle Warehouse Builder installation. The patch 16568042 needs to be installed on top of the standalone installation of Oracle Warehouse Builder in order to use Oracle Warehouse Builder software with Oracle Database Server 12.1.0.1.0.

Prerequisite Software for Oracle Utilities Analytics Dashboard Component

The prerequisite software for Oracle Utilities Analytics Dashboard component is as follows:

- Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 with the **Enterprise Install** option.

Note: Install the Oracle 11.2.0.3 / or 12.1.0.1.0 client if Oracle Business Intelligence Enterprise Edition software is not installed on the database server. If Oracle Business Intelligence Enterprise Edition software is installed, then there is no need to install the Oracle client.

Note: After Oracle Business Intelligence Enterprise Edition installation, save a snapshot of the last page of Oracle Business Intelligence Enterprise Edition installation having details of BI Oracle Home, Instance Home, etc. These values will be used during the Oracle Utilities Analytics installation.

Prerequisite Software for Oracle Utilities Analytics Admin Tool Component

Note: Applicable only if you use Oracle Data Integrator based ELT.

The prerequisite software products for the Oracle Utilities Analytics Admin Tool component are as follows:

- Oracle Database Server Enterprise Edition 12.1.0.1.0 /or 11.2.0.3 or Oracle Database Server Standard Edition 12.1.0.1.0 /or 11.2.0.3
- Oracle Apex 4.2.5

Installation Checklist

The following checklist guides you through the installation process for Oracle Utilities Analytics v2.5.1:

The details are provided in subsequent chapters for each of the below-listed step:

1. Determine the installation type and the installation scenario. See **Media Pack Components** to determine the installation type for your scenario. Perform the installation steps as applicable to your installation type.
2. Install the prerequisite software.
See **Prerequisite Software** for more details.
3. Ensure that you have downloaded the Oracle Utilities Analytics components.

Note: Refer to the chapter **Oracle Utilities Analytics Initial Installation** for instructions regarding initial installation.

Note: For upgrading from an earlier version of Oracle Utilities Analytics to Oracle Utilities Analytics v2.5.1, refer to the chapter **Upgrading Oracle Utilities Analytics**.

Note: Refer to **Demo Installation Procedure** for instructions about demo installation.

4. Perform the post-installation tasks and configure the application.

Chapter 5

Oracle Utilities Analytics Initial Installation

This chapter provides instructions for installing Oracle Utilities Analytics v2.5.1. It includes the following topics:

- **Initial Installation Procedure**

Note: In order to install the product successfully, it is recommended that you have prior experience of working on it or installing it:

- Oracle Database Server
- Oracle Business Intelligence Enterprise Edition
- Oracle Warehouse Builder
- Oracle Data Integrator
- Oracle GoldenGate
- Application Express feature of Oracle database

Note: Refer to the respective installation guide of these products before installing Oracle Utilities Analytics.

Initial Installation Procedure

The following topics are discussed in this section:

- **Installing Oracle Utilities Analytics Database Component**
- **Installing Oracle Utilities Analytics ELT Component Installation based on Oracle Data Integrator**
(applicable only if you have installed Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing).
- **Installing Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder**
(applicable only if you have installed Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management).
- **Installing Oracle Utilities Analytics Dashboard Component**
- **Installing the Oracle Utilities Analytics Admin Tool**
(applicable only if you use Oracle Data Integrator based ELT).

Installing Oracle Utilities Analytics Database Component

This section describes how to install the database component of Oracle Utilities Analytics v2.5.1. It includes the following topics:

- **Copying and Decompressing the Install Media**
- **Creating the Database**
- **Creating the Users and the Tablespaces**
- **Installing the RELADM Schema**
- **Installing the MDADM Schema**
- **Installing the DWADM Schema**
- **Configuring the Spatial Data**

Copying and Decompressing the Install Media

To copy and decompress the install media, perform these steps:

1. Download Oracle Utilities Analytics version 2.5.1 Oracle Database part (**Oracle Utilities Analytics V2.5.1 Oracle Database Multiplatform.zip**) from the Oracle Software Delivery Cloud ([https:// edelivery.oracle.com](https://edelivery.oracle.com)).
2. Create a temporary directory, such as c:\OUA\temp or /OUA/temp (Referred to <TEMPDIR> below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation, can be deleted after completing a successful installation.
3. Unzip **Oracle Utilities Analytics V2.5.1 Oracle Database Multiplatform.zip** to <TEMPDIR> using any zip utility.
4. Unzip the zip file <TEMPDIR>/OUA-V2.5.1-Database-Multiplatform.zip using any zip utility.

Creating the Database

Ensure that Oracle Database Server Enterprise Edition 12.1.0.1.0 /11.2.0.3 is already installed on the machine in order to create the database. Use the **Database Configuration Assistant (DBCA)** utility to create the database.

Note: Refer to Oracle database documentation to know more about the Database Configuration Assistant (DBCA).

For an initial installation database creation, it is recommended that you use the Database Configuration Assistant to create a database with the **AL32UTF8** character set. Set the open cursor limit to 3000 and processes to 1000 at the time of the database creation.

Creating the Users and the Tablespaces

Perform the following steps for creating the required users and the tablespaces:

1. Ensure to create users in the database with the following names: DWADM, DWUSER, DWREAD, MDADM, RELADM, SPLADM, SPLUSER, SPLREAD, MASTER_REPO, WORK_REPO and DWSTAGE if these do not exist already, without giving specific roles.
2. Ensure to create roles with the following names: DW_USER, DW_READ, DW_REPLICATE, SPL_USER and SPL_READ roles if these do not exist already.
3. Connect to the **sys user**, execute the **Usersgrants.sql** in **BI251/Scripts/Usersgrants.sql**. This SQL provides the required grants to the users created above.

Installing the RELADM Schema

The RELADM schema is a metadata schema that consists of the database objects used for storing the product version and component installation information.

This section describes initial installation of the RELADM schema, including:

- **Reviewing the Storage.par file**
- **Installation Steps**
- **Generating the Database Statistics**

The process prompts you for the names of three database users:

- A user that owns the application schema. Provide the value: RELADM.
- A user that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A user with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.

The process also prompts you for the following:

- A database role that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A database role with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- The location for jar files (the Jar files are bundled with the database package).
- Java Home (for example: C:\Java\jdk1.6.0_20).

Reviewing the Storage.par file

The **storage.par** file (that comes with the product and is in location ..\BI251\RELADM\Install-Upgrade) allocates all the base tables and indexes to the default tablespace CISTS_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the **storage.par** file by changing the tablespace name from the default value to a custom value, according to the format shown below:

```
Object Type:Object Name:Tablespace name:Parallel:Comments
```

Where **Parallel** defines the number of threads that Oracle database server uses to access a table or to create an index. The default value is 1.

Note: If database does not have CISTS_01 tablespace or the RELADM user does not have quota on CISTS_01 tablespace, you must edit the tablespace name in the Storage.par file to tablespace name on which RELADM has quota.

Installation Steps

Perform the following steps to install the RELADM schema:

Note: Ensure to run the **CDXDBI.exe** (in the step below) from a Windows desktop that has the Oracle 11.2.0.3 +32 bit client and the Java Development Kit Version 6.0 Update 20 or later. Ensure that the **tnsnames.ora** file of the Oracle client is updated with the entry for the target database to connect to the target database.

1. Run the **CDXDBI.exe** from ..\BI251\RELADM\Install-Upgrade. Run the utility from the command prompt. The utility prompts you to enter values for the following parameters:
 - The name of the target database: <DB NAME>.
 - The password for the system user account in the database (in silent mode).

-
- The name of the owner of the database schema: RELADM.
 - The location of Java Home: <..\jdk1.6.0_20>.
 - The location of TUGBU Jar files: <..\BI251\RELADM\Jarfiles>.
 - The password for the user (in silent mode): <RELADM user password>.
 - The Oracle user with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle user with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
2. The utility creates schema and system data definitions.

If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before using the database, generate the statistics for these new objects:

Connect to the sys user, and execute the command:

```
execute DBMS_STATS.GATHER_SCHEMA_STATS ('RELADM');
```

Installing the MDADM Schema

The MDADM schema is a metadata schema that consists of the database objects used for storing the metadata of Oracle Utilities Analytics. For example, ETL job execution status, target tables for ETL, Oracle GoldenGate configuration details, etc.

This section describes initial installation of the MDADM schema, including:

- **Reviewing the Storage.par file**
- **Installation Steps**
- **Generating the Database Statistics**

The process prompts you for the names of three database users:

- A user that owns the application schema. Provide value: MDADM.
- A user that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A user with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.

The process also prompts you for the following:

- A database role that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A database role with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- The location for jar files (the Jar files are bundled with the database package).
- Java Home (for example: C:\Java\jdk1.6.0_20).

Reviewing the Storage.par file

The **storage.par** file (that comes with the product and is in location `..\BI251\MDADM\Install-Upgrade`) allocates all the base tables and indexes to the default tablespace `CISTS_01`. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the **storage.par file** by changing the tablespace name from the default value to a custom value, according to the format shown below:

```
Object Type:Object Name:Tablespace name:Parallel:Comments
```

Where `Parallel` defines the number of threads that the Oracle database server uses to access a table or to create an index. The default value is 1.

Note: If the database does not have CISTS_01 tablespace or the MDADM user does not have quota on CISTS_01 tablespace, you must edit the tablespace name in the Storage.par file to the tablespace name on which the MDADM has quota.

Installation Steps

Perform the following steps to install the MDADM schema:

Note: Ensure to run the **CDXDBI.exe** (in the step below) from a Windows desktop that has the Oracle 11.2.0.3 + 32 bit client and Java Development Kit Version 6.0 Update 20 or later. Ensure that the **tnsnames.ora** file of the Oracle client is updated with the entry for the target database to connect to the target database.

1. Run the **CDXDBI.exe** from `..\BI251\MDADM\Install-Upgrade`. Run the utility from the **Command Prompt**. The utility prompts you to enter values for the following parameters:
 - The name of the target database: <DB NAME>.
 - The password for the system user account in the database (in silent mode).
 - The name of the owner of the Database Schema: MDADM.
 - The location of Java Home: <..\jdk1.6.0_20>.
 - The location of TUGBU Jar files: <..\BI251\MDADM\Jarfiles>.
 - The password for the user (in silent mode).
 - The Oracle user with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle user with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
2. The utility creates schema and system data definitions.

If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before using the database, generate the statistics for these new objects:

Connect to the sys user, and execute the command:

```
execute DBMS_STATS.GATHER_SCHEMA_STATS('MDADM');
```

Installing the DWADM Schema

The DWADM schema contains the star schema objects such as facts and dimensions that contain all the data of the data warehouse.

This section describes initial installation of the DWADM schema, including:

- **Reviewing the Storage.par file**
- **Installation Steps**
- **Generating the Database Statistics**

The process prompts you for the names of three database users:

- A user that owns the application schema. For example, DWADM.
- A user that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user. For example, DWUSER.
- A user with the read-only privileges to the objects in the application schema. For example, DWREAD.

The process also prompts you for the following:

- A database role that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. For example: DW_USER. The application will access the database as DW_USER.
- A database role with the read-only privileges to the objects in the application schema. For example, DW_READ.
- The location for jar files (the Jar files are bundled with the database package).
- Java Home (for example: C:\Java\jdk1.6.0_20).

Reviewing the Storage.par file

The **storage.par** file (that comes with the product and is in location `..\BI251\DWADM\Install-Upgrade`) allocates all the base tables and indexes to the default tablespace CISTS_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the **storage.par** file by changing the tablespace name from the default value to a custom value, according to the format shown below:

```
Object Type:Object Name:Tablespace name:Parallel:Comments
```

Where Parallel defines the number of threads that the Oracle database server uses to access a table or to create an index. The default value is 1.

Note: If database does not have CISTS_01 tablespace or the DWADM user does not have quota on CISTS_01 tablespace, you must edit the tablespace name in the Storage.par file to tablespace name on which the DWADM has quota.

Installation Steps

Perform the following steps to install the DWADM schema:

Note: Ensure to run the **CDXDBI.exe** (in the step below) from a Windows desktop that has the Oracle 11.2.0.3+32 bit client and Java Development Kit Version 6.0 Update 20 or later. Ensure that the **tnsnames.ora** file of the Oracle client is updated with the entry for the target database to connect to the target database.

1. Run the **CDXDBI.exe** from `..\BI251\DWADM\Install-Upgrade`. Run the utility from the **Command Prompt**. The utility prompts you to enter values for the following parameters:
 - The name of the target database: <DB NAME>.

-
- The password for the system user account in the database (in silent mode).
 - The name of the owner of the Database Schema: DWADM.
 - The location of Java Home: <..\jdk1.6.0_20>.
 - The location of TUGBU Jar files: <..\BI251\DWADM\Jarfiles>.
 - The password for the user (in silent mode).
 - The Oracle user with the read-write privileges to the database schema: DWUSER.
 - The Oracle user with the read-only privileges to the database schema: DWREAD.
 - The Oracle database role with the read-write privileges to the database schema: DW_USER.
 - The Oracle database role with the read-only privileges to the database schema: DW_READ.
2. If you choose to continue, the CDXDBI first checks for the existence of each of the users specified and prompts for their password, default tablespace, and temporary tablespace if they do not exist.
 3. After setting up roles and users, the utility continues upgrading schema and system data definitions.
If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before using the database, generate the statistics for these new objects:

Connect to the sys user and execute the command:

```
execute DBMS_STATS.GATHER_SCHEMA_STATS ('DWADM');
```

Configuring the Spatial Data

Refer to the section **Spatial Configuration** for the details regarding the spatial configuration.

Installing Oracle Utilities Analytics ELT Component Installation based on Oracle Data Integrator

Note: Ensure that the same Operating System (OS) user is used to install the Oracle Utilities Analytics ELT component that is used to install all the related software. Refer to the section **Prerequisite Software**.

Note: You must install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator (ODI) only if you are using Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing as the source applications.

Note: Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing application set up is a prerequisite in order to install Oracle Data Integrator based ELT component. The source applications should be setup with the required configurations before proceeding with the Oracle Data Integrator based ELT component installation in order to successfully extract data from them, to Oracle Utilities Analytics.

Refer to the chapter **Configuring Oracle Utilities Network Management System for Business Intelligence** in *Oracle Utilities Extractors and Schema for Oracle Utilities Network Management System Data Mapping Guide*.

Refer to the chapter **Configuring Oracle Utilities Operational Device Management for Business Intelligence** in *Oracle Utilities Extractors and Schema for Oracle Utilities Operational Device Management Data Mapping Guide*.

Refer to the chapter **Configuring Oracle Utilities Customer Care and Billing for Business Intelligence** in *Oracle Utilities Extractors and Schema for Oracle Utilities Customer Care and Billing Data Mapping Guide*.

This section describes how to install the ELT component of Oracle Utilities Analytics. The section includes the following:

- **Setting up Oracle GoldenGate**
- **Copying and Decompressing the Install Media**
- **Setting Permissions for the Cistab File in UNIX**
- **Oracle Utilities Analytics ELT Component based on Oracle Data Integrator Package Installation Steps**
- **Post-installation Tasks**
- **Generating Security and Starting Oracle Data Integrator Scheduler**

Setting up Oracle GoldenGate

Note: This section describes setup required in Oracle GoldenGate to work with Oracle Utilities Analytics. For installing Oracle GoldenGate, refer to its installation document.

Note: You should install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator (ODI) only if you are using Oracle Utilities Network Management System, Oracle Utilities Operational Device Management or Oracle Utilities Customer Care and Billing as the source application.

Download Oracle GoldenGate 12.1.2.0.0 from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>) and set up Oracle GoldenGate on the source and the target database servers.

This section describes the following:

- **Setting up Oracle GoldenGate on the Source Database Server**
- **Setting up Oracle GoldenGate on the Target Database Server**

Setting up Oracle GoldenGate on the Source Database Server

Perform the following steps for each source instance:

1. Create a directory on the source database server. For example, `./Golden Gate Home`. Oracle GoldenGate should be installed in this directory. This will be **Oracle GoldenGate home (OGG_Home)** on the source database server.

Important Note: Make a note of this directory location; it will be used during the Oracle Utilities Analytics installation.

2. Open a command terminal/window, and set the source `ORACLE_SID` and `ORACLE_HOME` variables.

Set `LD_LIBRARY_PATH` using the following commands:

For Unix:

```
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

For Windows:

```
set LD_LIBRARY_PATH=%ORACLE_HOME%\lib;%LD_LIBRARY_PATH%
```

-
- In the **Command** window, change directory to the Oracle GoldenGate home directory, and execute the command as shown below:

For Unix:

```
./ggsci
```

For Windows:

```
ggsci
```

This opens the Oracle GoldenGate prompt.

- On the **Oracle GoldenGate** prompt, execute the **create SUBDIRS** command.
- On the **Oracle GoldenGate** prompt, execute the **EDIT PARAMS mgr** command. This command opens an editor.
- Copy the below contents:
 - PORT 7830
 - DYNAMICPORTLIST 7830-7880
- Note:** Make sure the mentioned port range (7830-7880) is not in use. If they are in use, provide another available port range.
- Note:** Make a note of the range start and end ports numbers; it will be used during the Oracle Utilities Analytics installation.
- Note:** Refer to Oracle GoldenGate documentation if you would like to configure other settings such as **Purge**.
- On the **Oracle GoldenGate** prompt, execute the **start mgr** command to start the Oracle GoldenGate manager process.
- On the **Oracle GoldenGate** prompt, execute the **info all** command to view the manager process is running. Exit Oracle **GoldenGate** by executing the **Exit** command.
- Ensure that the source database is in the **archivelog** mode.
- Connect to the source database as the sys user and execute the **alter database add supplemental log data (primary key) columns** command.
- Go to the **Oracle GoldenGate home (OGG_Home)** directory.
- Connect to the database as the sys user using the **SQL*Plus (OGG_Home)** should be the current directory while invoking **SQL*Plus**.
- Create a new user, for example: ODM01SRC (this user is the Oracle GoldenGate owner) and make sure to assign a tablespace to this user that is not assigned to any other user.

Important Note: Make a note of the GoldenGate Owner Username; it will be used during Oracle Utilities Analytics installation.

- Execute **Grant connect,resource,dba** to <GoldenGate owner user created in the step mentioned above>.
- Connect to the source application ADM schema such as CISADM, and execute the below commands:

For Oracle Utilities Customer Care and Billing source database, execute the following grants:

Grant select on F1_MST_CONFIG to < GoldenGate owner user created in the step mentioned above>

Grant select on F1_EXT_LOOKUP_VAL to < GoldenGate owner user created in the step mentioned above >

Grant select on F1_BKT_CONFIG to < GoldenGate owner user created in the step mentioned above >

Grant select on F1_BKT_CONFIG_VAL to < GoldenGate owner user created in the step mentioned above >

For Oracle Utilities Operational Device Management source database, execute the following grants:

Grant select on F1_MST_CONFIG to < GoldenGate owner user created in the step mentioned above>

Grant select on F1_EXT_LOOKUP_VAL to < GoldenGate owner user created in the step mentioned above>

Note: While executing the SQL commands in the steps 16, 17 and 18, provide the GoldenGate owner user if prompted for. All the scripts mentioned below are located in **GoldenGate Home** directory and must be executed after connecting to the sys user.

16. Run the command:
@marker_setup.sql
17. Run the command:
@ddl_setup.sql
18. Run the command:
@role_setup.sql
19. Exit the **SQL*Plus** login and create a directory named **diroby** inside **OGG_Home** directory.

Setting up Oracle GoldenGate on the Target Database Server

Perform the following steps:

1. Create a directory on the target database server. For example, ../GoldenGateHome. Oracle GoldenGate should be installed in this directory. This will be **Oracle GoldenGate home (OGG_Home)** on the target Oracle Utilities Analytics database server.

Important Note: Make a note of this directory location; it will be used during the Oracle Utilities Analytics installation.

2. Open a **Command** window and set the target ORACLE_SID and ORACLE_HOME variables.

Set LD_LIBRARY_PATH using the following commands:

For Unix:

```
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

For Windows:

```
set LD_LIBRARY_PATH=%ORACLE_HOME%/lib;%LD_LIBRARY_PATH%
```

3. In the **Command** window, change the directory to the **GoldenGate home directory** and execute the command as shown below:

For Unix:

```
./ggsci
```

For Windows:

```
ggsci
```

This opens the Oracle GoldenGate prompt.

4. On the **Oracle GoldenGate** prompt, execute the **create SUBDIRS** command.

-
5. On the **Oracle GoldenGate** prompt, execute the **EDIT PARAMS mgr** command. This opens an editor.
 6. Copy the below contents:
 - PORT 7830
 - DYNAMICPORTLIST 7830-7880

Note: Make sure the mentioned port range (7830-7880) is not in use. If they are in use, provide another available port range.

Note: Make a note of the range start and end ports numbers; it will be used during the Oracle Utilities Analytics installation.

Note: Refer to Oracle GoldenGate documentation if you would like to configure other settings such as **Purge**.
 7. On the **Oracle GoldenGate** prompt, execute the **start mgr** command to start the Oracle GoldenGate manager process.
 8. On the **Oracle GoldenGate** prompt, execute the **info all** command to view the manager process is running.
 9. Exit Oracle GoldenGate by executing **exit** command and create a directory named **diroby** inside the **OGG_Home** directory.

Copying and Decompressing the Install Media

The Oracle Utilities Analytics ETL component based on Oracle Utilities Analytics installation file is delivered in zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator User IDs, you must complete each of the following installation steps for each administrator user ID.

1. Download the Oracle Utilities Analytics version 2.5.1 ETL component based on Oracle Data Integrator part (**Oracle Utilities Analytics V2.5.1ETL component based on ODI Multiplatform.zip**) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the database server host as the Oracle Utilities Analytics Administrator User ID.
3. Create a temporary directory, such as c:\OUA\temp or /OUA/temp (Referred to <TEMPDIR> below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
4. Unzip **Oracle Utilities Analytics V2.5.1ETL component based on ODI Multiplatform.zip** to <TEMPDIR>.
5. Decompress the file **BI.ODI.V2.5.1-MultiPlatform.jar** as follows:
 - cd <TEMPDIR>
 - jar -xvf BI.ODI.V2.5.1-MultiPlatform.jar

Note: It is recommended to have Java JDK installed on the machine used to (un)jar the Oracle Utilities Analytics ETL component based on Oracle Data Integrator installation package. Install the JDK that supports the platform to use the jar command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>. A sub-directory named “BI.ODI.V2.5.1” is created. It contains installation software for the Oracle Utilities Analytics ETL component based on Oracle Data Integrator.

Setting Permissions for the Cistab File in UNIX

Every Oracle Utilities Analytics environment installed on a server must be registered in the `/etc/cistab` file located on that server. On UNIX servers, generally only the root user ID has write permissions to the `/etc` directory. Since the installation process is run by the Oracle Administrator User ID, this user ID may not be able to write to `/etc/cistab` table.

The `install` utility checks permissions and if it identifies a lack of necessary permissions, it generates a script in the `<TEMPDIR>/BI.ODI.V2.5.1` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of `/etc/cistab` file to the Oracle Utilities Analytics Administrator User ID, so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, you do not need to run the generated script with the root user ID. Instead, the `install` utility itself proceeds with the registration.

If you are re-installing an existing environment, only the validation of `/etc/cistab` entry is done by the `install` utility, no new registration occurs. The `install` utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment, you must ensure to take a backup prior to the installation process. The installation utility does not create a backup of the existing environment.

Oracle Utilities Analytics ELT Component based on Oracle Data Integrator Package Installation Steps

Follow these steps to install the Oracle Utilities Analytics package applications after performing the steps to deploy the ELT component objects as described in the section above:

- **Prerequisite Software**
- **Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator**

Prerequisite Software

Before installing the Oracle Data Integrator package, ensure that you have already installed the below-mentioned software products. These software products should be installed on the database server. Also, note the locations of these software products:

- JDK 1.6 update 20 to 35 (`JAVA_HOME`) on the database server
- Oracle Database Home (`ORACLE_HOME`)
- Oracle WebLogic 10.3.6 (`WL_HOME`)
- Oracle Data Integrator 11.1.1.6 with Java EE Installation (`ODI_HOME`)
- Oracle GoldenGate 12.1.2.0.0 software on the source database server and the target database server (`OGG_HOME`)

Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator

Follow the below instructions to install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator:

1. Change the current directory to `<TEMPDIR>/BI.ODI.V2.5.1`.
2. Set the `ORACLE_CLIENT_HOME` and `PATH` variables as Oracle Client Perl. It is required to run the installer (sample commands listed in the point 4 below).
3. Make sure that the user with which Oracle Database Enterprise Edition (or Standard Edition) and all other prerequisite software products were installed, is used to install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator package.
4. Execute the following script for UNIX/Windows:

For UNIX:

Run the following commands:

```
export ORACLE_CLIENT_HOME=<ORACLE_HOME>
export PERL_HOME=$ORACLE_CLIENT_HOME/perl
export PATH=$PATH:$PERL_HOME/bin
ksh ./install.sh
```

Note: Ensure that you have the required the execute permission on install.sh on UNIX.

For Windows:

Run the following commands:

```
set ORACLE_CLIENT_HOME=<ORACLE_HOME>
set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
set PATH=%PERL_HOME%\bin;%PATH%
install.cmd
```

5. The Oracle Utilities Analytics specific menu appears.

6. Select each menu item to configure the values.

For the detailed description of the values, refer to the **Configuration Worksheet for ELT Component based on Oracle Data Integrator Installation**.

Note: All the schema names must be entered in the upper case.

Note: For the parameter 'Target GoldenGate Shared Secret', follow the below instructions.

a. Go to the Oracle GoldenGate prompt and run the command:

```
encrypt password <password of MDADM user>, encryptkey DEFAULT
```

b. Copy the encrypted password returned by the above command and provide it as the value for the Target GoldenGate Shared Secret.

Environment Installation Options:

1. Oracle Client Home Directory:

2. Environment Mount Point:

Log Files Mount Point:

Environment Name:

Web Java Home Directory:

Each item in the above list should be configured for a successful install.

Choose any option from the menu item (1, 2 <P> Process, <X> Exit).

Environment Configuration:

1. Environment Description

Environment Description:

2. ODI Environment Configuration

WEBLOGIC HOME:

ODI HOME:

ODI SUPERVISOR USER: SUPERVISOR

ODI SUPERVISOR Password:

Target Database Name:

Target Database Host:

Target Database Port:1521

DWADM Schema Name: DWADM

DWADM Schema Password: <DWADM Password>

ODI Master Schema Name: MASTER_REPO

ODI Master Schema Password:

ODI Work Schema Name:
ODI Work Schema Password:
ODI Master Repository ID: 601
ODI Work Repository ID: 602
MDADM Schema Name: MDADM
MDADM Schema Password: <MDADM Password>

3. ODI Agent Configuration
ODI Weblogic Agent Host:
ODI Weblogic Agent Port:
4. Target GoldenGate Configuration
Target GoldenGate Manager Port
Target GoldenGate Dynamic Minimum Port:
Target GoldenGate Dynamic Maximum Port:
Target GoldenGate Algorithm:
Target GoldenGate Encryptkey:
Target GoldenGate Shared Secret:
Target Database Home:
Target GoldenGate Home:

Each item in the above list should be configured for a successful install.
Choose any option (1, 2, 3, 4<P> Process, <X> Exit).

Once the parameter setup is completed, proceed with the option **P**.

Once installation is finished successfully, execute the post-installation steps as described in the section **Post-installation Tasks**.

Post-installation Tasks

The following post-installation tasks are discussed in this section:

- **Deploying ELT Component based on Oracle Data Integrator**
- **Generating the Views (Global)**
- **Configuring the Source**
- **Executing the Knowledge Modules (KMs)**
- **Generating the Views (For Source Instance)**
- **Creating the WebLogic Domain for Oracle Data Integrator Agent**
- **Starting the WebLogic Admin Server**
- **Authenticating the Oracle Data Integrator Supervisor User in WebLogic and Starting the Managed Server**

Important Note: Before performing the post-installation tasks, a database directory 'B1_DATA_DUMP_DIR' should be created on the target database. This directory is used for logging the export import task used during the initial ELT load. The following is a sample SQL that creates the database directory pointing to the file system path /scratch/file_data:

```
CREATE DIRECTORY B1_DATA_DUMP_DIR AS '/scratch/file_data';
```

Deploying ELT Component based on Oracle Data Integrator

Follow the sequence of these steps for a successful deployment:

For the Oracle Data Integrator deployment, the script creates the master and work repositories, and imports the Oracle Data Integrator metadata.

Note: The script may take several minutes to complete.

For UNIX:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the **ksh ./deployodi.sh**.

For Windows:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run the **deployodi.cmd**.

Verify the log at the location: <SPLEBASE>/logs/system/deployodi.log file.

Generating the Views (Global)

This step creates global views based on the Oracle Data Integrator metadata.

For UNIX:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the **ksh ./runviewGenerator.sh**.

For Windows:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run the **runviewGenerator.cmd**.

Verify the log at the location: <SPLEBASE>/logs/system/deployodi.log file.

Configuring the Source

Important Note: This step inserts each source instance and instance name into the `b1_prod_instance` table. This step has to be repeated for each source instance that is used.

This step also creates the replication schema in the target database corresponding to each source application. The `$SPLEBASE/bin/obi.properties` file is read to assign the default tablespace to the replication user.

By default, this file has `obiu.repository.default.tablespace = CISTS_01` entry where `CISTS_01` is tablespace name. If you want to assign this tablespace as the default tablespace to replication schema, make sure to create `CISTS_01` tablespace in the target database if it does not exist.

Make sure to edit `obiu.repository.default.tablespace` parameter in the `$$SPLEBASE/bin / obiu.properties` file to another tablespace parameter, which exists in the database and it is considered as the default tablespace for the replication schema. This entry should be changed as follows:

```
obiu.repository.default.tablespace = <Name of tablespace to use>
```

For UNIX:

Perform the following steps:

1. Navigate to the `<Install_Dir>/bin` directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $$SPLEBASE/bin.`
4. Run `ksh ./configureSourceDB.sh -c <Source instance> -u <Source Golden gate owner schema name> -p <Source Golden gate owner schema password> -s <Source Application Schema> -r <Source Application Drill Back URL>.`

For Windows:

Perform the following steps:

1. Navigate to the `<Install_Dir>/bin` directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %$SPLEBASE%\bin.`
4. Run `configureSourceDB.cmd -c <Source instance> -u <Source Golden gate owner schema name> -p <Source Golden gate owner schema password> -s <Source Application Schema> -r <Source Application Drill Back URL>.`

Where,

- Source instance = Name for the source instance being added

For Oracle Utilities Operational Device Management source application, the valid values are ODM1,ODM2.....ODM9. Provide any of these values, which is already not configured. Make a note of these parameters; it will be used in the next deployment steps.

For Oracle Utilities Network Management System application, the valid values are NMS1,NMS2.....NMS9. Provide any of these values, which is already not configured.

For Oracle Utilities Customer Care and Billing application, the valid values are CCB1,CCB2.....CCB9. Provide any of these values, which is already not configured.

- Source _Schema User = <GoldenGate Owner created in Source database> For example: ODM01SRC.
- Source _Schema User _Password = GoldenGate Owner password.
- Source Application Schema = Source Application Schema (For example, CISADM).
- Source Application Drill Back URL = Source Application URL (`http://<Host>:<Port>/ouaf/`).

This opens a source configuration menu as shown below. Select each menu item to configure the values.

For the detailed description of the values, refer to the **Configuration Worksheet for ELT Component based on Oracle Data Integrator Installation**.

Note: For the parameter 'Source GoldenGate Shared Secret', follow the below instructions.

a. Go to GoldenGate prompt and run the command:

```
encrypt password <password of source GoldenGate owner user>,  
encryptkey DEFAULT.
```

b. Copy the encrypted password returned by the above command and provide it as the value for the Source GoldenGate Shared Secret.

Environment Configuration:

1. Source GoldenGate Configuration

Source Instance Name:

Source GoldenGate Manager Port:

Source GoldenGate Dynamic Minimum Port:

Source GoldenGate Dynamic Maximum Port:

Source GoldenGate Algorithm:

Source GoldenGate Encryptkey:

Source GoldenGate Shared Secret:

Source Database Name:

Source Database Host:

Source Database Port:

Source Database Home:

Source GoldenGate Home:

Each item in the above list should be configured for a successful install.

Choose any option (1, <P> Process, <X> Exit).

Once the parameter setup is completed, proceed with the option P.

Verify the log at the location: <SPLEBASE>/logs/system/deployodi.log file.

Executing the Knowledge Modules (KMs)

This step is run to reverse engineer the source tables, journalizing setup, and to create the Oracle GoldenGate scripts. This step has to be repeated for each source instance that will be used.

Note: The script may take several minutes to complete.

For Unix:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the `ksh ./initiateSetup.sh -c <Source Instance>`.

Where Source instance = Instance name given to the source in the step **Configuring the Source** above. For example: ODM1.

5. The initial load process can be started now to copy data from the source database into the replication schema in the data warehouse.

The list of the source tables being replicated can be found in the *Data Mapping Guide*.

Note: For the source tables list, refer to *Oracle Utilities Extractors and Schema Data Mapping Guide for Oracle Utilities Operational Device Management* or *Oracle Utilities Extractors and Schema Data Mapping Guide for Oracle Utilities Customer Care and Billing*.

In `$$SPLEBASE/GGScriptsGen` directory, you will find a folder starting with the instance name.

Go to the folder that has the name starting with the instance name.

For example: `$$SPLEBASE/GGScriptsGen/ODM1AA`

Note: Refer to the **ReadMe.txt** generated in the above-mentioned directory for the detailed instructions on how to run the Oracle GoldenGate scripts and how to start the initial and the incremental loads.

Note: Ensure that `ORACLE_SID`, `ORACLE_HOME` and `LD_LIBRARY_PATH` are set before running the Oracle GoldenGate scripts on both the source and the target database servers.

Note: During the Oracle GoldenGate script execution, you might get error message (ERROR: OCI Error ORA-00955: name is already used by an existing object (status = 955) related to the **B1_CHECKPOINT** table. It should be ignored.

Note: When using Oracle Database 12c, if the Oracle GoldenGate processes fails, verify the logs to check whether it is because of a DDL replication error. If it is due to a DDL replication error, restart the Oracle GoldenGate process until it succeeds.

Note: The generated Oracle GoldenGate scripts need minor modifications when using Oracle Automatic Storage Management (ASM). Refer to Oracle GoldenGate installation documentation for more details.

For Windows:

Perform the following steps:

1. Navigate to the `<Install_Dir>/bin` directory.
2. Initialize the environment with the `./splenvron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin`.
4. Run the **initiateSetup.cmd -c <Source instance>**.

Where Source instance = Instance name given to the source in the step **Configure Source** mentioned above. For example: ODM1

5. The initial load process can be started now to copy the data from the source database into the replication schema in the data warehouse.

The list of the source tables being replicated can be found in the *Data Mapping Guide*.

Note: For the source tables list, refer to *Oracle Utilities Extractors and Schema Data Mapping Guide for Oracle Utilities Operational Device Management* or *Oracle Utilities Extractors and Schema Data Mapping Guide for Oracle Utilities Customer Care and Billing*.

In the `$$SPLEBASE/GGScriptsGen` directory, you will find a folder starting with the instance name.

Go to the folder that has name starting with the instance name.

For example: `$$SPLEBASE/GGScriptsGen/ODM1AA`

Note: Refer to the **ReadMe.txt** generated in the above-mentioned directory for the detailed instructions on how to run the Oracle GoldenGate scripts and how to start the initial and the incremental loads.

Note: Ensure that ORACLE_SID and, ORACLE_HOME and LD_LIBRARY_PATH are set before running the Oracle GoldenGate scripts on both the source and the target database servers.

Note: During the Oracle GoldenGate script execution, you might get error message (ERROR: OCI Error ORA-00955: name is already used by an existing object (status = 955)) related to the **B1_CHECKPOINT** table. It should be ignored.

Note: When using Oracle Database 12c, if the Oracle GoldenGate processes fails, verify the logs to check whether it is because of a DDL replication error. If it is due to a DDL replication error, restart the Oracle GoldenGate process until it succeeds.

Note: The generated Oracle GoldenGate scripts need minor modifications when using Oracle Automatic Storage Management (ASM). Refer to Oracle GoldenGate installation documentation for more details.

Generating the Views (For Source Instance)

This step creates the views for a given source instance. These views are used for replication. This step needs to be executed once for each source configured.

For Unix:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.sh -e <envname> command.
3. cd \$SPLEBASE/bin.
4. Run the **runviewGenerator.sh -c <Source Instance>**.

For Windows:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.cmd -e <envname> command.
3. cd %SPLEBASE%\bin.
4. Run the **runviewGenerator.cmd -c <Source instance>**.

Where Source instance = Instance name given to the source in the **Configure Source** step mentioned above. For example: ODM1

Note: After the completion of the Oracle Utilities Analytics deployment, if there are any changes done to the source configuration, the above script has to be executed for that source context to get them applied to Oracle Utilities Analytics.

Creating the WebLogic Domain for Oracle Data Integrator Agent

The WebLogic Domain should be created for bringing up the WebLogic Agent (ODI Agent) to complete the steps.

Perform the following steps to bring up the WebLogic ODI Agent, which is created in the step **Deploying ELT Component based on Oracle Data Integrator**.

1. Navigate to the Oracle Data Integrator (ODI) installed location <MW_HOME>/Oracle_ODI1\common\bin, run the below command and follow the steps to provide the masterschema and workschema provided in the configuration.

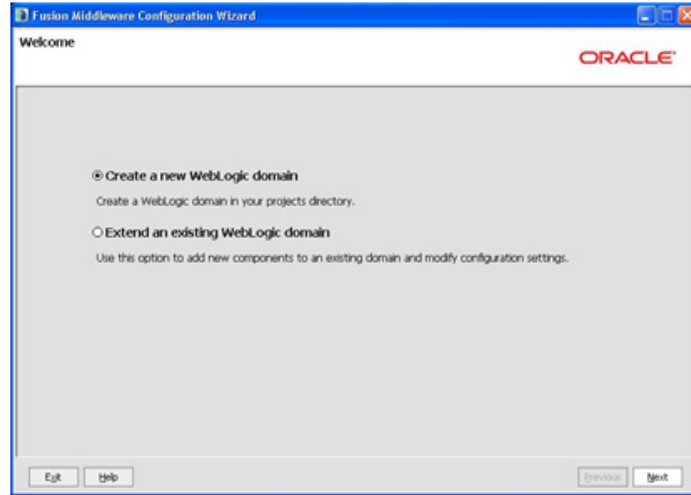
For Unix:

- Run ./Config.sh

For Windows:

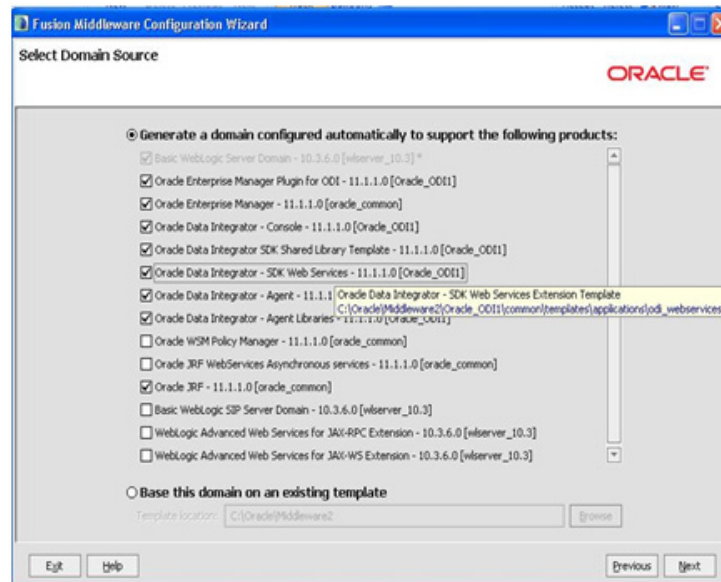
- Run Config.cmd

2. Create a new WebLogic domain.



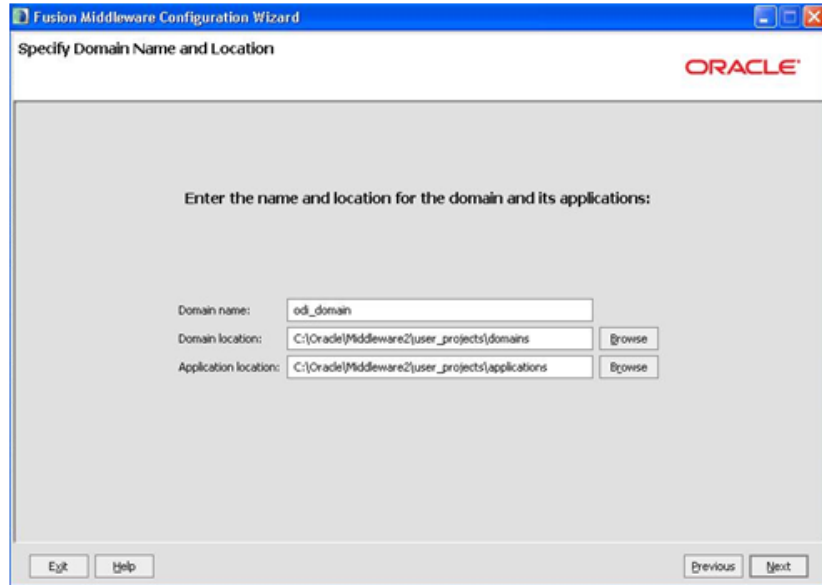
Click **Next**.

3. Generate a domain configured automatically to support the following products. Select the checkboxes for the below mentioned plugins. When these plugins are selected, some automatic plugins also get selected.
 - Oracle Enterprise Manager Plugin for Oracle Data Integrator -11.1.1.0
 - Oracle Data Integrator - Console - 11.1.1.0
 - Oracle Data Integrator Agent - 11.1.1.0
 - Oracle Data Integrator - SDK Web Services - 11.1.1.0



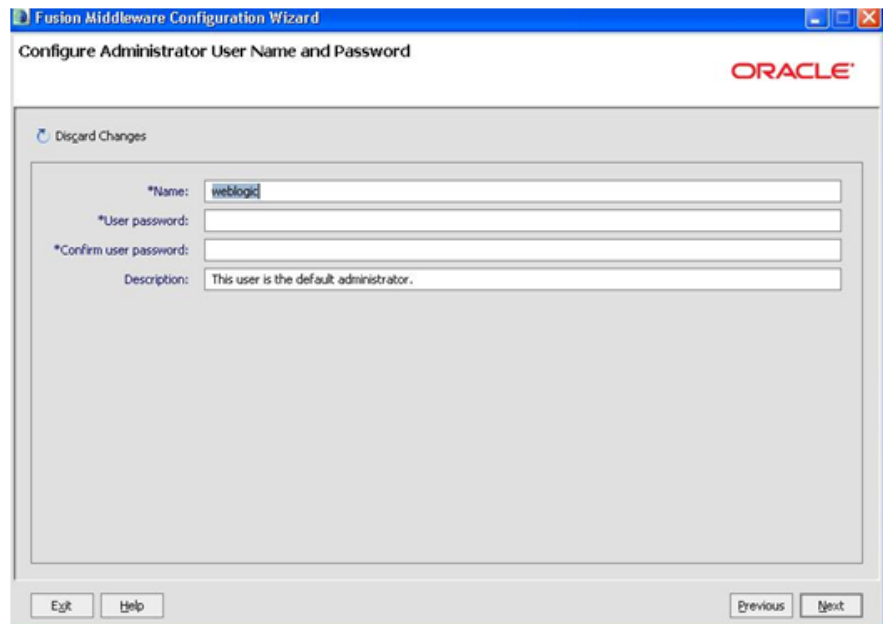
Then, click **Next** to proceed.

4. On the **Specify Domain Name and Location** page, complete the following:
 - Provide the domain name: odi_domain
 - Location will be default



Click **Next** to proceed.

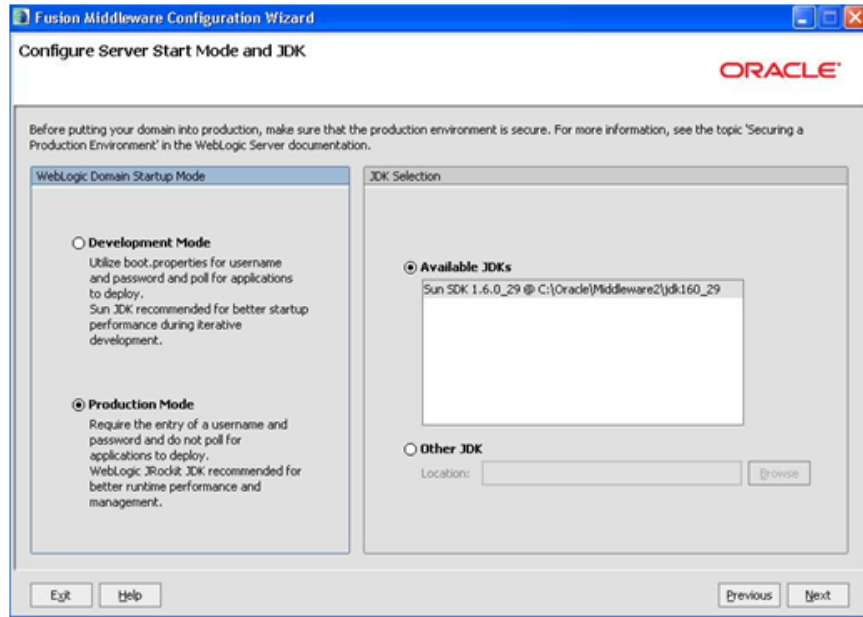
5. Configure the **Administrator User Name** and **Password** for the WebLogic. Provide the WebLogic password.



Click **Next**.

6. Configure the **Server StartUp Mode** and **JDK**:
 - Select the **Production Mode** option.

- Provide the **JDK 1.6.0_20**



7. Configure the **JDBC Component Schema**.

Select only the **ODI Master Schema** checkbox. Provide the below details:

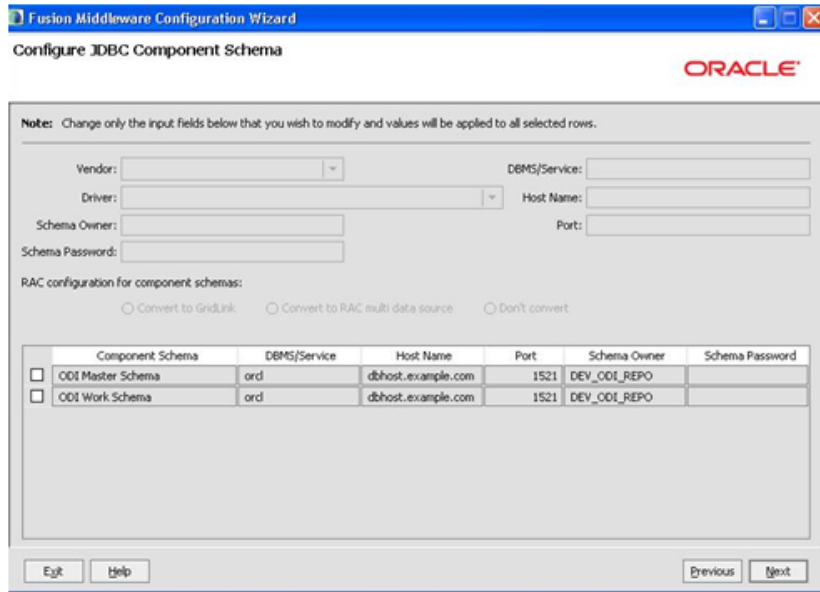
- DBMS/Service: Target Database Name
- Host Name: Database Serverhost
- Port: Database Port
- Schema Owner: MASTER_REPO
- Schema Password: MASTER_REPO Password

8. Deselect the **ODI Master Schema** checkbox.

9. Select the **ODI Work Schema** checkbox. Provide the below details:

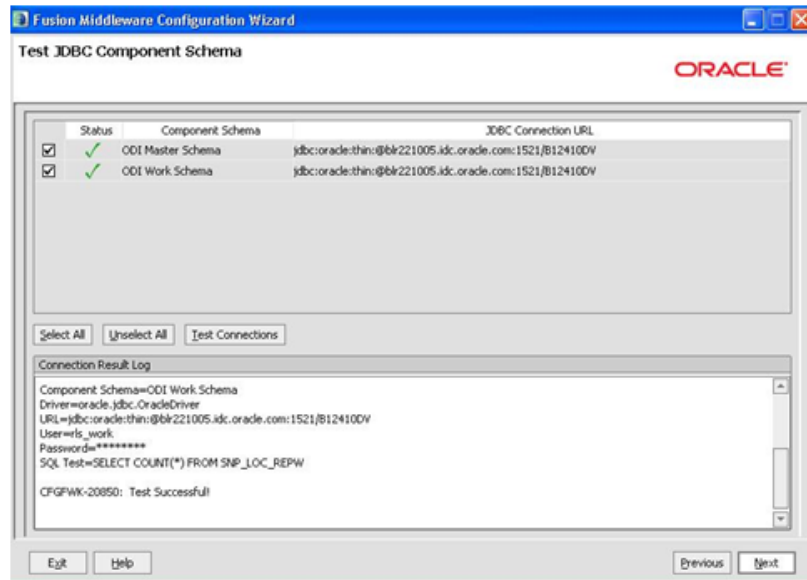
- DBMS/Service: Target Database Name
- Host Name: Database Serverhost
- Port: Database Port
- Schema Owner: WORK_REPO

- Schema Password: WORK_REPO Password



Click **Next** to proceed.

10. Test the **JDBC Component Schema** by selecting the **Select All** and the **Test Connections**.

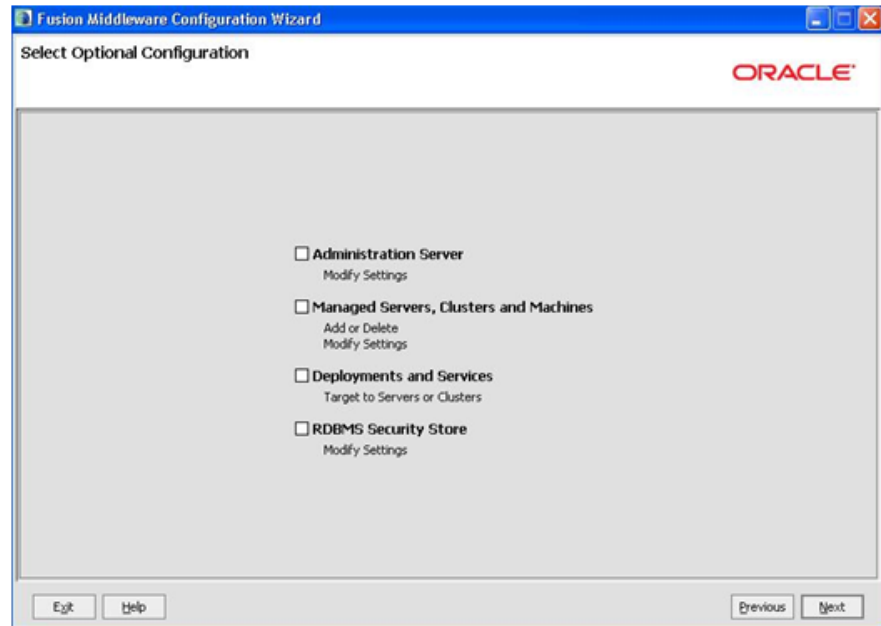


Click **Next** to proceed.

11. Select the **Optional Configuration**:

- Select the checkboxes:
 - **Administration Server**

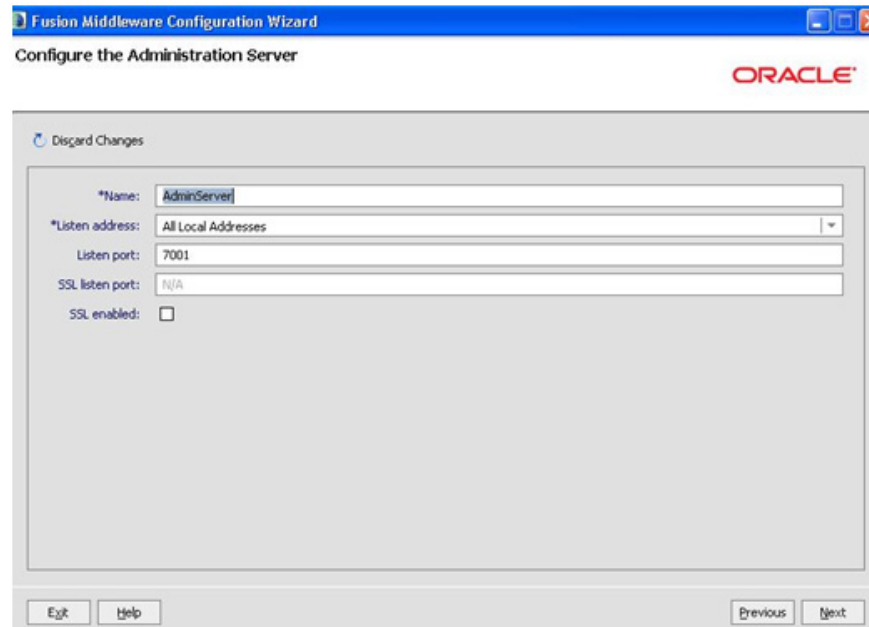
- **Managed Server, Clusters and Machines**



Select **Next** to proceed.

12. Configure the **Administration Server**:

- Provide the **Listening Port**, which is not in use.

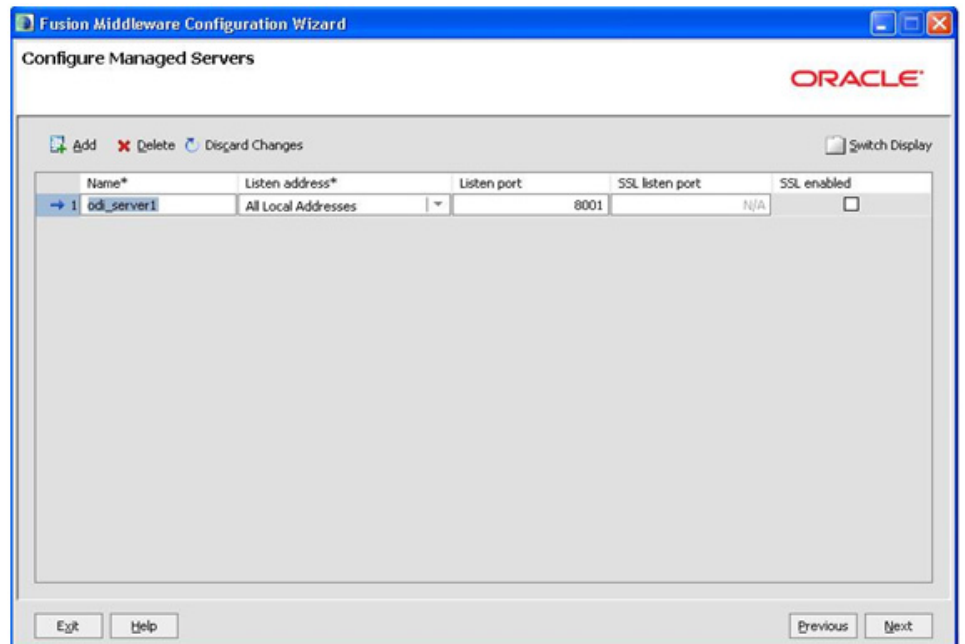


Click **Next** to proceed.

13. Configure the **Managed Servers** by providing the following:

- **Name:** odi_server1
- **Listen Address:** All Local Addresses

- **Port:** <Provide the port, which is configured in the menu configuration of the installation step (**ODI Agent Configuration > ODI WebLogic Agent Port**)>



14. Configure the **Cluster**.
Click **Next**.
15. Configure the **Machines**.
Click **Next**.
16. Assign the **Servers** to **Machines**.
Click **Next**.
17. On the **Configuration Summary** page, click **Create** to create the domain odi_domain.
18. After the domain is created, go to the domain location, create the **boot.properties** file for WebLogic login. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security folder if not present.
19. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security, then create **boot.properties** file with the below values:
 - username=weblogic
 - password=Weblogic password
20. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/odi_server1/security folder if not present.
21. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/odi_server1/security, and then create **boot.properties** file with the below values:
 - username=weblogic
 - password=Weblogic password

Starting the WebLogic Admin Server

Perform the following steps:

1. In the command shell, change the directory to the directory of the WLS Home - <MW_HOME>/user_projects/domains/odi_domain/bin.
2. Execute the **startweblogic** command for UNIX and Windows:

For Unix:

```
nohup ./startWebLogic.sh > startWebLogic.log &
```

For Windows:

```
startWebLogic.cmd
```

Authenticating the Oracle Data Integrator Supervisor User in WebLogic and Starting the Managed Server

Perform the following steps:

1. Go to <MW_HOME>/oracle_common/common/bin.
2. Execute the following command:

For Unix:

```
./wlst.sh
```

For Windows:

```
wlst.cmd
```

3. To connect to the running Admin server, execute the following command:

```
connect('<Weblogic User>', '<Weblogic password>', 't3://<WEBLOGICHOST>:<WEBLOGIC ADMIN PORT>')
```

For example: `connect('weblogic','weblogic123','t3://localhost:7001')`

4. Execute the following command to add the correct credential store for the Oracle Data Integrator Supervisor:

```
createCred (map="oracle.odi.credmap", key="SUPERVISOR", user="SUPERVISOR", password="<SUPERVISOR Password>", desc="ODI SUPERVISOR Credential")
```

5. To exit **WebLogic Scripting Tool (WLST)**, execute the `exit ()` command.

To start managed server `odi_server1`

Perform the following steps:

1. To start managed server `odi_server1`, change the directory to the WLS Home:

```
<MW_HOME>/user_projects/domains/odi_domain/bin
```

Execute the below commands:

For Unix:

```
nohup ./startManagedWebLogic.sh odi_server1 > StartManagedWeblogic.log &
```

For Windows:

```
StartManagedWeblogic.cmd odi_server1
```

2. From the **Oracle Data Integrator Studio**, navigate to **Topology > Agents > OracleDI Agent**. Right-click on **OracleDI Agent** and click **Test** to test connectivity of configured Oracle Data Integrator Java EE agent.

Generating Security and Starting Oracle Data Integrator Scheduler

Perform the following steps:

1. Edit the database name with the name of your database in **OraGenSec.bat** and run it from the BI251/DWADM/Security folder.
2. Log into **Oracle Data Integrator Studio** and navigate to **Designer > Load Plans and Scenarios > Framework**.
3. Right-click the **B1_INITIAL_SETUP_PKG Version 001** and execute.
4. Select **global** as context, **WLS_AGENT** as logical agent, and then click **OK**.
5. Go to the **Operator** and view the logs for successful execution of the package.
6. In **Oracle Data Integrator Studio**, navigate to **Designer > Load Plans and Scenarios > Framework > B1_RUN_ALL Version 001 > Scheduling**.
7. Right-click scheduling and select **New Scheduling** option.
8. Select the source context as global, agent as **WLS_AGENT** and the log level as 1.
9. To specify how often the scheduler should run, navigate to the **Execution Cycle** tab of the Scheduler and select the '**Many Times**' option. Set the interval between repetitions.
10. Navigate to **Topology > Agents > OracleDIAgent**.
11. Right-click on **OracleDIAgent** and click **Update Schedule**.

Installing Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder

This section describes how to install the Oracle Warehouse Builder based ETL component of Oracle Utilities Analytics.

Note 1: Ensure that the same Operating System (OS) user is used to install the Oracle Utilities Analytics ETL component that is used to install all the related software. Refer to the section **Prerequisite Software for Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder**.

Note 2: You should install the Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder (OWB) only if you are using Oracle Utilities Work and Asset Management, Oracle Utilities Meter Data Management, or Oracle Utilities Mobile Workforce Management as the source application.

Note 3: To use Oracle Database Server 12.1.0.1.0 with Oracle Warehouse Builder based ETL, install standalone Oracle Warehouse Builder software and apply the patch 16568042 to Oracle Warehouse Builder home. In case of 11g database, ORACLE_HOME and OWB_HOME are the same, but with 12.1.0.1.0 database it requires standalone installation of Oracle Warehouse Builder; hence, ORACLE_HOME and OWB_HOME are different.

This section includes the following:

- **Copying and Decompressing the Install Media**
- **Setting Permissions for the Cistab File in UNIX**
- **Creating and Configuring the Oracle Warehouse Builder Workspace**
- **Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder Package Installation Steps**
- **Post-installation Tasks**

Copying and Decompressing the Install Media

The Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder installation file is delivered in a zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator User IDs, you must complete each of the following installation steps for each Administrator User ID.

1. Download the Oracle Utilities Analytics version 2.5.1 ETL Component based on Oracle Warehouse Builder part (Oracle Utilities Analytics V2.5.1ETL Component Based on OWB Multiplatform.zip) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the database server host as the Oracle Utilities Analytics Administrator User ID (default cases).
3. Create a temporary directory, such as `c:\OUA\temp` or `/OUA/temp` (Referred to <TEMPDIR> below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
4. Unzip the zip file **Oracle Utilities Analytics V2.5.1ETL Component Based on OWB Multiplatform.zip** to <TEMPDIR>.
5. Decompress the file **BI.OWB.V2.5.1-MultiPlatform.jar** as follows:
 - `cd <TEMPDIR>`
 - `jar -xvf BI.OWB.V2.5.1-MultiPlatform.jar`

Note: You should have Java JDK installed on the machine used to (un)jar the Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>. A sub-directory named "**BI.OWB.V2.5.1**" is created. It contains the installation software for the Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder.

Setting Permissions for the Cistab File in UNIX

Every Oracle Utilities Analytics environment installed on a server must be registered in the `/etc/cistab` file located on that server. On UNIX servers, generally only the root user ID has write permissions to the `/etc` directory. Since the installation process is run by the Oracle Administrator User ID, this user ID may not be able to write to `/etc/cistab` file.

The install utility checks permissions and if it identifies a lack of necessary permissions, it generates a script in the `<TEMPDIR>/BI.OWB.V2.5.1` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of `/etc/cistab` file to the Oracle Utilities Analytics Administrator User ID, so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are re-installing an existing environment, only the validation of `/etc/cistab` entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment, you must ensure to take a backup prior to the installation process. The installation utility does not create a backup of the existing environment.

Creating and Configuring the Oracle Warehouse Builder Workspace

This section describes how to create and configure the Oracle Warehouse Builder workspace.

Before creating/configuring workspace, perform the following steps:

1. Execute the following command to configure the workflow in the database.

For Unix:

```
$OWB_HOME/owb/wf/install/wfinstall.csh
```

For Windows:

```
%OWB_HOME%/owb/wf/install/wfinstall.bat
```

This launches a configuration dialog in which you are asked to enter the user name and password.

2. Enter **OWFMGR** as a user and a password for **OWFMGR** user.
3. Specify the TNS connect string of the database in the following format.

```
hostname:port:sid
```

To configure Oracle Warehouse Builder (OWB), perform the following steps:

1. Execute **cat_owb.sql** as sysdba from the **<OWBHOME>/owb/UnifiedRepos** directory if the database version is 12.1.0.1.0.
2. Unlock the **OWBSYS** and **OWBSYS_AUDIT** accounts if this has not already been done. Connect to the Sys User and execute the following commands:

```
ALTER USER OWBSYS IDENTIFIED BY OWBSYS ACCOUNT UNLOCK; ALTER USER  
OWBSYS_AUDIT IDENTIFIED BY OWBSYS_AUDIT ACCOUNT UNLOCK;
```

3. Run the **\$OWB_HOME/owb/bin/unix/reposinst.sh** command for UNIX from the database server.

OR

Invoke the repository assistant from **Warehouse Builder > Administrator for Windows** from the database server or client.

4. Provide the following information:
 - Database connection details and click **Next**.
 - Select **Manage Warehouse Builder Workspaces** and click **Next**.
 - Select **Create a new Warehouse Builder Workspace** and click **Next**.
 - Select **Workspace with a new user** as the workspace owner.
 - Provide the system user password.
5. Check only **Data Integrator Enterprise Edition on Enable Optional** features, and then specify the following details:
 - Workspace Owner's User Name: BIREPOWN
 - Workspace Owner's Password: BIREPOWN
 - Workspace Name: SPLBIREP
 - Provide OWBSYS Password:

Note: Workspace name should be SPLBIREP. Do not change the workspace name.

6. Execute `<OWBHOME>/owb/UnifiedRepos /remote_owb_install.sql` after logging in to the sys user. When prompted for Oracle Home for Remote Oracle Warehouse Builder software, provide the location of Oracle Warehouse Builder Oracle Home.
7. Provide the tablespace info for the Oracle Warehouse Builder workspace schema.
8. Select the **Language** (American Language).
9. Select the **Target Schema (DWADM)** and the **Workflow Schema (OWFMGR)** from the available Repository Users List and move them to **Selected**. This will register the DWADM and OWFMGR schemas with the workspace.
10. On the same page, click **Create New User** to create a new workspace user. Specify the following details:
 - User Name: BIREPO
 - Password: BIREPO
11. Review the information, and then click **Finish** to complete the workspace configuration.
12. Modify the contents of the `<owb-home>/owb/bin/admin/Runtime.properties` file from the following to the contents mentioned later.

```
property.RuntimePlatform.0.NativeExecution.FTP.security_constraint
= DISABLED
property.RuntimePlatform.0.NativeExecution.Shell.security_constraint =
DISABLED
property.RuntimePlatform.0.NativeExecution.SQLPlus.security_constraint
=DISABLED
```

To

```
property.RuntimePlatform.0.NativeExecution.FTP.security_constraint
= NATIVE_JAVA
property.RuntimePlatform.0.NativeExecution.Shell.security_constrai
nt = NATIVE_JAVA
property.RuntimePlatform.0.NativeExecution.SQLPlus.security_constr
aint = NATIVE_JAVA
```

13. Connect to the OWBSYS user, and execute the `<owb-home>/owb/ntp/sql/stop_service.sql`.
14. Connect to the OWBSYS user, and execute the `<owb-home>/owb/ntp/sql/start_service.sql`.
15. Connect to the database with the sys user, and execute the following procedures:

Note: Before executing these procedures, modify `<SMTP SERVER>` and `<SMTP PORT>` to appropriate values.

```
EXECUTE
DBMS_NETWORK_ACL_ADMIN.CREATE_ACL('acl_for_owb_cc.xml','ACL for
Control Center','OWBSYS', TRUE, 'connect');

EXECUTE
DBMS_NETWORK_ACL_ADMIN.ASSIGN_ACL('acl_for_owb_cc.xml',<SMPT SERVER>,
<SMPT PORT>);
COMMIT;
```

16. Execute the following:

```
SELECT
acl,host,
DECODE(DBMS_NETWORK_ACL_ADMIN.check_privilege_aclid(aclid,'OWBSYS',
'connect'),1, 'GRANTED', 0, 'DENIED', NULL) privilege
FROM dba_network_acls ;
```

You will see the following:

```
/sys/acls/acl_for_owb_cc.xml  
<SMPT SERVER> GRANTED
```

17. Connect to the BIREPOWN user, and run the `spl_exec_wf_prc.sql` located in `./BI251/Scripts`.
18. Connect to the database with the sys user, and execute the `owb_grants_synonyms.sql` located in `./BI251/Scripts`.

Note: Ignore errors that are caused when trying to drop synonyms that these do not exist.

Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder Package Installation Steps

Important Note: During the Oracle Warehouse Builder installation, if the target DB is 12c, Oracle Warehouse Builder based ETL component should be installed in a separate Oracle Utilities Analytics environment (do not use the Oracle Utilities Analytics environment where Oracle Data Integrator based ELT component and Dashboard component are installed). During configuration of Oracle Warehouse Builder component, provide Oracle Warehouse Builder home as the DB home. This is needed for the `owbdeploy` script to pick the Oracle Warehouse Builder executables from the right location. If the target DB is 11g, there are no such restrictions. Oracle Warehouse Builder can be installed in the same Oracle Utilities Analytics environment as other components (Oracle Data Integrator based ELT component and Dashboard component). In this case, provide 11g DB home during the Oracle Warehouse Builder configuration.

After performing the above outlined steps, follow these steps to install the Oracle Utilities Analytics ETL Component based on the Oracle Warehouse Builder package:

1. Change the current directory to `<TEMPDIR>/BI.OWB.V2.5.1`.
2. Set the `ORACLE_CLIENT_HOME` and `PATH` variables as Oracle Client Perl. It is required to run the installer (steps mentioned in point 4 below).
3. Make sure that the user with which Oracle Database Enterprise Edition 11.2.0.3 /12.1.0.1.0 was installed, is used to install the Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder package.
4. Execute the following script:

For Unix:

Perform the following steps:

- `export ORACLE_CLIENT_HOME=<OWB_HOME>`
- `export PERL_HOME=$ORACLE_CLIENT_HOME/perl`
- `export PATH=$PATH:$PERL_HOME/bin`
- Run the `ksh ./install.sh`

Note: Ensure that you have the required execute permission on `install.sh`.

For Windows:

Perform the following steps:

- `set ORACLE_CLIENT_HOME=<OWB_HOME>`
- `set PERL_HOME=%ORACLE_CLIENT_HOME%\perl`
- `set PATH=%PERL_HOME%\bin;%PATH%`

-
- Run **install.cmd**
5. The Oracle Utilities Analytics specific menu appears.
 6. Select each menu item to configure the values. For the detailed description of the values, see **Configuration Worksheet for ETL Component based on Oracle Warehouse Builder Installation**.

Note: All the schema names must be entered in the upper case.

Environment Installation Options:

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

For successful installation, each item in the above list should be configured. Choose any menu option (1, 2 <P> Process, <X> Exit).

Environment Configurations:

1. Environment Description
Environment Description:
2. Database Configuration
OWB WorkSpace Owner:
OWB WorkSpace Owner Password: Database Name:
Database Server: Database Port:
3. Design Repository Configuration
OWB WorkSpace User:
OWB Workspace user Password:
OWB WorkSpace Name:
DWADM SCHEMA NAME:
DWADM SCHEMA Password:
WORKFLOW MANAGER SCHEMA NAME:
WORKFLOW MANAGER SCHEMA Password:
4. Database character set configuration
Database Character set: AL32UTF8
5. Editing process flow configuration
Repository Operating System:
Perl Compiler location:
Data and control files location:
Separator to be used:
File Manager location:
6. Email Configuration
Email ID of Sender:
Email ID for Reply-To address:
Email ID of Receiver:
SMTP server:
SMTP server port:
7. Control Centre Configuration
Repository Control Center Name:
8. External Data Source Configuration
Path of the External Datasource:
Path of the External Datasource LOG:
File Processor Daemon Execution Switch: 1

File Processor Extract Max Load: 5
File Processor Scheduler Poll Duration: 60

For successful installation, each item in the above list should be configured. Choose any menu option (1, 2, 3, 4, 5, 6, 7, 8 <P> Process, <X> Exit).

After completing the parameter setup, proceed with the option **P**. Write to the configure file.

Once installation is successful, execute the post-installation steps as described in the section **Post-installation Tasks**.

Post-installation Tasks

The following post-installation tasks are discussed in this section:

- **Deploying the ETL Workflows on Oracle Warehouse Builder**
- **Deploying the Materialized Views**
- **Executing the Init Package**
- **Starting the File Processor**
- **Generating the Security**
- **Generating the Database Statistics**

Deploying the ETL Workflows on Oracle Warehouse Builder

Deploy the ETL workflows to the target BI database configured in Oracle Utilities Analytics package installation. In UNIX, you may get a Java heap space error while importing the MDL file.

To resolve this error, you are required to make changes in the OMBPlus.sh file, located at: \$OWB_HOME/owb/bin/ unix/OMBPlus.sh.

In the following code, change the value -Xmx768M to -Xmx1024M, and then the -Dlimit value 768M to 1024M.

```
$JAVAPATH/bin/java $JAVA64FLAG -Xms64M -Xmx768M $OPTS -Dlimit=768M
- DORACLE_HOME=$ORACLE_HOME -DOWBCC_HOME=$ORACLE_HOME -
DTCLLIBPATH="$TCLLIBPATH" -
DMARATHON_RETRY_COUNT="$MARATHON_RETRY_COUNT" -
DMARATHON_RETRY_INTERVAL="$MARATHON_RETRY_INTERVAL"
$CLASSPATH_LAUNCHER oracle.owb.scripting.OMBShell $*
```

You may need to make this value larger than 1024MB (1GB) depending on the size of the import.

Perform the following task:

Review the parallel-*.txt files located under the \$SPLBASE/etc folder to set the degree of parallelism. The files are in the parallel*.txt format to change the <Degree> of parallelism.

```
parallel-tables.txt file format: <Object_name>:<Degree>
parallel-mvs.txt file format: : <MV_Name>:<Fact_Table>:<Degree>
parallel-maps.txt file format:<Object_name>:<Table_Name>:<Degree>
```

Note: The script may take several minutes to complete.

For UNIX:

Perform the following:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenv.sh -e <envname> command.
3. cd \$SPLBASE/bin.
4. Run the **ksh ./Owbdeploy.sh**.

For Windows:

Perform the following:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.cmd -e <envname> command.
3. cd %SPLEBASE%\bin.
4. Run the **Owbdeploy.cmd**.

Deploying the Materialized Views

Perform the following:

For UNIX:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.sh -e <envname> command.
3. cd \$SPLEBASE/bin.
4. Run the **ksh ./installViews.sh**.
5. Once the deployment is complete, remove the content inside this directory \$SPLEBASE/tmp to ensure that all files are removed.

For Windows:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.cmd -e <envname> command.
3. cd %SPLEBASE%\bin.
4. Run the **installViews.cmd**.
5. Once the deployment is complete, remove the content inside this directory %SPLEBASE%\tmp to ensure that all files are removed.

Executing the Init Package

Perform the following steps:

1. Login to the Oracle Warehouse Builder repository.
2. Navigate to **Tools > Control Center Manager > SPL_BI_WF_LOC > SPL_BI_WF > INIT_PKG**.
3. Right-click on each workflow in **INIT_PKG**, except **OUBIWF_PURGE_RT_AUDIT** and click the **Start** option.

For example, right-click **LOAD_DATE** and click **Start**.

Starting the File Processor

Perform the following steps:

For UNIX:

```
cd $SPLEBASE/bin
nohup ksh ./startFileprocessordaeomon.sh >&1 &
```

For Windows:

```
startFileprocessordaeomon.cmd
```

Note: Go to <SPLEBASE>/logs/system to view the file processor log.

Generating the Security

Edit the database name with the name of your database in **OraGenSec.bat** after completing the Oracle Warehouse Builder deployment and run it from BI251/DWADM/Security folder.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

Installing Oracle Utilities Analytics Dashboard Component

Note: Ensure that the same Operating System (OS) user is used to install the Oracle Utilities Analytics Dashboard component that is used to install all the prerequisite software. Refer to the section **Prerequisite Software for Oracle Utilities Analytics Dashboard Component**.

This section describes how to install the database component of Oracle Utilities Analytics. The section includes the following:

- **Copying and Decompressing the Install Media**
- **Oracle Utilities Analytics Dashboard Package Installation Steps**
- **Post-installation Tasks**

Copying and Decompressing the Install Media

The Oracle Utilities Analytics Dashboard Component installation file is delivered in zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator User IDs, you must complete each of the following installation steps for each Administrator User ID.

1. Download the Oracle Utilities Analytics V2.5.1Dashboard Component part (**Oracle Utilities Analytics V2.5.1Dashboard Component Multiplatform.zip**) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the application server host (where Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 software is installed) as the Oracle Utilities Analytics Administrator User ID (default cases).
3. Create a temporary directory, such as c:\OUA\temp or /OUA/temp (Referred in the step 3 below as <TEMPDIR>). This directory must be located outside any current working Oracle Utilities application environment. All files placed in this directory as a part of the installation procedure can be deleted after completing a successful installation.
4. Copy the file **BI.OBIEE.V2.5.1-MultiPlatform.jar** from the delivered package to the <TEMPDIR>. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
5. Decompress the file:

```
cd <TEMPDIR>
```

```
jar -xvf BI.OBIEE.V2.5.1-MultiPlatform.jar
```

Note: You should have Java JDK installed on the machine used to (un)jar the application server installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>

A sub-directory named “BI.OBIEE.V2.5.1” is created. It contains the installation software for the Oracle Utilities Analytics Dashboard component.

Setting Permissions for the Cistab File in UNIX

Every Oracle Utilities Analytics environment installed on a server must be registered in the `/etc/cistab` file located on that server. On the UNIX servers, generally only the root user ID has write permissions to the `/etc` directory. Since the installation process is run by the Oracle Administrator User ID, this user ID may not be able to write to `/etc/cistab` table.

The `install` utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the `<TEMPDIR>/BI.OBIEE.V2.5.1` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of `/etc/cistab` file to the Oracle Utilities Analytics Administrator User ID, so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, you do not need to run the generated script with the root user ID. Instead, the `install` utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of `/etc/cistab` entry is done by the `install` utility, no new registration occurs. The `install` utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment, it is recommended that you take a backup prior to the installation process. The installation utility does not create a backup of the existing environment.

Oracle Utilities Analytics Dashboard Package Installation Steps

Note: Before installing verify that the steps in **Prerequisite Software for Oracle Utilities Analytics Dashboard Component** are followed.

To install the Oracle Utilities Analytics Dashboard package, follow these steps.

1. Change the current directory to `<TEMPDIR>/BI.OBIEE.V2.5.1`.
2. Set the `ORACLE_CLIENT_HOME` and `PATH` variables as Oracle Client Perl. It is required to run the installer.

For UNIX:

Perform the following steps:

- `export ORACLE_CLIENT_HOME=<ORACLE_HOME>`
- `export PERL_HOME=$ORACLE_CLIENT_HOME/perl`
- `export PATH=$PATH:$PERL_HOME/bin`
- Run the **ksh** `./install.sh`

Note: Ensure that you have the proper execute permission on `install.sh`.

For Windows:

Perform the following steps:

- `set ORACLE_CLIENT_HOME=<oracle_client_home>`
- `set PERL_HOME=%ORACLE_CLIENT_HOME%\perl`
- `set PATH=%PERL_HOME%\bin;%PATH%`
- Run the **Install.cmd**
- The Oracle Utilities Analytics specific menu appears.
- Select each menu item to configure the values. For the detailed description of the values, see **Configuration Worksheet for Dashboard Component Installation**.

Environment Installation Options

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

For successful installation, each item in the above list should be configured. Choose any menu option (1, 2, <P> Process, <X> Exit).

For the detailed description of the values, see **Configuration Worksheet for Dashboard Component Installation**.

Note: All the schema names must be entered in the upper case.

Environment Configuration

1. Environment Description
Environment Description:
2. OBIEE Environment Configuration
Oracle BI Instance Home
Oracle BI Home
Oracle BI Domain Home
Weblogic Domain Console User Name
Weblogic Domain Console Host:
Weblogic Domain Console Port
Number:
3. Target Database Details
Target Database Name:
Target Database Host:
Target Database Port: 1521
DWADM Schema Name: DWADM
DWADM Schema Password:

For a successful installation, each item in the above list should be configured. Choose any menu option (1, 2, 3 <P> Process, <X> Exit).

After completing the parameter setup, proceed with option **P**.

Once installation is completed successfully, execute the post-installation steps outlined in the section **Post-installation Tasks**.

Post-installation Tasks

The following post-installation tasks are discussed in this section:

- **Deploying the Repository (RPD) File**
- **Deploying the Web Catalog**
- **Configuring and Deploying the MapViewer**
- **Deploying the Write Back**
- **Enabling the Analytics Help**
- **Enabling the Auto Complete Feature on Oracle Business Intelligence Enterprise Edition 11.1.1.7.1**

Deploying the Repository (RPD) File

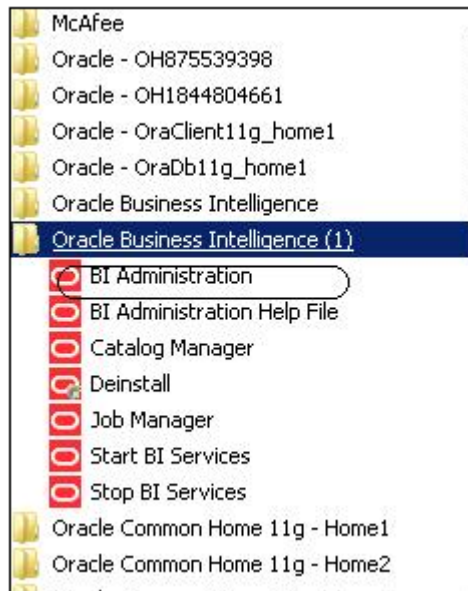
The RPD file is located at: <install_dir>/Reports/rpd/UtilitiesBusinessAnalytics.rpd, where <install_dir> is the Oracle Utilities Analytics Dashboard Package installation directory. This RPD file should be copied to the Windows machine on which Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 is installed.

To deploy the repository (RPD) file, follow these steps:

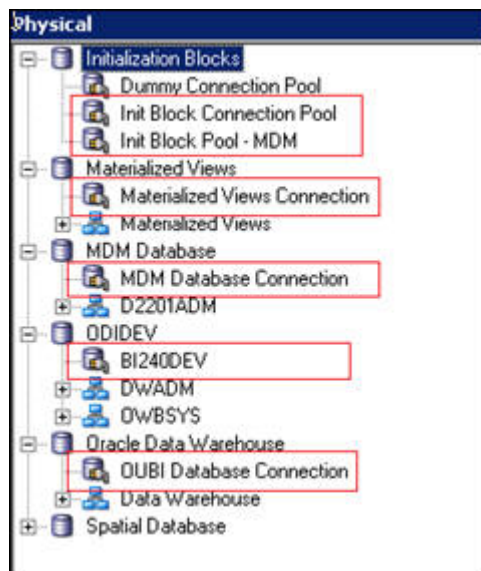
1. Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 should have been installed on the Windows machine before proceeding with the steps below.
2. Launch the **Administration Tool** from the **Start** menu from the **Windows** machine. This is only available in **Windows**.

Start > Programs > Oracle Business Intelligence > BI Administration

3. Open the RPD in offline mode by selecting **File > Open > Offline...**
4. Provide the RPD password. The default password is “oracle123”.

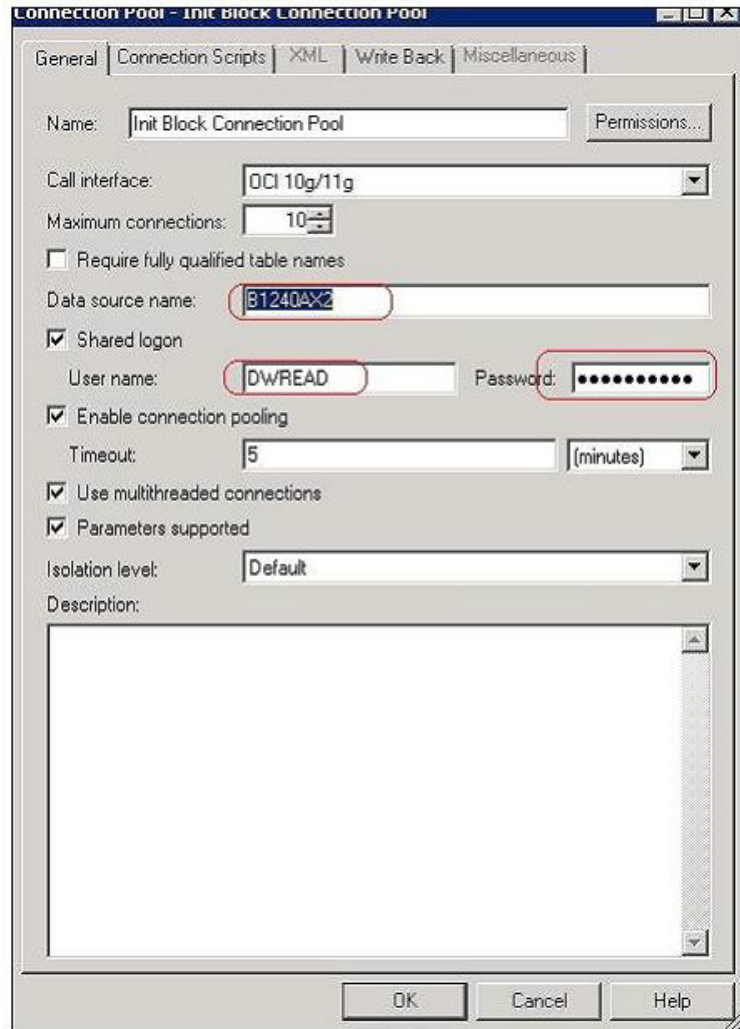


5. Edit the connection pools as shown below by double-clicking on them.



-
6. In the **Init Block Connection Pool** group, enter the following:
Datasource name = BI Database name
User name = DWREAD
Password = DWREAD User password
 7. In the **Init Block Pool - MDM** group, provide the following, only for MDM:
Datasource name = MDM database name
User name = CISUSER
Password = CISUSER User password
 8. In the **Materialized Views Connection** group, enter the following:
Datasource name = BI Database name
User name =DWREAD
Password = DWREAD User password
 9. In the **MDM Database Connection** group, provide the following, only for MDM:
Datasource name = MDM database name
User name = CISUSER
Password = CISUSER User password
 10. In the **ODIDEV Connection Pool** group, provide the following:
Datasource name = BI database name
User name = DWUSER
Password = DWUSER User password
 11. In the **OUBI Database Connection** group, provide the following:
Datasource name = BI database name
User name = DWREAD

Password = DWREAD User password



12. Click **Save**.

Note: Click **Yes** when you see the prompt '*Do you wish to check global consistency?*' and ignore any warnings that appear after consistency check is complete.

13. Log into the **OBIEE Enterprise Manager**.
14. Navigate to **BI Instance > Coreapplication > Deployment**.
15. Lock and edit.

The repository text box is enabled.

16. Browse to the modified rpd file and submit.
17. Provide the RPD password as "oracle123". Click **Apply**.
18. Activate the changes, and then restart the Oracle Utilities Analytics services.

Note: All the above databases set in the connection pool should be updated in the **tnsnames.ora** file in <OBIEE_INSTALL_DIR>/Oracle_BI1/network/admin.

Deploying the Web Catalog

To deploy the web catalog, follow these steps:

1. Go to the <Catalog location>/root/shared and delete the existing catalogs that were delivered out-of-box with the Oracle Utilities Analytics product in the previous release. Any catalog added by you can be retained.
2. Go to the <Catalog location>/root/system, and remove spatial metadata and spatialmetadata.ctr contents.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

For UNIX:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the command:

```
./splenviron.sh -e <envname>
```
3. `cd $SPLEBASE/bin.`
4. Run the ksh `./deploycatalog.sh.`
5. Enter the location of the physical catalogs configured in Enterprise Manager.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

Note: Make sure that the following environment variables are set:

ORACLE_INSTANCE
COMPONENT_NAME

Verify catalog location is referring to the correct location:

```
$ORACLE_INSTANCE\bifoundation\OracleBIPresentationServicesComponent\%COMPONENT_NAME\catalog\OracleBIApps
```

For Windows:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run the `deploycatalog.cmd.`
5. Enter the location of the physical catalogs configured in the Enterprise Manager.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

Note: Make sure that the following Environment variables are set:

ORACLE_INSTANCE
COMPONENT_NAME

Verify catalog location is referring to the correct location:

```
%ORACLE_INSTANCE%\bifoundation\OracleBIPresentationServicesComponent\%COMPONENT_NAME%\catalog\OracleBIApps
```

Configuring and Deploying the MapViewer

To configure and deploy the MapViewer, follow these steps:

- **Configuring the MapViewer**
- **Modifying the instanceconfig.xml**

Configuring the MapViewer

To configure the MapViewer, follow these steps:

1. Update the **mapViewerConfig** file with the below mentioned tags:

```
File location: < OBIEE_INSTALL_DIR >/Oracle_BI1/bifoundation/jee/mapviewer.ear/web.war/WEB-INF/conf/
```

```
File: mapViewerConfig.xml
```

If there is proxy used, insert the list of host names for all the third-party service providers in the security_config node.

```
<proxy_enabled_hosts>
elocation.oracle.com,maps.weatherbug.com,direct.weatherbug.com,api
.wxbug.net,de.tiles.weatherbug.com
</proxy_enabled_hosts>
```

2. Add the following **ns_data_provider** node:

```
<ns_data_providerid="obieeNsdp"
class="com.oracle.utilities.birdseye.BirdseyeNSDP" />
```

3. Add the **current map_tile_server** with the following **map_tile_server** node.

```
<map_tile_server>
<tile_storage default_root_path="/mytilecache/" />
</map_tile_server>
```

4. Add the following with appropriate values:

```
<map_data_source name="MAPCONN"
jdbc_host="<DB_HOST>"
jdbc_sid="<SID of the Database>"
jdbc_port="<DB_PORT>"
jdbc_user="DWADM"
jdbc_password="!<DWADM PASSWORD>" jdbc_mode="thin"
number_of_mappers="32" allow_jdbc_theme_based_foi="true"
/>
```

Note: The exclamatory mark in the front of the password ensures that the password is encrypted.

Modifying the instanceconfig.xml

Update the **instanceconfig.xml** file after taking a backup.

The following are the examples of location of **instanceconfig.xml** file.

For UNIX:

```
<OBIEE_INSTALL_DIR>/instances/instance1/config/
OracleBIPresentationServicesComponent/coreapplication_obips1
```

For Windows:

<OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1

Perform the following changes to **instanceconfig.xml** file:

1. Update the security node with the following values. If the security node is not present, add the following code before </ServerInstance>:

```
<Security>
<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
<HttpOnlyCookies>>false</HttpOnlyCookies>
<CookieDomain />
<CookiePath>/</CookiePath>
</Security>
```

2. Update the following <ServerInstance> element:

```
<LightWriteback>>true</LightWriteback>
```

3. Add the following before the end tag </ServerInstance>:

```
<UI>
<DefaultStyle>oubi</DefaultStyle>
<DefaultSkin>oubi</DefaultSkin>
</UI>
```

4. Add the following lines in between the <ServerInstance> </ServerInstance> tags:

```
<Prompts>
<MaxDropDownValues>256</MaxDropDownValues>
<AutoApplyDashboardPromptValues>>true</
AutoApplyDashboardPromptValues>
<AutoSearchPromptDialogBox>>true</AutoSearchPromptDialogBox>
<AutoCompletePromptDropDowns>
<SupportAutoComplete>>true</SupportAutoComplete>
<CaseInsensitive>>true</CaseInsensitive>
<MatchingLevel>MatchAll</MatchingLevel>
<ResultsLimit>50</ResultsLimit>
</AutoCompletePromptDropDowns>
</Prompts>
```

Deploying the Write Back

The purpose of the write back templates is to allow the user to configure Administrative dashboards. This is mandatory for the Admin Dashboard functionality to work.

To deploy the write back feature, follow these steps:

For UNIX:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.sh -e <envname> command.
3. cd \$SPLEBASE/bin.
4. Run the **ksh ./deploywriteback.sh**.
5. Log into Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database**.
6. Click **Denied:Authenticated User** and select **Granted**.

For Windows:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%/bin`.
4. Run the **deploywriteback.cmd**.
5. Log into Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database**.
6. Click **Denied:Authenticated User** and select **Granted**.

Enabling the Analytics Help

To enable the Analytics' Help, follow these steps:

1. Download *Oracle Utilities Analytics v2.5.1 User's Guide* from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. After downloading *Oracle Utilities Analytics v2.5.1 User's Guide*, change the name of the OUA_UserGuide_2.5.1.pdf file to **OUASA Help.pdf**.
3. Now, place the **Help** file in the \$SPLEBASE/Skin/res directory.
4. Run the following commands:

For UNIX:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin`.
4. Run the **ksh ./deployanalyticsear.sh**.
5. Enter the **WebLogic Domain Console** password. For example, weblogic123.

For Windows:

Perform the following steps:

1. Navigate to the <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%/bin`.
4. Run the **deployanalyticsear.cmd**.
5. Enter the **WebLogic Domain Console Password**. For example, weblogic123
6. Restart the Analytics core services.
7. Restart the WebLogic and all the Analytics services after the Oracle Business Intelligence Enterprise Edition deployment is completed.

Enabling the Auto Complete Feature on Oracle Business Intelligence Enterprise Edition 11.1.1.7.1

Perform the following steps:

1. Restart the Oracle Business Intelligence Enterprise Edition admin server, managed server and opmn services.

Note: Refer to Oracle Business Intelligence Enterprise Edition documentation for the detailed instructions on how to start and stop the admin server, managed server and opmn services.

-
2. Log into the **Analytics** (<http://<Server>:<port>/analytics>).
 3. Click on the **Weblogic User** (top-right of the page).
 4. From the drop-down menu, select **My Account**.
 5. Set **Prompt Auto Complete** to **ON** and click **OK**.

Chapter 6

Upgrading Oracle Utilities Analytics

This chapter provides an overview of upgrading Oracle Utilities Analytics v2.5.1 from an earlier version:

- **Supported Upgrade Paths**
- **Key Points for Oracle Utilities Network Management System's Users**
- **Upgrading Oracle Utilities Analytics**
- **Post-installation Checklist**

Supported Upgrade Paths

The direct upgrade to Oracle Utilities Analytics v2.5.1 is supported from the following version:
Oracle Utilities Analytics v2.5.0.0.1 / or v2.5.0.0.2

Important Note: For upgrading from a version not supported by direct upgrade path, the product must be first upgraded to Oracle Utilities Analytics v2.5.0.0.1, and then upgraded to Oracle Utilities Analytics v2.5.1.

Key Points for Oracle Utilities Network Management System's Users

Here are a few points which an Oracle Utilities Network Management System's user should remember:

1. Oracle Utilities Network Management System (NMS) will not be supported with Oracle Warehouse Builder starting with Oracle Utilities Analytics 2.5.1.
2. Before upgrading Oracle Utilities Network Management System instance to 1.12.0.1 or Oracle Utilities Analytics to 2.5.1, ensure that the final extracts have been generated and loaded to the warehouse database. Once final extracts have been loaded, ensure that no one accesses the Oracle Utilities Network Management System application until Oracle Utilities Analytics ELT component based on the Oracle Data Integrator is set up.
3. While loading the final extracts or upgrading the Oracle Utilities Network Management System application, you can install the software products mentioned in the section **Prerequisite Software for Oracle Utilities Analytics ELT Component based on Oracle Data Integrator** on the target database in parallel.

-
- Once Oracle Utilities Network Management application has been upgraded to 1.12.0.1, follow the steps to configure the Oracle Utilities Network Management application with Oracle Data Integrator mentioned in the section “**Upgrading Oracle Utilities Analytics Database Component**” and “**Installing Oracle Utilities Analytics ELT Component based on Oracle Data Integrator**”

After executing the steps mentioned in the section “Installing Oracle Utilities Analytics ELT Component based on Oracle Data Integrator”, note the timestamp using the query given below on the target database:

```
alter session set nls_date_format = 'DD-MON-YYYY HH24:MI:SS';
select max(COMPLETED_ON) from <Context code>REP.CDC_SYNC_LOG;
```

where <Context code> is the context Code with which NMS instance is configured.

After noting the timestamp, Oracle Utilities Network Management System application can be released to the end users.

- If any customizations have been done previously on the Oracle Utilities Network Management System extractors to populate the UDX columns for any of the facts or dimensions, the same needs to be copied in the new Oracle Data Integrator based ELT methodology.

For details, refer to the **Chapter 5: Extending Oracle Utilities Analytics** in *Oracle Utilities Analytics Administration Guide*.

- Any change to the Oracle Data Integrator ELT metadata configuration must be done before starting the ELT jobs. These metadata configurations can be maintained using Oracle Utilities Analytics Administration Tool.

Specifically refer to the following pages in the Oracle Utilities Analytics Administration Tool:

- Target Entity (for scheduling related configuration)
- Global Configuration (for global settings of the Oracle Utilities Analytics product)

The details about these pages can be found in **Appendix B** of the *Oracle Utilities Analytics Administration Guide*. The chapter 3 of this guide has detailed information on how to configure the Oracle Utilities Analytics product completely.

- The ELT jobs for the existing facts and dimensions of Oracle Utilities Network Management System should be updated to start the data load after the timestamp of the last set of data loaded via the Oracle Warehouse Builder based ETL as mentioned in the step 2.

```
update MDADM.B1_JOB_CONFIG
set SLICE_START_DTTM = <timestamp from Step 7>
where PROD_FLG = 'NMS'
and TARGET_ENTITY_ID in (
select TARGET_ENTITY_ID from MDADM.B1_TARGET_ENTITY
where ENTITY_NAME in
('CD_ACCT', 'CD_ADDR', 'CD_CALL_INFO', 'CD_CITY', 'CD_CREW',
'CD_CTRL_ZONE', 'CD_DEVICE', 'CD_EVENT', 'CD_EVENT_STATUS',
'CD_FEEDER', 'CD_METER', 'CD_PER', 'CD_PHASE', 'CD_PREM', 'CD_SNL',
'CD_STORM', 'CD_STORM_OUTAGE_TYPE', 'CD_SW_PLAN', 'CD_SW_PLAN_STATE',
'CD_USER', 'CF_CUST_RECENT_OUTG', 'CF_CUST_RST_OUTG',
'CF_RECENT_CALL', 'CF_RECENT_CREW', 'CF_RECENT_JOB', 'CF_RST_CALL',
'CF_RST_CREW', 'CF_RST_JOB', 'CF_SW_PLAN', 'CF_SW_PLAN_STATE'));
```

For the Snapshot fact ETL jobs alone, the timestamp should be updated on the first / second of the next month. For example, if the last sync timestamp in the step 7 is "12-NOV-2013 04:02:30", then the arrears ETL job should have the timestamp as "01-DEC-2013 00:00:00".

Use the below query on the target database to update the timestamp on the ETL jobs. Derive the timestamp to be used based on the timestamp from the step 7.

```

update MDADM.B1_JOB_CONFIG
set SLICE_START_DTTM = <First second of next month to load>
where PROD_FLG = 'NMS'
and TARGET_ENTITY_ID in
(select TARGET_ENTITY_ID from MDADM.B1_TARGET_ENTITY
where ENTITY_NAME in
('CF_FEEDER_DLVRD_LOAD', 'CF_OUTG', 'CF_CTRL_ZONE_OUTG', 'CF_CITY_OUTG'))
;

```

Note: The above queries will not update the timestamp for the ELT jobs of the new Oracle Utilities Network Management System dimensions. This is because these tables are loaded from the start. Hence, the default slice timestamp populated on these jobs will be left as is.

8. Start the Oracle Data Integrator ELT jobs using the Oracle Utilities Analytics Administration tool.

Note: Refer to the **Configuring the Jobs** section in the **Appendix B** of *Oracle Utilities Analytics Administration Guide*. The **Enable Jobs** page helps to mass enable the ELT jobs for a specific source product instance.

Upgrading Oracle Utilities Analytics

Note: During the upgrade, it must be noted that the transition from Oracle Warehouse Builder based ETL to Oracle Data Integrator based ELT also happens. If there were any customizations done on the source product Oracle Utilities Network Management System Extractors or on the Oracle Warehouse Builder workflows in the Oracle Utilities Analytics product, then similar functional customizations will have to be done again in the Oracle Data Integrator based ELT.

For additional details on how to customize the Oracle Utilities Analytics, refer to the **Chapter 5: Extending Oracle Utilities Analytics** in *Oracle Utilities Analytics Administration Guide*.

To upgrade to Oracle Utilities Analytics v2.5.1, users must upgrade to Oracle Utilities Analytics 2.5.0.0.1 if it is on different version of product.

Note: If any source application is configured with Oracle Data Integrator to Oracle Utilities Analytics application, sync Oracle GoldenGate first to ensure that all the changes done on the source side have been replicated to the replication schema, and then bring down the source application to make sure that no one is accessing the application until the upgrade steps are completed. And also, make sure to release the source application to the end user after completing all the upgrade steps.

This section describes the procedure to upgrade Oracle Utilities Analytics v2.5.1:

- **Upgrading Oracle Utilities Analytics Database Component**
- **Installing Oracle Utilities Analytics ELT Component based on Oracle Data Integrator**
(applicable only if you have installed Oracle Utilities Network Management System, Oracle Utilities Operational Device Management, or Oracle Utilities Customer Care and Billing).
- **Upgrading Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder**
(applicable only if you have installed Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management).
- **Upgrading Oracle Utilities Analytics Dashboard Component**
- **Installing Oracle Utilities Analytics Admin Tool Component**
(applicable only if you use Oracle Data Integrator based ELT).

Upgrading Oracle Utilities Analytics Database Component

This section describes the upgrade installation of the database. The following topics are discussed in this section:

- **Preinstallation Tasks**
- **Upgrading the Database Software Version**
- **Copying and Decompressing the Install Media**
- **Creating the Users and the Tablespaces**
- **Installing the RELADM Schema**
- **Installing the MDADM Schema**
- **Upgrading the DWADM Schema**
- **Post-Installation**
- **Configuring the Spatial Data**

Preinstallation Tasks

Perform the following tasks:

- Copy the **DuplicateRecordCheck.sql** file from the **BI251\DWADM\Pre-Installation** directory to the database server under `../<Temp>` directory.
- Connect to the DWADM schema and execute the `../<Temp>/DuplicateRecordCheck.sql`.

Note: If it displays no rows selected, it is good to proceed. If it displays some data, then contact support team and do not proceed with the installation. It is recommended to wait until you get the data fix script.

Upgrading the Database Software Version

Oracle Utilities Analytics version 2.5.1 supports both 11.2.0.3 and 12.1.0.1.0 versions of Oracle database server.

If a source application uses Oracle Data Integrator based ELT and is on 11g database, then there is no need to upgrade the database software.

Oracle Utilities Analytics supports Oracle Data Integrator based ELT from the source database on 11g to the target database on 11g and the source database on 12c to the target database on 12c. It means that the source and the target database versions must match.

If the source application is upgraded to 12c, upgrade your Oracle Utilities Analytics database to 12c. It is recommended to upgrade the database software and Oracle Warehouse Builder version to 12.1.0.1.0, and not to delete the old Oracle home until all the upgrade steps are executed.

Copying and Decompressing the Install Media

To copy and then decompress the install media, follow these steps:

1. Download the Oracle Utilities Analytics version 2.5.1 Oracle Database part (**Oracle Utilities Analytics V2.5.1 Oracle Database Multiplatform.zip**) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Create a temporary directory, such as `c:\OUA\temp` or `/OUA/temp` (Referred to `<TEMPDIR>` below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Unzip **Oracle Utilities Analytics V2.5.1 Oracle Database Multiplatform.zip** to `<TEMPDIR>` using any zip utility.

-
- Unzip the zip file <TEMPDIR>/OUA-V2.5.1-Database-Multiplatform.zip using any zip utility.

Creating the Users and the Tablespaces

The following are the steps to be followed for creating users and tablespaces required:

- Ensure to create users in the database with the following names: DWADM, DWUSER, DWREAD, MDADM, RELADM, SPLADM, SPLUSER, SPLREAD, MASTER_REPO, WORK_REPO and DWSTAGE if these do not exist already, without giving specific roles.
- Ensure to create roles with the following names: DW_USER, DW_READ, DW_REPLICATE, SPL_USER and SPL_READ roles if these do not exist already.
- Connect to the sys user, execute the **Usersgrants.sql** in BI251/Scripts/Usersgrants.sql. This SQL provides the required grants to the users created above.

Installing the RELADM Schema

The RELADM schema is a metadata schema that consists of database objects used for storing the product version and the component installation information.

This section describes the initial installation of the RELADM schema, including:

- Reviewing the Storage.par file**
- Installation Steps**
- Generating the Database Statistics**

The process prompts you for the names of three database users:

- A user that owns the application schema. Provide value: RELADM.
- A user that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A user with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.

The process also prompts you for the following:

- A database role that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A database role with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- The location for jar files (the Jar files are bundled with the database package).

Java Home. For example: C:\Java\jdk1.6.0_20.

Reviewing the Storage.par file

The **storage.par** file (that comes with the product and is in location ..\BI251\RELADM\Install-Upgrade) allocates all the base tables and indexes to the default tablespace CISTS_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the **storage.par** file by changing the tablespace name from the default value to a custom value according to the format shown below:

```
Object Type:Object Name:Tablespace name:Parallel:Comments
```

Where Parallel defines the number of threads that the Oracle database server uses to access a table or to create an index. The default value is 1.

Note: If database does not have CISTS_01 tablespace or the RELADM user do not have quota on CISTS_01 tablespace, you must edit the

tablespace name in `Storage.par` to tablespace name on which the RELADM has quota.

Installation Steps

Perform the following steps to install the RELADM schema:

Note: Ensure the `CDXDBI.exe` (in the step below) is run from a Windows desktop that has the Oracle 11.2.0.3 +32 bit client and Java Development Kit Version 6.0 Update 20 or later. Ensure that the `tnsnames.ora` file of the Oracle client is updated with the entry for the target database to connect to the target database.

1. Run the `CDXDBI.exe` from `..\BI251\RELADM\Install-Upgrade`. Run the utility from command prompt. The utility prompts you to enter values for the following parameters:
 - The name of the target database: <DB NAME>
 - The password for the system user account in the database (in silent mode)
 - The name of the owner of the database schema: RELADM
 - The location of the Java home: <..\jdk1.6.0_20>
 - The location of TUGBU Jar files: <..\BI251\RELADM\Jarfiles>
 - The password for the user (in silent mode): <RELADM user password>
 - The Oracle user with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle user with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
2. The utility creates schema and system data definitions.

If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before using the database, generate the statistics for these new objects:

Connect to the sys user and execute the command:

```
execute DBMS_STATS.GATHER_SCHEMA_STATS ('RELADM');
```

Installing the MDADM Schema

The MDADM schema is a metadata schema that consists of the database objects used for storing metadata of Oracle Utilities Analytics. For example ETL job execution status, target tables for ETL, Oracle GoldenGate configuration details, etc.

This section describes the initial installation of the MDADM schema, including:

- **Reviewing the Storage.par file**
- **Installation Steps**
- **Generating the Database Statistics**

The process prompts you for the names of three database users:

- A user that owns the application schema. Provide value: MDADM.

- A user that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A user with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.

The process also prompts you for the following:

- A database role that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- A database role with the read-only privileges to the objects in the application schema. There is no need to provide any value here, just press **Enter** to proceed.
- The location for jar files (the Jar files are bundled with the database package).

Java Home. For example: C:\Java\jdk1.6.0_20.

Reviewing the Storage.par file

The **storage.par** file (that comes with the product and is in location ..\BI251\MDADM\Install-Upgrade) allocates all the base tables and indexes to the default tablespace CISTS_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the **storage.par** file by changing the tablespace name from the default value to a custom value, according to the format shown below:

```
Object Type:Object Name:Tablespace name:Parallel:Comments
```

Where Parallel defines the number of threads that the Oracle database server uses to access a table, or to create an index. The default value is 1.

Note: If database does not have CISTS_01 tablespace or the MDADM user do not have quota on CISTS_01 tablespace, you must edit the tablespace name in the Storage.par file to tablespace name on which the MDADM has quota.

Installation Steps

Perform the following steps to install the MDADM schema:

Note: Ensure the **CDXDBI.exe** (in the step below) is run from a Windows desktop that has the Oracle 11.2.0.3 +32 bit client and Java Development Kit Version 6.0 Update 20 or later. Ensure that the **tnsnames.ora** file of the Oracle client is updated with the entry for the target database to connect to the target database.

1. Run the **CDXDBI.exe** from ..\BI251\MDADM\Install-Upgrade. Run the utility from the command prompt. The utility prompts you to enter values for the following parameters:
 - The name of the target database: <DB NAME>
 - The password for the system user account in the database (in silent mode)
 - The name of the owner of the database schema: MDADM
 - The location of Java home: <..\jdk1.6.0_20>
 - The location of TUGBU Jar files: <..\BI251\MDADM\Jarfiles>
 - The password for the user (in silent mode): <MDADM user password>
 - The Oracle user with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle user with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.

-
- The Oracle database role with the read-write privileges to the database schema: No input needed. Press **Enter** and continue.
 - The Oracle database role with the read-only privileges to the database schema: No input needed. Press **Enter** and continue.
2. The utility creates schema and system data definitions.
- If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before using the database, generate the statistics for these new objects:

Connect to the sys user and execute the command:

```
execute DBMS_STATS.GATHER_SCHEMA_STATS ('MDADM');
```

Upgrading the DWADM Schema

The DWADM schema contains the star schema objects, such as facts and dimensions that contain all the data of the data warehouse. Follow these steps before upgrading the DWADM schema:

- Copy the ...**Pre-Installation**\PreInstallAddColumns.sql and ...**Pre-Installation**\PreIndexCreation.sql scripts to the database server under ../<Temp> directory.
- Change the current directory to ../<Temp>.
- Connect to the DWADM schema and execute the **PreInstallAddColumns.sql**.
- Connect to the DWADM schema and execute the **PreIndexCreation.sql**.

This section describes how to upgrade an existing Oracle Utilities Analytics target schema to Oracle Utilities Analytics v2.5.1, including:

- **Reviewing the Storage.par File**
- **Upgrade Steps**
- **Generating the Database Statistics**

The upgrade process prompts you for the names of three database users:

- A user who owns the application schema. For example, DWADM.
- A user with the read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user. For example, DWUSER.
- A user with the read-only privileges to the objects in the application schema. For example, DWREAD.

The upgrade process also prompts you for the following:

- A database role that has the read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as. For example, the DW_USER.
- A database role with the read-only privileges to the objects in the application schema. For example, DW_READ.
- The location for jar files. (The Jar files are bundled with the database package.).

Java Home. For example, C:\Java\jdk1.6.0_20

Reviewing the Storage.par File

The **storage.par** file (that comes with the product and is in location `..\BI251\DWADM\Install-Upgrade`) allocates all base tables and indexes to the default tablespace `CISTS_01`. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the **storage.par** file by changing the tablespace name from the default value to a custom value, according to the format shown below:

```
Object Type:Object Name:Tablespace name:Parallel:Comments
```

Where `Parallel` defines the number of threads that the Oracle database server uses to access a table, or to create an index. The default value is 1.

Note: If database does not have CISTS_01 tablespace, or the DWADM user does not have quota on CISTS_01 tablespace, you must edit the tablespace name in Storage.par file to tablespace name on which DWADM has quota.

Upgrade Steps

To upgrade the Oracle database, perform the following steps:

Note: Ensure the **CDXDBI.exe** (in the step below) is run from a Windows desktop that has the Oracle 11.2.0.3 + 32 bit client and Java Development Kit Version 6.0 Update 20 or later. Ensure that the **tnsnames.ora** file of the Oracle client is updated with the entry for target.

1. Run the **CDXDBI.exe** from `..\BI251\DWADM\Install-Upgrade`. Run this utility from the **Command Prompt**. The utility prompts you to enter values for the following parameters:
 - The name of the target database: <DB NAME>
 - The password for the SYSTEM user account in the database (in silent mode)
 - The name of the owner of the database schema: DWADM
 - The location of Java home: <..\jdk1.6.0_20>
 - The location of TUGBU Jar files: <..\BI251\DWADM\Jarfiles>
 - The password for the user (in silent mode): <DWADM user password>
 - The Oracle user with the read-write privileges to the database schema: DWUSER
 - The Oracle user with the read-only privileges to the database schema: DWREAD
 - The Oracle database role with the read-write privileges to the database schema: DW_USER
 - The Oracle database role with the read-only privileges to the database schema: DW_READ
2. If you chose to continue, **CDXDBI** first checks for the existence of each of the users specified and prompts for their password, default tablespace, and temporary tablespace if they do not exist.
3. After setting up roles and users, the utility continues upgrading schema and system data definitions. If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating the Database Statistics

During an install process, the new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

Post-Installation

Connect to DWADM schema of Oracle Utilities Analytics database and execute the following:

```
... \BI251\DWADM\Post-Upgrade\ControlZoneUpdate.sql
```

Configuring the Spatial Data

Note: See **Spatial Configuration** to configure the spatial data if application is not already configured.

This section describes how to load the spatial metadata in the **USER_SDO*** tables for Oracle Utilities Analytics. If spatial data is already configured in application, follow the steps mentioned below.

Use the following procedure to load the spatial metadata in the target database:

Loading the Spatial Metadata in the Target Database

1. Create the **dump_dir** directory in the database and copy **user_sdo.dmp** file from ../BI251/Spatial-Metadata folder to that location.

2. Import the released spatial tables to the target database using the following command:

```
impdp directory=dump_dir dumpfile=user_sdo.dmp logfile=
    impdp_user_sdo.log schemas=DWADM
remap_tablespace=cists_01:<tablespace_name>
```

Note: Run this command from the database server.

Note: Make sure to change the **tablespace_name** to the tablespace name on which the DWADM has the quota. If the DWADM tablespace has quota on **cists_01** tablespace, then exclude whole **remap_tablespace** clause from the command.

3. Review the **impdp_user_sdo.log** file to ensure the tables are imported successfully.
4. After importing the tables, run the following SQL scripts in the command prompt from ../BI251/Spatial-Metadata folder:
 - `sqlplus dwadm/<dwadm user password>@database-name @copy_spatial_metadata.sql`
 - `sqlplus dwadm/<dwadm user password>@database-name @clean_sdo_release_tbls.sql`
5. Review the log files.

Additional Steps to be followed for a SSL Based Configuration

1. Login to the DWADM schema.
2. Execute the below commands to ensure that map reports will use the secure https connection to fetch map tile data.

-- Take a backup of the existing record

```
insert into USER_SDO_CACHED_MAPS
select 'CM_WORLD_MAP_BACKUP', DESCRIPTION, TILES_TABLE, IS_ONLINE,
IS_INTERNAL, DEFINITION, BASE_MAP, MAP_ADAPTER
from USER_SDO_CACHED_MAPS
where NAME='B1_WORLD_MAP';
```

```
-- Update elocation map to specify https in the url
update USER_SDO_CACHED_MAPS
set DEFINITION = replace(DEFINITION, 'url="http://', 'url="https://
')
where NAME='B1_WORLD_MAP';
```

```
select DEFINITION from USER_SDO_CACHED_MAPS where
NAME='B1_WORLD_MAP';
```

```
-- Verify the update and commit
commit;
```

Installing Oracle Utilities Analytics ELT Component based on Oracle Data Integrator

Note: Ensure that the same Operating System (OS) user is used to install the Oracle Utilities Analytics ETL component that is used to install all the related software. Refer to the section **Prerequisite Software**.

Note: You must install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator (ODI) only if you are using Oracle Utilities Network Management System, Oracle Utilities Operational Device Management or Oracle Utilities Customer Care and Billing as the source applications.

Note: Oracle Utilities Network Management System, Oracle Utilities Operational Device Management or Oracle Utilities Customer Care and Billing application set up is a prerequisite in order to install Oracle Data Integrator based ELT component. The source applications should be setup with the required configurations before proceeding with the Oracle Data Integrator based ELT component installation in order to successfully extract data from them to Oracle Utilities Analytics.

Refer to the chapter **Configuring Oracle Utilities Network Management System for Business Intelligence** in *Oracle Utilities Extractors and Schema for Oracle Utilities Network Management System Data Mapping Guide*.

Refer to the chapter **Configuring Oracle Utilities Operational Device Management for Business Intelligence** in *Oracle Utilities Extractors and Schema for Oracle Utilities Operational Device Management Data Mapping Guide*.

Refer to the chapter **Configuring Oracle Utilities Customer Care and Billing for Business Intelligence** in *Oracle Utilities Extractors and Schema for Oracle Utilities Customer Care and Billing Data Mapping Guide*.

This section describes how to install the ELT component of Oracle Utilities Analytics. The section includes the following:

- **Setting up Oracle GoldenGate**
- **Copying and Decompressing the Install Media**
- **Setting Permissions for the Cistab File in UNIX**
- **Oracle Utilities Analytics ELT Component based on Oracle Data Integrator Package Installation Steps**
- **Post-installation Tasks**
- **Generating the Security and Starting the Oracle Data Integrator Schedule**

Setting up Oracle GoldenGate

Note: This section describes setups required in Oracle GoldenGate to work with Oracle Utilities Analytics. For installing Oracle GoldenGate, refer to its installation document.

Note: You should install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator (ODI) only if you are using Oracle Utilities Operational Device Management or Oracle Utilities Customer Care and Billing as the source application.

Download Oracle GoldenGate 12.1.2.0.0 from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>) and set up Oracle GoldenGate on the source and the target database servers:

- **Setting up Oracle GoldenGate on the Source Database Server**
- **Setting up Oracle GoldenGate on the Target Database Server**

Setting up Oracle GoldenGate on the Source Database Server

Bring down the source application to ensure that no one is accessing the application.

Note: If you have 11g instance of Oracle GoldenGate for Oracle Utilities Analytics already running, stop all the Oracle GoldenGate processes on the source database server, install the 12c Oracle GoldenGate software in the new home and start the manager process on the same port used for 11g Oracle GoldenGate manager process.

Perform the following steps to stop 11g Oracle GoldenGate processes:

1. Log into the 11g Oracle GoldenGate prompt by executing ggsci.
Info all will show running GG processes.
2. dblogin userid <GG owner>@<hostname>:<port no>/<DB Service name>,password <GG owner password>
3. stop <GG process name>
4. stop mgr
5. info all
Check the status of Oracle GoldenGate processes. It shows that the processes are stopped.

Perform the below steps for setting up the source database server for Oracle GoldenGate:

1. Create a directory on the source database server.
For example: ../GoldenGateHome. Oracle GoldenGate should be installed in this directory. This will be the **Oracle GoldenGate home (OGG_Home)** on the source database server.

Important Note: Make a note of this directory location; it will be used during Oracle Utilities Analytics installation.

2. Open a **Command** window and set the source ORACLE_SID and ORACLE_HOME variables.

Set LD_LIBRARY_PATH using the following commands:

For Unix:

```
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

For Windows:

```
set LD_LIBRARY_PATH=%ORACLE_HOME%/lib;%LD_LIBRARY_PATH%
```

3. In the **Command** window, change the directory to **GoldenGate home** directory and execute the command as shown below:

For Unix:

```
./ggsci
```

For Windows:

```
ggsci
```

This opens the **Oracle GoldenGate** prompt.

4. On the **Oracle GoldenGate** prompt, execute the **create SUBDIRS** command.
5. On the **Oracle GoldenGate** prompt, execute the **EDIT PARAMS mgr** command. This command opens the editor.
6. Copy the below contents:
 - PORT 7830
 - DYNAMICPORTLIST 7830-7880

Note: Make sure that the mentioned port range (7830-7880) is not in use. If they are in use, provide another available port range.

Note: Make a note of the range start and end ports numbers; it will be used during Oracle Utilities Analytics installation.

Note: Refer to Oracle GoldenGate documentation if you would like to configure other settings such as **Purge**.

7. On the **Oracle GoldenGate** prompt, execute the **start mgr** command to start the GoldenGate manager process.
8. On the **Oracle GoldenGate** prompt, execute the **info all** - command to view the manager process is running. Exit Oracle GoldenGate by executing the **exit** command.
9. Ensure that source database is in the **archive** mode.
10. Connect to the source database as the sys user and execute the **alter database add supplemental log data (primary key) columns** command.
11. Go to the **Oracle GoldenGate home (OGG_Home)** directory.
12. Connect to the database as sys user using **SQL*Plus (OGG_Home)** should be the current directory while invoking **SQL*Plus**.
13. Create a new user only if the source database does not have Oracle GoldenGate owner already created, for example: ODM01SRC (this user is the Oracle GoldenGate owner) and make sure to assign a tablespace to this user that is not assigned to any other user.

Important Note: Make a note of the Oracle GoldenGate Owner Username; it will be used during Oracle Utilities Analytics installation.

14. Execute **Grant connect,resource,dba** to <GoldenGate owner user created in the step mentioned above>.
15. Connect to the source application ADM schema such as CISADM and execute the below commands:

For Oracle Utilities Customer Care and Billing source database, execute following grants:

Grant select on F1_MST_CONFIG to < GoldenGate owner user created in the step mentioned above>

Grant select on F1_EXT_LOOKUP_VAL to < GoldenGate owner user created in the step mentioned above >

Grant select on F1_BKT_CONFIG to < GoldenGate owner user created in the step mentioned above >

Grant select on F1_BKT_CONFIG_VAL to < GoldenGate owner user created in the step mentioned above >

For Oracle Utilities Operational Device Management source database, execute following grants:

Grant select on F1_MST_CONFIG to < GoldenGate owner user created in the step mentioned above>

Grant select on F1_EXT_LOOKUP_VAL to < GoldenGate owner user created in the step mentioned above>

Note: While executing the SQL commands in steps 16, 17 and 18, provide the GoldenGate owner user if prompted for.

Note: Skip the steps 16,17 and 18 if the source database already has GoldenGate owner created. The steps 16, 17 and 18 need to be executed only when the GoldenGate owner is created for the first time in the source database.

-
16. Run the command from OGG_HOME if you are setting up Oracle Data Integrator components first:
@marker_setup.sql
 17. Run the command from OGG_HOME if you are setting up Oracle Data Integrator components first:
@ddl_setup.sql
 18. Run the command below from OGG_HOME if you are setting up Oracle Data Integrator components first:
@role_setup.sql
 19. Exit the **SQL*Plus** login and create a directory named **diroby** inside the **OGG_Home** directory.

Setting up Oracle GoldenGate on the Target Database Server

Note: It is recommended to use the same port for the 12c manager process that is used for 11g Oracle GoldenGate manager process if 11g Oracle GoldenGate is set up on the target server. If 11g instance of Oracle GoldenGate is running on the target server, stop the source application specific replicate Oracle GoldenGate processes.

Perform the following steps to stop 11g Oracle GoldenGate processes:

1. Connect to the 11g Oracle GoldenGate prompt.
Info all shows the processes information.
2. dblogin userid MDADM@<hostname>:<port no>/<DB Service name>,password <MDADM password>.
3. stop <Source application specific GG process>.
4. delete <Source application specific GG process>.
5. stop mgr

Perform the following steps to setup the target database server for Oracle GoldenGate:

1. Create a directory on the target database server.
For example: ../GoldenGateHome. Oracle GoldenGate should be installed in this directory. This will be the **Oracle GoldenGate home (OGG_Home)** on the target Oracle Utilities Analytics database server.

Important Note: Make a note of this directory location; it will be used during Oracle Utilities Analytics installation.

2. Open a **Command** window and set the target **ORACLE_SID** and **ORACLE_HOME** variables.

Set LD_LIBRARY_PATH using the following commands:

For Unix:

```
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

For Windows:

```
set LD_LIBRARY_PATH=%ORACLE_HOME%/lib;%LD_LIBRARY_PATH%
```

3. In the **Command** window, change the directory to **GoldenGate home** directory and execute the command shown below:

For Unix:

```
./ggsci
```

For Windows:

```
ggsci
```

This opens the **Oracle GoldenGate** prompt.

4. On the **Oracle GoldenGate** prompt, execute the **create SUBDIRS** command.
5. On the **Oracle GoldenGate** prompt, execute the **EDIT PARAMS mgr**. It opens an editor.
6. Copy the below contents:
 - PORT 7830
 - DYNAMICPORTLIST 7830-7880

Note: Make sure that the mentioned port range (7830-7880) is not in use. If they are in use, provide another available port range.

Note: Make a note of the range start and end ports numbers; it will be used during Oracle Utilities Analytics installation.

Note: Refer to Oracle GoldenGate documentation if you would like to configure other settings such as **Purge**.
7. On the **Oracle GoldenGate** prompt, execute the **start mgr** command to start the **GoldenGate Manager** process.
8. On the **Oracle GoldenGate** prompt, execute the **info all** -command to view the manager process is running.
9. Exit the **Oracle GoldenGate** login by executing the **exit** command and create a directory named **diroby** inside the **OGG_Home** directory.

Copying and Decompressing the Install Media

The Oracle Utilities Analytics ETL component based on Oracle Utilities Analytics installation file is delivered in the zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator User IDs, you must complete each of the following installation steps for each Administrator User ID.

1. Download the Oracle Utilities Analytics version 2.5.1ELT component based on Oracle Data Integrator part (**Oracle Utilities Analytics V2.5.1ETL component based on ODI Multiplatform.zip**) the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the database server host as the Oracle Utilities Analytics administrator user ID.
3. Create a temporary directory such as c:\OUA\temp or /OUA/temp (Referred to <TEMPDIR> below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
4. Unzip **Oracle Utilities Analytics V2.5.1ETL component based on ODI Multiplatform.zip** to <TEMPDIR>.
5. Decompress the file **BI.ODI.V2.5.1-MultiPlatform.jar** as follows:
 - cd <TEMPDIR>
 - jar -xvf BI.ODI.V2.5.1-MultiPlatform.jar

Note: You should have Java JDK installed on the machine used to (un)jar the Oracle Utilities Analytics ELT component based on Oracle Data Integrator installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>. A sub-directory named "**BI.ODI.V2.5.1**" is created. It contains the installation software for the Oracle Utilities Analytics ELT component based on Oracle Data Integrator.

Setting Permissions for the Cistab File in UNIX

Every Oracle Utilities Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On the UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle Administrator User ID, this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions, and if it identifies a lack of necessary permissions, it generates a script in the <TEMPDIR>/BI.ODI.V2.5.1 directory named **cistab_<SPLENVIRON>.sh**. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Analytics Administrator User ID so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are re-installing an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case. If you plan to upgrade an existing environment, you must ensure to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Oracle Utilities Analytics ELT Component based on Oracle Data Integrator Package Installation Steps

This section includes:

- **Prerequisites**
- **Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator**

Prerequisites

Before installing the Oracle Data Integrator package, ensure that you have already installed the below-mentioned software products. These software products should be installed on the database server:

Also, note the locations of these software products:

- JDK 1.6.0 update 20 to 35 (JAVA_HOME) on the database server
- Oracle Database Home (ORACLE_HOME)
- WebLogic 10.3.6 (WL_HOME)
- Oracle Data Integrator 11.1.1.6 with Java EE Installation (ODI_HOME)
- Oracle GoldenGate 12.1.2.0.0 software on the source database server and the target database server (OGG_HOME)
Download the Oracle GoldenGate 12.1.2.0.0 software from Oracle Software Delivery Cloud (<https://edelivery.oracle.com>)

Now, follow the below instructions to install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator.

Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator

There are two scenarios:

- **Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator (ODI) If You Are Using the 12c Database or Setting Up ODI Based ELT Component for the First Time**
- **Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator If You Are Using 11g Database or Had Already Set Up ODI Based ELT Component in**

the Previous Release

Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator (ODI) If You Are Using the 12c Database or Setting Up ODI Based ELT Component for the First Time

If you are using the 12c database, follow these steps to install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator after performing the steps to deploy the ELT component objects as described in the section above:

1. Change the current directory to <TEMPDIR>/BI.ODI.V2.5.1.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl. It is required to run the installer.
3. Make sure that the user with which Oracle Database Enterprise Edition 12.1.0.1.0 was installed and all other prerequisite software products were installed, is used to install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator package.
4. Execute the following script for UNIX/Windows:

For UNIX:

Run the following commands:

- export ORACLE_CLIENT_HOME=<ORACLE_HOME>
- export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
- export PATH=\$PATH:\$PERL_HOME/bin
- Run ksh ./install.sh

Note: Ensure that you have the required execute permission on the install.sh.

For Windows:

Run the following commands:

- set ORACLE_CLIENT_HOME=<ORACLE_HOME>
- set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
- set PATH=%PERL_HOME%\bin;%PATH%
- Install.cmd

5. The Oracle Utilities Analytics specific menu is displayed.
6. Select each menu item to configure the values.

For the detailed description of the values, see **Configuration Worksheet for ELT Component based on Oracle Data Integrator Installation**.

Note: For parameter 'Target GoldenGate Shared Secret', follow the below instructions.

Note: All schema names must be entered in the upper case.

- a. Go to the Oracle GoldenGate prompt and run the command:

```
encrypt password <password of MDADM user>, encryptkey DEFAULT
```

- b. Copy the encrypted password returned by the above command and provide it as the value for Target GoldenGate Shared Secret.

Environment Installation Options

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

Configure all the following items to guarantee a successful installation.
Choose any option from the menu (1, 2 <P> Process, <X> Exit).

Environment Configurations

1. Environment Description
Environment Description:
2. ODI Environment Configuration:
WEBLOGIC HOME:
ODI HOME:
ODI SUPERVISOR USER: SUPERVISOR
ODI SUPERVISOR Password: sunopsis123
Target Database Name:
Target Database Host:
Target Database Port: 1521
DWADM Schema Name: DWADM
DWADM Schema Password: <DWADM Password>
ODI Master Schema Name: MASTER_REPO
ODI Master Schema Password: < MASTER_REPO Password>
ODI Work Schema Name:
ODI Work Schema Password:
ODI Master Repository ID: 601
ODI Work Repository ID: 602
MDADM Schema Name: MDADM
MDADM Schema Password: <MDADM Password>
3. ODI Agent Configuration
ODI Weblogic Agent Host:
ODI Weblogic Agent Port:
4. Target GoldenGate Configuration
Target GoldenGate Manager Port:
Target GoldenGate Dynamic Minimum Port:
Target GoldenGate Dynamic Maximum Port:
Target GoldenGate Algorithm:
Target GoldenGate Encryptkey:
Target GoldenGate Shared Secret:
Target Database Home:
Target GoldenGate Home:

Configure the items of the above list to guarantee a successful installation. Choose any option from the menu item: (1, 2, 3, 4 <P> Process, <X> Exit).

After finishing the parameter setup, proceed with the option **P**.

Once the installation is completed successfully, execute the post-installation steps outlined in the section **Post-installation Tasks**, and then the steps outlined in the section **Starting ODI jobs**.

Installing Oracle Utilities Analytics ELT Component on Oracle Data Integrator If You Are Using 11g Database or Had Already Set Up ODI Based ELT Component in the Previous Release

If you are using Oracle Utilities Analytics components based on Oracle Data Integrator and 11g of the database, follow these steps to install the Oracle Utilities Analytics ELT component based on Oracle Data Integrator:

1. Create a temporary directory such as `c:\OUA\temp` or `/OUA/temp` (Referred to `<TEMPDIR>` below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
2. Unzip Oracle Utilities Analytics V2.5.1ETL component based on ODI Multiplatform.zip to `<TEMPDIR>`.
3. Decompress the file `BI.ODI.V2.5.1-MultiPlatform.jar` as follows:
 - `cd <TEMPDIR>`
 - `jar -xvf BI.ODI.V2.5.1-MultiPlatform.jar`

To set the Oracle Data Integrator environment, follow the below steps.

1. Connect to the RELADM schema and execute query "select server_name,env_dir from B1_INSTALL_COMPONENTS where comp_cd='BI_ODI'; " to get the server and Oracle Data Integrator environment directory details where Oracle Data Integrator environment is set up.
2. Login to the server and change the directory to `<ODI environment directory>/etc` and open the ENVIRON.INI file.
3. The value of SPLENVIRON variable is the Oracle Data Integrator environment name. Note down the Oracle Data Integrator environment name.
4. `cd <ODI environment directory>/bin` and execute `ksh ./splenvron.sh -e <ODI environment name>`.
5. Change the current directory to `<TEMPDIR>/BI.ODI.V2.5.1`.
 - Run the `ksh ./install.sh`When prompted whether you want to upgrade existing installation, enter Y.
6. Select the option 4 to change the Oracle GoldenGate related parameter such as Oracle GoldenGate home, port if changed.
After making all necessary configuration changes, enter P to proceed.
7. Run the `ksh initialSetup.sh`

Post-installation Tasks

The following are the sequential deployment steps to setup the successful deployment.

- **Deleting the Oracle Data Integrator Metadata**
- **Deploying the ELT Component based on Oracle Data Integrator**
- **Generating the Views (Global)**
- **Configuring the Source**
- **Executing the Knowledge Modules (KMs)**
- **Generating the Views (For Source Context)**
- **Executing the B1_CLEANUP_STAG Scenario**
- **Creating the WebLogic Domain for Oracle Data Integrator Agent**

-
- **Starting the WebLogic Admin Server**
 - **Authenticating the Oracle Data Integrator Supervisor User in WebLogic and Starting the Managed Server**

Important Note: Before performing the post-installation tasks, a database directory 'B1_DATA_DUMP_DIR' should be created on the target database. This directory is used for logging the export import task used during the initial ELT load. The following is a sample SQL that creates the database directory pointing to the file system path /scratch/file_data:

```
CREATE DIRECTORY B1_DATA_DUMP_DIR AS '/scratch/
file_data';
```

Deleting the Oracle Data Integrator Metadata

Note: This section is applicable to you if you have installed Oracle Utilities Analytics component based on the Oracle Data Integrator and upgrading to Oracle Utilities Analytics 2.5.1. If you are setting up Oracle Data Integrator component from the scratch, this step is not required.

To delete the Oracle Data Integrator metadata, perform the following steps:

1. Stop the scheduler.
2. Bring down the Oracle Data Integrator Admin and Manage servers.
3. Log into Oracle Data Integrator console.
4. Navigate to **Designer > Projects > Oracle Utilities BI**.
5. Right-click and select **Delete**.
6. Connect to the MDADM schema and execute “select max(global_cfg_id) from b1_global_cfg;” to get the maximum value.
7. Advance the B1_GLOBAL_CFG_SEQ sequence to value returned by previous query.

Deploying the ELT Component based on Oracle Data Integrator

In the Oracle Data Integrator (ODI) deployment step, the script creates the master and work repositories, and imports Oracle Data Integrator metadata. Run the following script. Note that the script may take several minutes to complete.

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenv.sh -e <envname> command.
3. cd \$SPLBASE/bin.
4. Run the **ksh ./deployodi.sh**.

For Windows:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenv.cmd -e <envname> command.
3. cd %SPLBASE%\bin.
4. Run the **deployodi.cmd**.

Verify the log at the location: <SPLBASE>/logs/system/deployodi.log.

Generating the Views (Global)

This step creates global views based on Oracle Data Integrator metadata.

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the **ksh ./ runviewGenerator.sh.**

For Windows:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run `runviewGenerator.cmd.`

Verify the log at the location: <SPLEBASE>/logs/system/deployodi.log.

Configuring the Source

If you have already configured source instance and upgrading to Oracle Utilities Analytics 2.5.1, follow the below steps:

1. Run **configureSourceDB.sh/cmd** for each source instance configured
`ksh ./configureSourceDB.sh/smd -c <Source context name> -u <GG owner> -p <GG Owner Password> -s <Application Adm schema> -r <Source application url>.`
Choose any option (1, <P> Process, <X> Exit): 1.
2. Change the Oracle GoldenGate parameter such as GG home,ports if changed. If the source database is upgraded to 12c, then change the source database home parameter as well.
3. Press P.

If you are configuring the source instance for the first time, follow these steps.

Note: This step inserts each source instance and instance name into b1_prod_instance table. This step has to be repeated for each source instance that will be used.

This step also creates replication schema in the target database corresponding to each source application. \$SPLEBASE/bin/obi.properties file is read to assign the default tablespace to replication user.

By default, this file has **obi.repository.default.tablespace = CISTS_01** entry where CISTS_01 is tablespace name. If you want to assign this tablespace as default tablespace to replication schema, make sure to create CISTS_01 tablespace in the target database if it does not exist.

Make sure to edit **obi.repository.default.tablespace** parameter in \$SPLEBASE/bin / obi.properties file to another tablespace name, which exists in the database and it is considered the default tablespace for the replication schema. This entry should be changed as follows:

```
obi.repository.default.tablespace = <Name of tablespace to use>
```

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.

2. Initialize the environment with the `./splenv.sh -e <envname>` command.
3. `cd $SPLEBASE/bin`
4. Run `configureSourceDB.cmd -c <Source instance> -u <Source Golden gate owner schema name> -p <Source Golden gate owner Schema password> -s <Source Application Schema> -r <Source Application Drill Back URL>`.

For Windows:

Perform the following steps:

1. Navigate to `<Install_Dir>/bin` directory.
2. Initialize the environment with the `./splenv.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin`
4. Run `configureSourceDB.cmd -c <Source instance> -u <Source Golden gate owner schema name> -p <Source Golden gate owner Schema password> -s <Source Application Schema> -r <Source Application Drill Back URL>`.

where,

- Source instance = Name for the source instance being added
 For Oracle Utilities Operational Device Management source application, the valid values are ODM1,ODM2.....ODM9. Provide any of these values, which is already not configured. Make a note of these parameters; it will be used in the next deployment steps.
 For Oracle Utilities Customer Care & Billing application, the valid values are CCB1,CCB2.....CCB9. Provide any of these values, which is already not configured.
 For Oracle Utilities Customer Care & Billing application, the valid values are NMS1,NMS2.....NMS9. Provide any of these values, which is already not configured.
- Source Schema User = <GoldenGate owner created in the source database> For example: ODM01SRC.
- Source schema user password = GoldenGate owner password.
- Source application schema = source application schema (For example, CISADM).
- Source application drill back URL = source application URL (`http://<Host>:<Port>/ouaf/`).

This opens a source configuration menu as shown below. Select each menu item to configure the values.

For the detailed description of the values, refer to the **Configuration Worksheet for ELT Component based on Oracle Data Integrator Installation**.

Note: For parameter 'Source GoldenGate Shared Secret', follow the below instructions.

- a. Go to the **Oracle GoldenGate** prompt and run the command:

```
encrypt password <password of source GoldenGate owner user>,
encryptkey DEFAULT
```
- b. Copy the encrypted password returned by the above command and provide it as the value for Source GoldenGate Shared Secret.

```
Source GoldenGate Configuration
Source Instance Name:
Source GoldenGate Manager Port:
Source GoldenGate Dynamic Minimum Port:
Source GoldenGate Dynamic Maximum Port:
Source GoldenGate Algorithm:
```

Source GoldenGate Encryptkey:
Source GoldenGate Shared Secret: Source Database Name:
Source Database Host:
Source Database Port:
Source Database Home:
Source GoldenGate Home:

Each item in the above list should be configured for a successful install. Choose any option (1, <P> Process, <X> Exit).

Once the parameter setup is completed, proceed with option **P**.

Executing the Knowledge Modules (KMs)

This step is run to reverse engineered source tables, set up the Journalizing Setup, and create the Oracle GoldenGate scripts. This step has to be repeated for each source instance configured in previous step.

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./spleniron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the `ksh ./initiateSetup.sh -c <Source instance>`.

Where source instance = Instance name given to the source in the Configure Source step mentioned above. For example: ODM1

5. In \$SPLEBASE/GGScriptsGen, you will find a folder created starting with the instance name.

One or more directories may be created and the naming convention will be <contextcode> followed by two alphabets.

For example: ODM1AA.

6. Go to the folder that has name starting with the instance name.

For example: \$SPLEBASE/GGScriptsGen/ODM1AA

Note: Refer to the **ReadMe.txt** generated in the above-mentioned directory for the detailed instructions on how to run the Oracle GoldenGate scripts and how to start the initial and the incremental loads.

Note: Ensure that ORACLE_SID and, ORACLE_HOME and LD_LIBRARY_PATH are set before running the Oracle GoldenGate scripts on both the source and the target database servers.

Note: During the Oracle GoldenGate script execution, you might get an error message (ERROR: OCI Error ORA-00955: name is already used by an existing object (status = 955)) related to the B1_CHECKPOINT table. It should be ignored.

Note: When using Oracle Database 12c, if the Oracle GoldenGate processes fails, verify the logs to check whether it is because of a DDL replication error. If it is due to DDL replication error, restart the Oracle GoldenGate process until it succeeds.

Note: The generated Oracle GoldenGate scripts need minor modifications when using Oracle Automatic Storage Management (ASM). Refer to Oracle GoldenGate installation documentation for more details.

For Windows:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splnviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run the **initiateSetup.cmd**.

Where Source instance = Instance name given to the source in the Configure Source step mentioned above. For example: ODM1

5. In %SPLEBASE%/GGScriptsGen directory, you will find the folder created starting with instance name.

For example, ODM1AA.

6. Go to the folder that has name starting with the instance name.

For example, go to %SPLEBASE%/GGScriptsGen/ODM1AA

Refer to the **ReadMe.txt** generated in the above-mentioned directory for the detailed instructions on how to run the Oracle GoldenGate scripts and how to start the initial and the incremental loads.

Note: Ensure that ORACLE_SID, ORACLE_HOME and LD_LIBRARY_PATH are set before running the Oracle GoldenGate scripts on both the source and target database servers.

Note: During the Oracle GoldenGate script execution, you might get an error message (ERROR: OCI Error ORA-00955: name is already used by an existing object (status = 955)) related to the B1_CHECKPOINT table. It should be ignored.

Note: When using Oracle Database 12c, if the Oracle GoldenGate processes fails, verify the logs to check whether it is because of a DDL replication error. If it is due to DDL replication error, restart the Oracle GoldenGate process until it succeeds.

Note: The generated Oracle GoldenGate scripts need minor modifications when using Oracle Automatic Storage Management (ASM). Refer to Oracle GoldenGate installation documentation for more details.

Once Oracle GoldenGate scripts are executed, the source application can be released to the end users.

Generating the Views (For Source Context)

This step creates the views for a given source instance. These views are used for replication. This step needs to be executed once for each source configured.

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splnviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run **runviewGenerator.sh -c <Source Instance>**.

For Windows:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.

-
2. Initialize the environment with the `./splenvron.cmd -e <envname>` command.
 3. `cd %SPLEBASE%\bin.`
 4. Run **ruvviewGenerator.cmd -c <Source Instance>**.

Where source instance = instance name given to the source in the Configure Source step mentioned above. For example: ODM1

Note: After the completion of the Oracle Utilities Analytics deployment, if there are any changes done to the source configuration, the above script has to be executed for that source context to get them applied to Oracle Utilities Analytics.

Executing the B1_CLEANUP_STAG Scenario

Perform the following steps:

1. Login to Oracle Data Integrator console.
2. Navigate to **Topology > Contexts**.
3. Double-click on each context, except **Global > Schemas**. Check if the staging logical schema is mapped to B1.DWSTAGE physical schema. If staging logical schema is not mapped, then map it to B1.DWSTAGE, and click on some other mapping and save. Close and reopen to verify that the mapping has been saved.
4. Navigate to **Designer > Load Plans and Scenarios > Framework > Data Fix > B1_CLEANUP_STAG**.
5. Right click and execute.
6. Select the context as Global and Logical agent as Local(no agent). And, check operator logs for completion.

Creating the WebLogic Domain for Oracle Data Integrator Agent

If you have already Oracle Data Integrator component installed and upgrading to Oracle Utilities Analytics 2.5.1, then start the Oracle Data Integrator Admin and Manage servers.

If you are installing Oracle Data Integrator components from the scratch, follow the below steps.

Create the WebLogic Domain for the WebLogic Agent (ODI Agent). Follow the below steps to bring up WebLogic ODI Agent, which is created in the step 1 **Deploying the ELT Component based on Oracle Data Integrator**.

1. Go to the installed location for ODI: `<MW_HOME>/Oracle_ODI1\common\bin`, and then run the below commands for Unix and Windows. Provide the masterschema and workschema provided in the configuration.

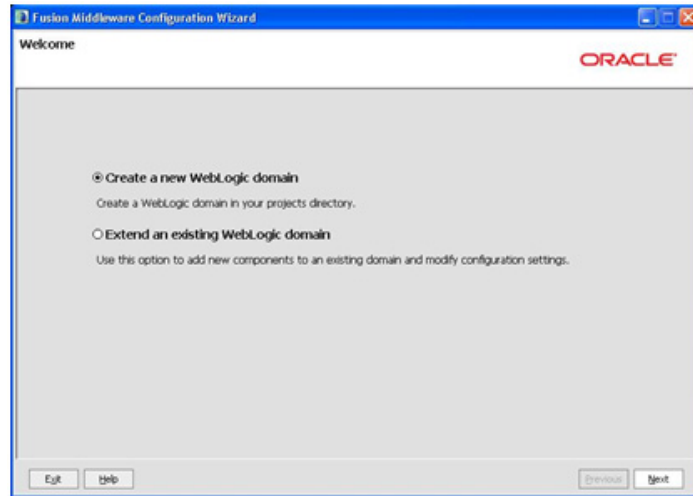
For UNIX:

- Run `/Config.sh`

For Windows:

- Run `config.cmd`

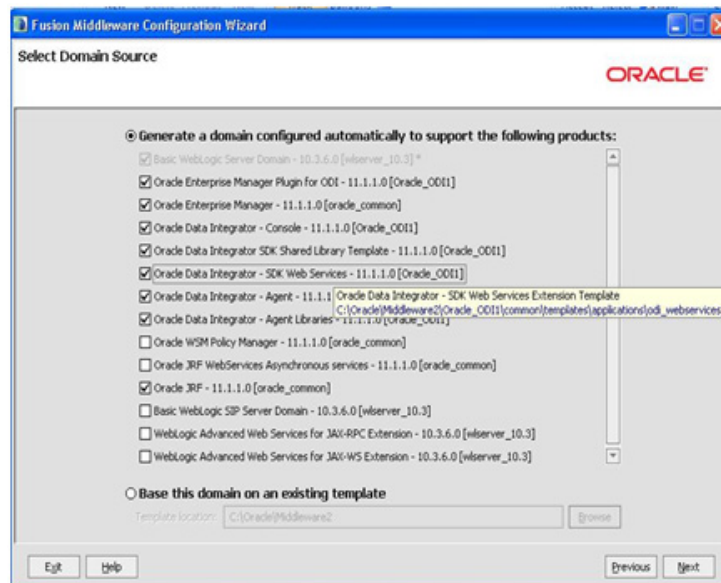
2. Create a new WebLogic domain.



Click **Next**.

3. Generate a domain configured automatically to support the following products, select the checkboxes the below plugins mentioned. When you select these plugins, there are some automatic plugins that get selected.

- Oracle Enterprise Manager Plugin for Oracle Data Integrator -11.1.1.0
- Oracle Data Integrator - Console - 11.1.1.0
- Oracle Data Integrator Agent - 11.1.1.0
- Oracle Data Integrator - SDK Web Services - 11.1.1.0

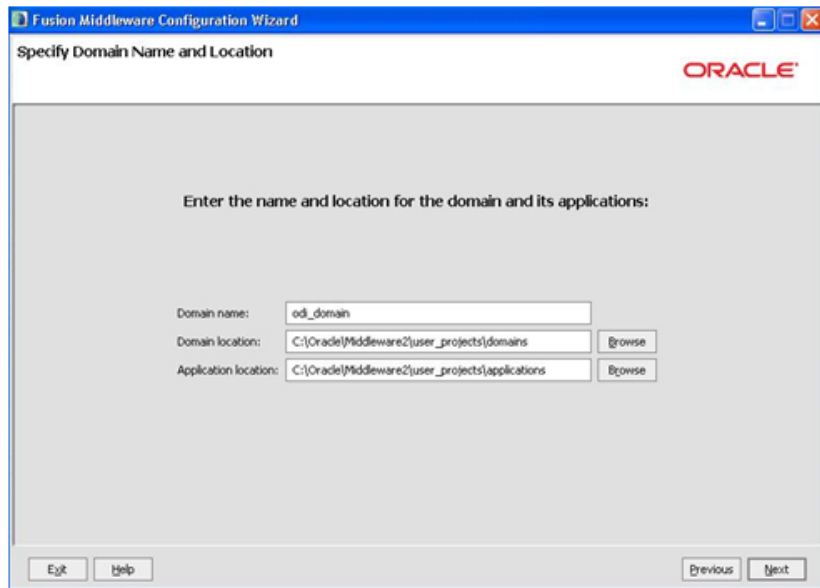


Then, click **Next** to proceed.

4. Specify the Domain Name and Location.

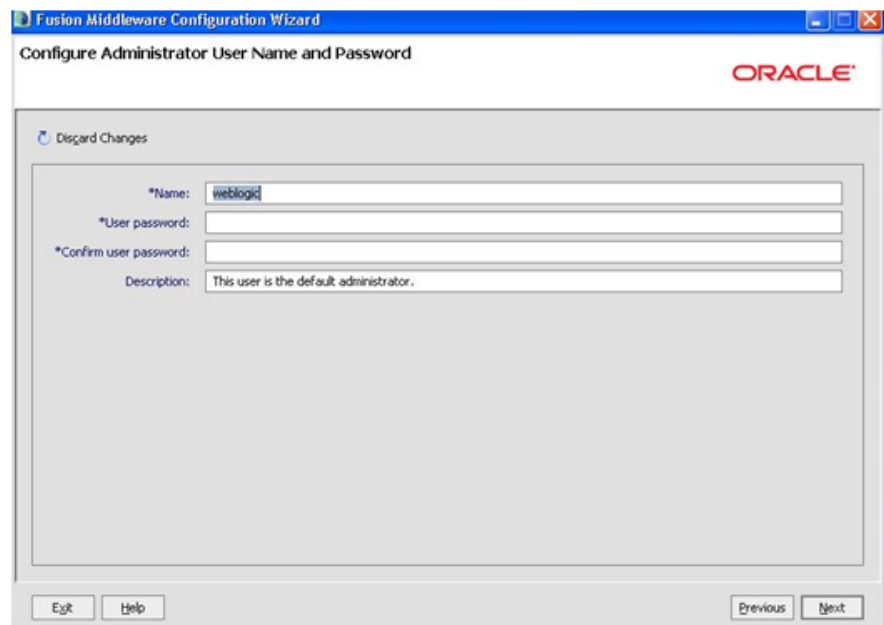
Provide the name: odi_domain

Location will be default.



Click **Next** to proceed.

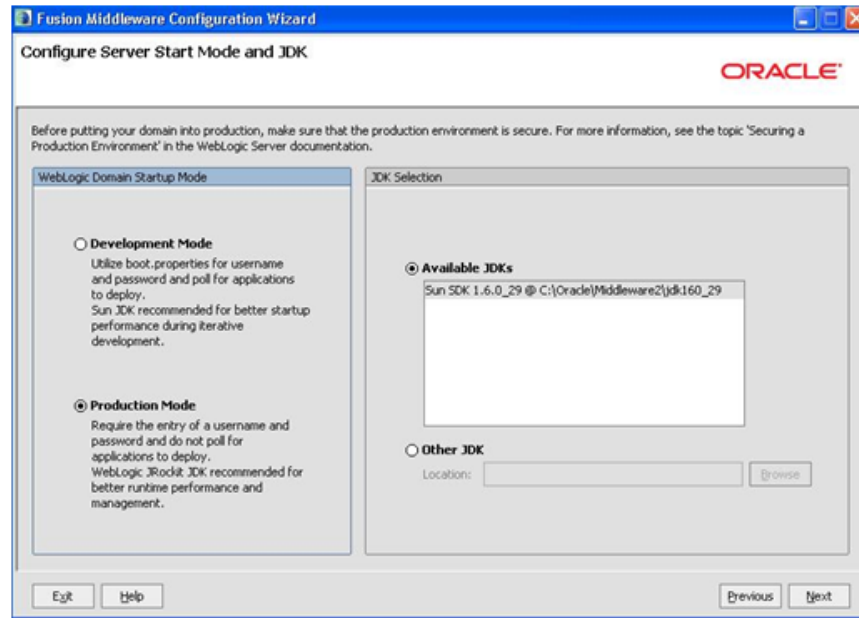
5. Configure Admin UserName and password for WebLogic.
Provide the WebLogic password



Click **Next**.

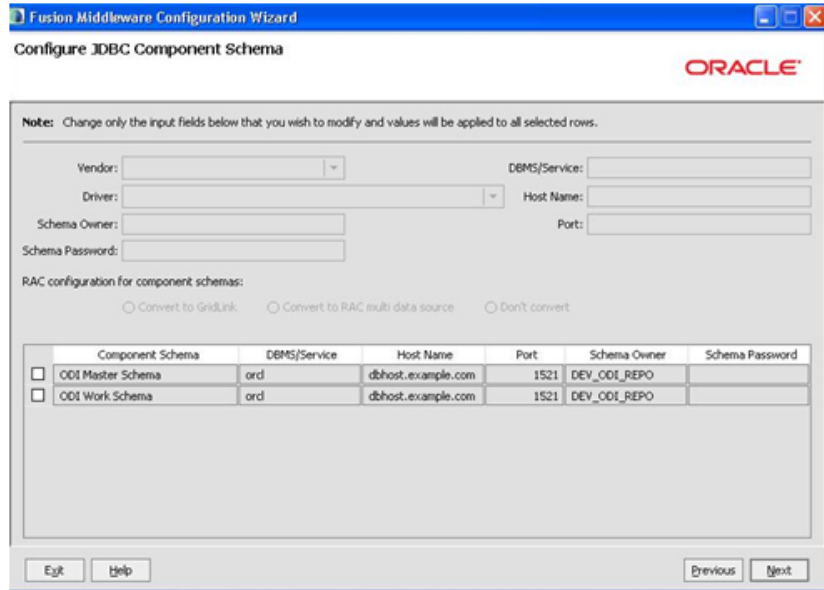
6. Configure **Server StartUp Mode** and **JDK**.
Select **Production Mode**.

Provide the JDK 1.6.0_20.



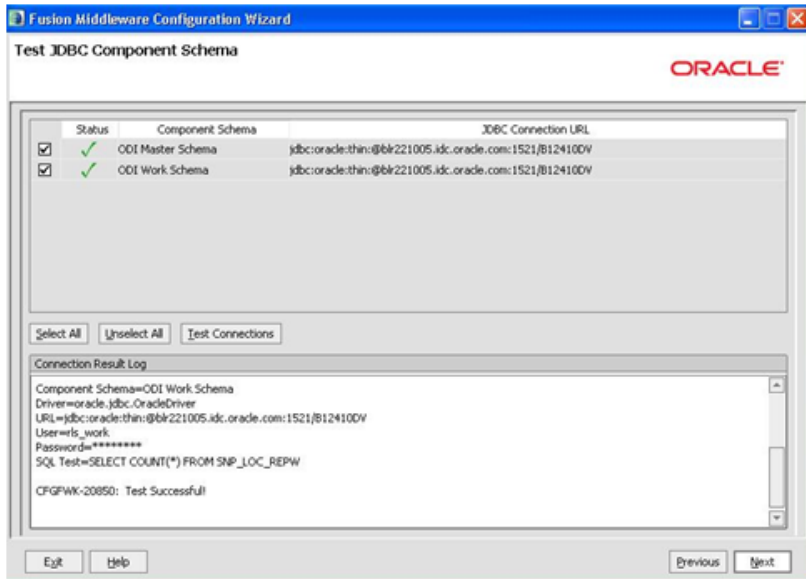
7. Configure **JDBC Component Schema**.
Select the checkbox **ODI Master Schema** and provide the below details:
 - DBMS/Service: Target Database Name
 - Host Name: Database Serverhost
 - Port: Database Port
 - Schema Owner: MASTER_REPO
 - Schema Password: MASTER_REPO Password
8. Deselect the checkbox **ODI Master Schema**.
9. Select the checkbox **ODI Work Schema**. Provide the below details:
 - DBMS/Service: Target Database Name
 - Host Name: Database Serverhost
 - Port: Database Port
 - Schema Owner: WORK_REPO

- Schema Password: WORK_REPO Password



Click **Next** to proceed.

10. Test JDBC Component Schema by selecting **Select All** and **Test Connections**.

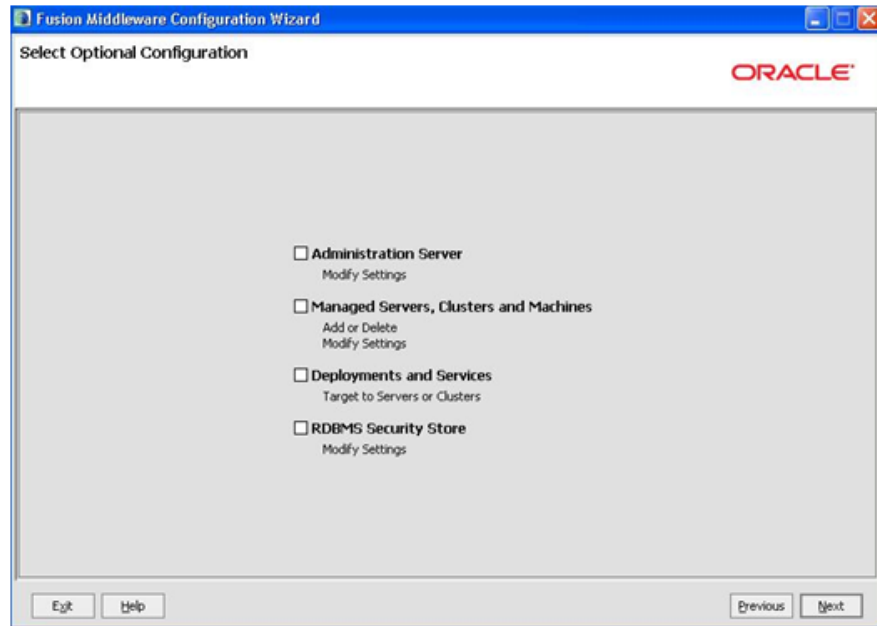


Click **Next** to proceed.

11. On the **Select Optional Configuration** page, select the following checkboxes:

- Administration Server

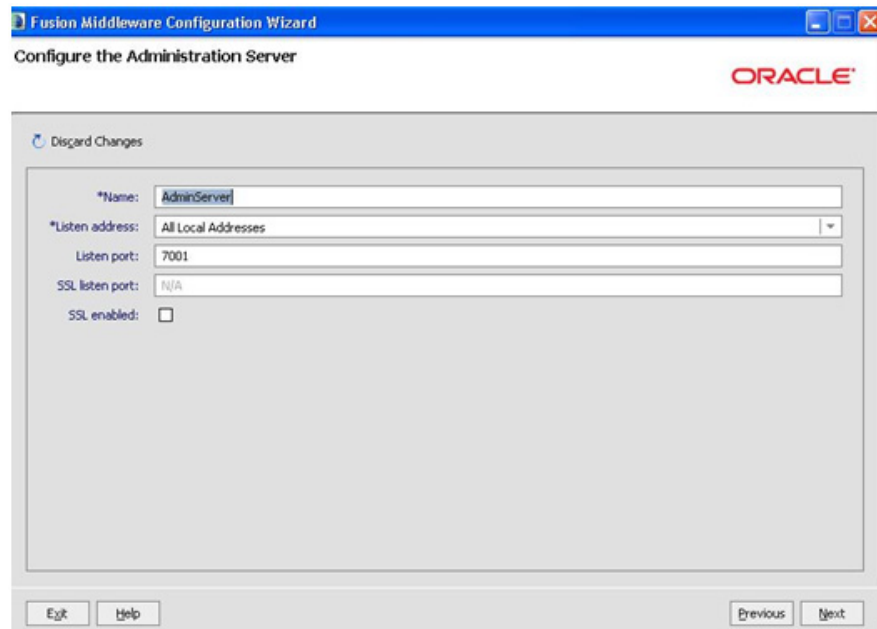
- Managed Server, Clusters and Machines



Click **Next** to proceed.

12. Configure the Administration server:

Provide the listening port, which is not in use.



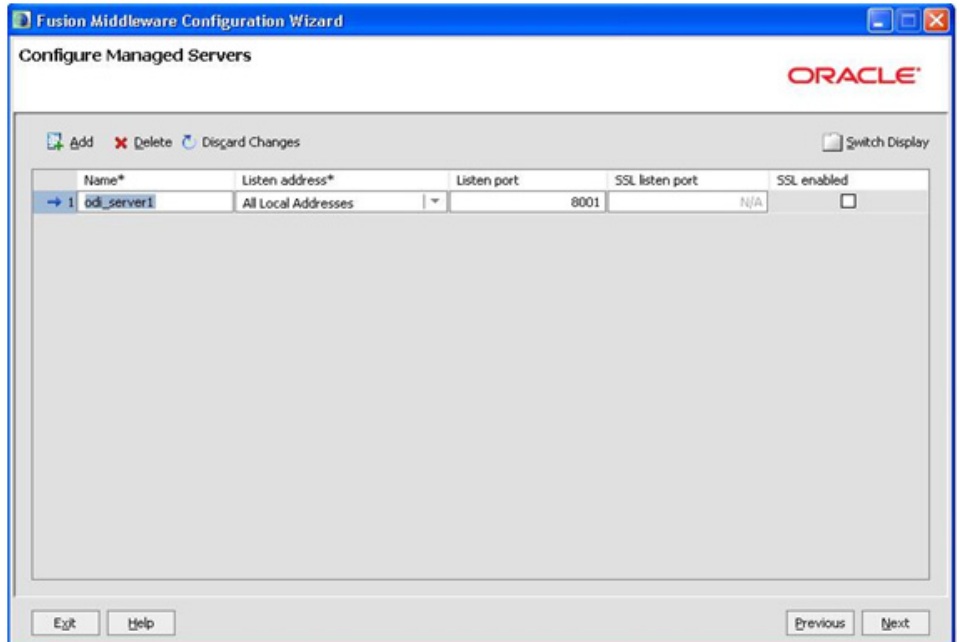
Click **Next** to proceed.

13. Configure the Managed servers by providing the following details:

Name: odi_server1

Listen Address: All Local Addresses

Port: <Provide the port>, which is configured in the Menu configuration of installation>
ODI Agent Configuration >ODI WebLogic Agent Port>.



Configure **Cluster**.

Click **Next** to proceed.

14. Configure Machines.

Click **Next** to proceed

15. Assign Servers to Machines.

Click **Next** to proceed.

16. Configuration Summary.

Click **Create** to create the domain ODI_DOMAIN.

17. After the domain is created, go to **Domain Location**, create **boot.properties** file for WebLogic login.

18. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security folder if it was not created earlier.

19. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security, then create boot.properties with the below values:

username=weblogic

password=Weblogic password

20. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/odi_server1/security folder if it is not present.

21. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/odi_server1/security, and then create boot.properties with the below values:

username=weblogic

password=Weblogic password

Starting the WebLogic Admin Server

Perform the following steps:

1. In the command shell, change directory to the directory of the WLS Home -
<MW_HOME>/user_projects/domains/odi_domain/bin
2. Execute the **startweblogic** command.

For Unix:

- `nohup ./ startWebLogic.sh > startWebLogic.log &`

For Windows:

- Run **startWebLogic.cmd**.

Authenticating the Oracle Data Integrator Supervisor User in WebLogic and Starting the Managed Server

Perform the following steps:

1. Go to <MW_HOME>/oracle_common/common/bin.
2. Execute the following command:

For Unix:

```
./wlst.sh
```

For Windows:

```
wlst.cmd
```

3. To connect to the running Admin server, execute the following command:

```
connect('<Weblogic User>', '<Weblogic password>', 't3://  
<WEBLOGICHOST>:<WEBLOGIC ADMIN PORT>')
```

For example: `connect('weblogic','weblogic123','t3://localhost:7001')`

4. Execute the following command to add the correct credential store for Oracle Data Integrator Supervisor:

```
createCred (map="oracle.odi.credmap", key="SUPERVISOR",  
user="SUPERVISOR", password="<SUPERVISOR Password>", desc="ODI  
SUPERVISOR Credential")
```

5. To exit **WebLogic Scripting Tool (WLST)**, execute the **exit()** command.

To start the managed server **odi_server1**

Perform the following steps:

1. Change directory to WLS Home -<MW_HOME>/user_projects/domains/odi_domain/bin and execute the below commands:

For Unix:

```
nohup ./startManagedWebLogic.sh odi_server1 >  
StartManagedWeblogic.log &
```

For Windows:

```
Run StartManagedWeblogic.cmd odi_server1
```

2. From the **Oracle Data Integrator Studio**, navigate to **Topology > Agents > OracleDI Agent**. Right-click on **OracleDI Agent** and click **Test** to test connectivity of configured Oracle Data Integrator Java EE agent.

Generating the Security and Starting the Oracle Data Integrator Schedule

Perform the following steps:

1. Edit the database name with the name of your database in OraGenSec.bat and run it from BI251/DWADM/Security folder.
2. Log into the Oracle Data Integrator studio and navigate to **Designer > Load Plans and Scenarios > Framework**.
3. Right-click **B1_INITIAL_SETUP_PKG Version 001** and execute.
4. Select context global and **WLS_AGENT** as logical agent, and then click **OK**.
5. Go to **Operator** and view the logs for successful execution of package.
6. In **Oracle Data Integrator Studio**, navigate to **Designer > Load Plans and Scenarios > Framework > B1_RUN_ALL Version 001 > Scheduling**.
7. Right-click on **Scheduling** and select **New Scheduling** option.
8. Select the context global, agent as **WLS_AGENT** and log level as 1.
9. To specify how often the scheduler should run, navigate to the **Execution Cycle** tab of the Scheduler and select the '**Many Times**' radio button. Set the interval between repetitions.
10. Navigate to the **Topology > Agents > OracleDIAgent**.
11. Right-click on the **OracleDIAgent** and click on **Update Schedule**.

Upgrading Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder

This section describes the Oracle Warehouse Builder based ETL component installation:

- **Copying and Decompressing the Install Media**
- **Setting Permissions for the Cistab File in UNIX**
- **Configuring and Upgrading the Oracle Warehouse Builder Workspace**
- **Post-upgrade Tasks**

Copying and Decompressing the Install Media

The Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder installation file is delivered in zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator user ID.

Perform the following Steps:

1. Download the Oracle Utilities Analytics V2.5.1ETL Component Based on Oracle Warehouse Builder part (**Oracle Utilities Analytics V2.5.1ETL Component Based on OWB Multiplatform.zip**) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the database server host as the Oracle Utilities Analytics Administrator User ID (default cases).
3. Create a temporary directory, such as c:\OUA\temp or /OUA/temp (Referred to <TEMPDIR> below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory can be deleted after successful installation.
4. Unzip **Oracle Utilities Analytics V2.5.1ETL Component Based on OWB Multiplatform.zip** to <TEMPDIR>.

5. Decompress the file BI.OWB.V2.5.1-MultiPlatform.jar as follows:

- cd <TEMPDIR>
- jar -xvf BI.OWB.V2.5.1-MultiPlatform.jar

Note: You should have Java JDK installed on the machine used to (un)jar the Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>. A sub-directory named "**BI.OWB.V2.5.1**" is created. It contains the installation software for the Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder.

Setting Permissions for the Cistab File in UNIX

Every Oracle Utilities Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle Administrator User ID, this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/BI.OWB.V2.5.1 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Analytics Administrator User ID so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, there is no need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility. No new registration occurs. The install utility interactively gives instructions about every step in each specific case.

If you are planning to upgrade an existing environment, ensure that you have taken a backup prior to the initiating the installation process. The installation utility by itself does not create a backup of the existing environment.

Configuring and Upgrading the Oracle Warehouse Builder Workspace

This section describes how to configure the Oracle Warehouse Builder workspace:

- **Upgrading Oracle Utilities Analytics If You Are Using 11g Database**
- **Upgrading Oracle Utilities Analytics ETL Component Based on Oracle Warehouse Builder If You Have Upgraded Oracle Database Server from 11.2.0.3 to 12.1.0.1.0**

Upgrading Oracle Utilities Analytics If You Are Using 11g Database

Perform the following steps:

1. Back up the database using the backup strategy employed at your site.
2. Set the Oracle Warehouse Builder environment. To set the Oracle Warehouse Builder environment, follow the below steps:
 - Connect to the RELADM schema and execute the query "select server_name,env_dir from B1_INSTALL_COMPONENTS where comp_cd='BI_OWB';" to get the server and Oracle Warehouse Builder environment directory details where Oracle Warehouse Builder environment is set up.
 - cd <OWB environment directory>/etc and open the ENVIRON.INI file.

- The value of the SPLENVIRON variable is the Oracle Warehouse Builder environment name. Note down the Oracle Warehouse Builder environment name.
 - cd <OWB environment directory>/bin and execute ksh ./splenv.sh -e <OWB environment name>.
- Delete location.mdl and project.mdl files from \$SPLEBASE/OWB/MetadataFiles directory if they are present.
3. Change the current directory to <TEMPDIR>/BI.OWB.V2.5.1.
 4. Run ksh ./install.sh.
Do you want to reinstall or Upgrade it? (Y/N):Y.
Choose any option (1,2,3,4,5,6,7,8, <P> Process, <X> Exit): P.
 5. cd \$SPLEBASE/tmp.
 6. Remove all the content from the tmp folder. Execute rm -rf*.
 7. cd \$SPLEBASE/bin.
 8. Run **ksh ./stopFileprocessordaeomon.sh**. It is recommended to wait until the file processor stops. It can be verified by executing "ps -ef|grep File" command.

Upgrading Oracle Utilities Analytics ETL Component Based on Oracle Warehouse Builder If You Have Upgraded Oracle Database Server from 11.2.0.3 to 12.1.0.1.0

Note: During Oracle Warehouse Builder installation, if the target DB is 12c, Oracle Warehouse Builder based ETL component should be installed in a separate Oracle Utilities Analytics environment (do not use the Oracle Utilities Analytics environment where Oracle Data Integrator based ELT component and Dashboard component are installed). During configuration of Oracle Warehouse Builder component, provide Oracle Warehouse Builder home as the DB home. This is needed for the **owbdeploy** script to pick the Oracle Warehouse Builder executables from the right location. If target DB is 11g, there are no such restrictions. Oracle Warehouse Builder can be installed in the same Oracle Utilities Analytics environment as other components (Oracle Data Integrator based ELT component and Dashboard component). In this case, provide 11g DB home during Oracle Warehouse Builder configuration.

Before upgrading, perform the following:

1. Verify that the prerequisite software products mentioned in the section **Prerequisite Software for Oracle Utilities Analytics ETL Component based on Oracle Warehouse Builder** are installed.
2. Ensure that 11.2.0.3 standalone Oracle Warehouse Builder is installed on the database server. This will be your new OWB_HOME.
3. Copy the entire owb/bin/admin directory from the old 11g installation to the new OWB_HOME/bin/admin directory.
4. Apply the patch 16568042 to new OWB home.
5. sqlplus OWBSYS/<OWBSYS_PASSWORD>.
6. Execute **OWB_HOME/owb/UnifiedRepos/reset_owbcc_home.sql**.
7. Provide the new OWB_HOME as input.

After performing the above steps, proceed with upgrading Oracle Utilities Analytics ETL component based on Oracle Warehouse Builder Package steps:

1. Set the Oracle Warehouse Builder environment. To set the Oracle Warehouse Builder environment, follow the below steps:
 - Connect to the RELADM schema and execute the query "select server_name,env_dir from B1_INSTALL_COMPONENTS where comp_cd='BI_OW';" to get the server and Oracle

Warehouse Builder environment directory details where Oracle Warehouse Builder environment is set up.

- Create temp directory on the server where Oracle Warehouse Builder environment is set up.
- Copy the BI.OWB.V2.5.1-MultiPlatform.jar inside temp directory and execute `jar -xvf BI.OWB.V2.5.1-MultiPlatform.jar`.

Note: BI.OWB.V2.5.1-MultiPlatform.jar is inside Oracle Utilities Analytics V2.5.1 ETL Component Based on OWB Multiplatform directory.

- `cd <OWB environment directory>/etc` and open the ENVIRON.INI file.
 - The value of SPLENVIRON variable is the Oracle Warehouse Builder environment name. Note down the Oracle Warehouse Builder environment name.
 - `cd <OWB environment directory>/bin` and execute `ksh ./splenviron.sh -e <OWB environment name>`.
2. `cd $SPLEBASE/bin`.
 3. Run **ksh ./stopFileprocessordaeomon.sh**. It is recommended to wait until the file processor stops. It can be verified by executing "`ps -ef|grep File`" command.

4. Open the new terminal/window and navigate to downloaded package.

Now, proceed with the installation of Oracle Utilities Analytics 2.5.1

Go to the current directory `<TEMPDIR>/BI.OWB.V2.5.1`.

5. Execute the following script on both UNIX and Windows:
Make sure to provide the new OWB_HOME path.

For UNIX:

- `export ORACLE_CLIENT_HOME=<OWB_HOME>`
- `export PERL_HOME=$ORACLE_CLIENT_HOME/perl`
- `export PATH=$PATH:$PERL_HOME/bin`
- Run `ksh ./install.sh`

For Windows:

- `set ORACLE_CLIENT_HOME=<OWB_HOME>`
- `set PERL_HOME=%ORACLE_CLIENT_HOME%\perl`
- `set PATH=%PERL_HOME%\bin;%PATH%`
- Run `Install.cmd`

Note: On UNIX, ensure that you have the proper execute permission on `install.sh`.

6. The Oracle Utilities Analytics specific menu appears.
7. Select each menu item to configure the values.
For the detailed description of the values, see **Configuration Worksheet for ETL Component based on Oracle Warehouse Builder Installation**.

Note: All the schema names must be entered in the upper case.

8. After the configuring the values, press **P** to continue the installation.

-
9. Connect to database with the sys user and execute the below command:

```
EXECUTE
DBMS_NETWORK_ACL_ADMIN.CREATE_ACL('acl_for_owb_cc.xml','ACL for
Control Center','OWBSYS', TRUE, 'connect');
EXECUTE
DBMS_NETWORK_ACL_ADMIN.ASSIGN_ACL('acl_for_owb_cc.xml','internal-mail-
router.oracle.com', 25);
COMMIT;
SELECT
acl,host,
DECODE(DBMS_NETWORK_ACL_ADMIN.check_privilege_aclid(aclid,'OWBSYS',
'connect'),1, 'GRANTED', 0, 'DENIED', NULL) privilege
FROM dba_network_acls ;
```

It shows the result as:

```
ACL
-----
-----
HOST
-----
-----
PRIVILEGE
-----
/sys/acls/acl_for_owb_cc.xml
internal-mail-router.oracle.com
GRANTED
```

10. Modify the contents of the `<owb-home>/owb/bin/admin/Runtime.properties` file from the following to the contents mentioned:

```
property.RuntimePlatform.0.NativeExecution.FTP.security_constraint
= DISABLED
property.RuntimePlatform.0.NativeExecution.Shell.security_constraint
=
DISABLED
property.RuntimePlatform.0.NativeExecution.SQLPlus.security_constraint
=DISABLED
To
property.RuntimePlatform.0.NativeExecution.FTP.security_constraint
= NATIVE_JAVA
property.RuntimePlatform.0.NativeExecution.Shell.security_constraint
= NATIVE_JAVA
property.RuntimePlatform.0.NativeExecution.SQLPlus.security_constraint
= NATIVE_JAVA
```

11. Connect to the OWBSYS user and execute the `<owb-home>/owb/rtp/sql/stop_service.sql`.
12. Connect to the OWBSYS user and execute the `<owb-home>/owb/rtp/sql/start_service.sql`.
13. Log in to Oracle Warehouse Builder Design Center. Select **Tools > Preferences > OWB**. Click on **Security** parameters. You will find a property called “Persist location password in metadata”. Select the check box, and then click **OK** to exit.
14. Navigate to **Locations > Locations > Database**.
Expand **Oracle** tab.
Double-click the **SPL_BI_TGT_LOC** location. Enter the password, test connection and Click **OK**.
15. Navigate to **Locations > Locations > Process Flow and Schedules**.
Expand **Oracle Workflow**.

Double click the SPL_BI_WF_LOC location. Enter the password, test connection and click **OK**.

Environment Installation Options

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

Configure each item in the above list for successful installation. Choose any option from the menu items: (1, 2 <P> Process, <X> Exit).

Environment Configuration

1. Environment Description
Environment Description:
2. Database Configuration
OWB WorkSpace Owner:
OWB WorkSpace Owner Password:
Database Name:
Database Server:
Database Port:
3. Design repository configuration
OWB WorkSpace User:
OWB Workspace user Password:
OWB WorkSpace Name:
DWADM SCHEMA NAME:
DWADM SCHEMA Password:
WORKFLOW MANAGER SCHEMA NAME:
WORKFLOW MANAGER SCHEMA Password:
4. Database character set configuration
Database Character set: AL32UTF8
5. Editing process flow configuration
Repository Operating System:
Perl Compiler location:
Data and control files location:
Separator to be used:
File Manager location:
6. Email configuration
Email ID of Sender:
Email ID for Reply-To address:
Email ID of Receiver:
SMTP server:
SMTP server port:
7. Control Centre Configuration
Repository Control Center Name:
8. External data source configuration
Path of the External Datasource:
Path of the External Datasource LOG:
File Processor Daemon Execution Switch:
File Processor Extract Max Load:
File Processor Scheduler Poll Duration:60

Configure each item in the above list for successful installation. Choose the any option from the menu items (1, 2, 3, 4, 5, 6, 7, 8 <P> Process, <X> Exit).

After completing the parameter setup steps, proceed with the option **P**. Write Configure file.

Once the install is completed successfully, execute the post-upgrade steps as described in the section **Post-upgrade Tasks**.

Post-upgrade Tasks

The post-upgrade tasks involve the following:

- **Cleaning up Unused Oracle Warehouse Builder Objects from Oracle Warehouse Builder**
- **Deploying the ETL Workflows on Oracle Warehouse Builder**
- **Deploying the Oracle Warehouse Builder Workflows**
- **Deploying the Materialized Views**
- **Starting the File Processor**
- **Generating the Security**
- **Generating the Database Statistics**

Cleaning up Unused Oracle Warehouse Builder Objects from Oracle Warehouse Builder

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.sh -e <envname> command.
3. cd \$SPLEBASE/bin.
4. Run the **ksh ./drop_unused_owb_objects.sh**.

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.cmd -e <envname> command.
3. cd %SPLEBASE%\bin.
4. Run the **drop_unused_owb_objects.cmd**.

After running drop_unused_owb_objects.sh/cmd, connect to the target database as DWADM user and execute the command:

```
DROP package spl_oms_snapshot_pkg;
```

Deploying the ETL Workflows on Oracle Warehouse Builder

In UNIX, you may get a Java heap space error while importing the MDL file. To resolve this error you need to make changes in the OMBPlus.sh file, located at: \$OWB_HOME/owb/bin/ unix/ OMBPlus.sh.

In the following code, change the value -Xmx768M to -Xmx1024M, and then the -Dlimit value 768M to 1024M.

```
$JAVAPATH/bin/java $JAVA64FLAG -Xms64M -Xmx768M $OPTS -Dlimit=768M  
- DORACLE_HOME=$ORACLE_HOME -DOWBCC_HOME=$ORACLE_HOME -  
DTCLLIBPATH="$TCLLIBPATH" -  
DMARATHON_RETRY_COUNT="$MARATHON_RETRY_COUNT" -  
DMARATHON_RETRY_INTERVAL="$MARATHON_RETRY_INTERVAL"
```

You need to make this value larger than 1024MB (1GB) depending on the size of the import: \$CLASSPATH_LAUNCHER oracle.owb.scripting.OMBShell \$*.

Deploying the Oracle Warehouse Builder Workflows

This procedure needs to be performed if changes are made to the parallel settings on external tables, materialized views, or mappings on an existing installation and needs to be retained during the upgrade process.

Run the following command to generate a report on the parallel settings that is currently set in the customer repository on external tables, materialized views and mappings.

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment by executing the `./splenv.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the **ksh ./parallelSetup.sh analyze.**

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment by executing the `./splenv.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run the **parallelSetup.cmd analyze.**
5. This generates files under <SPLEBASE>/etc folder.
6. Review the generated files for the existing settings and make modifications if necessary. Once the files are reviewed, perform the following steps to merge the existing settings with the default settings.

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment by executing the `./splenv.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run the **ksh ./parallelSetup.sh merge.**

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment by executing the `./splenv.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. Run `parallelSetup.cmd merge.`
5. Review the following files under <SPLEBASE>/etc and verify that the existing values have been merged correctly before proceeding:

```
cm-parallel-tables.txt
cm-parallel-mvs.txt
cm-parallel-maps.txt
```

6. Below is the format of parallel*.txt to change the <Degree> of parallelism in above-listed files:

```
parallel-tables.txt file format: <Object_name>:<Degree>
parallel-mvs.txt file format: <MV_Name>:<Fact_Table>:<Degree>
parallel-maps.txt file format: <Object_name>:<Table_Name>:<Degree>
```

Run the following script. Note that the script may take several minutes to complete.

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.sh -e <envname> command.
3. cd \$SPLEBASE/bin.
4. Run the **ksh ./Owbdeploy.sh**.

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.cmd -e <envname> command.
3. cd %SPLEBASE%\bin.
4. Run the **owbdeploy.cmd**.

If you encounter below issue during deployment:

```
2014/09/09:23:39 <OMB_SUCCESS> OMB05608: Connection to a Control
Center has not been made.
2014/09/09:23:39 <ERROR> OMB05608: Connection to a Control Center
has not been made.
2014/09/09:23:39 <ERROR> Unable to unregister Location
SPL_BI_TGT_LOC
2014/09/09:23:39 <INFO> See the Log at /scratch/bi_oradata_01/
QABlds/OUA_251_12c_OWB_ENV/bin/scripts/../../logs/system/
log_OWBDeployment_20140909_2338.txt
2014/09/09:23:39 <ERROR> An error occured .Do you want continue
?(Y/N) : N
```

Follow the below steps and re-run the **Owbdeploy.sh/ Owbdeploy.cmd** script.

1. Log into Oracle Warehouse Builder client.
2. Navigate to **SPL_BI>Configurations**.
Double-click on the **DEFAULT_CONFIGURATION**.
Navigate to Control Center. Select the correct control center from drop-down that is configured while setting up the Oracle Warehouse Builder environment and click **OK**.
Click **Save**.
3. Run the **Owbdeploy.sh/ Owbdeploy.cmd** script again.

Deploying the Materialized Views

Run the following commands for deploying materialized views.

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment by executing the ./splenviron.sh -e <envname> command.
3. Run the below script for upgrading the materialized views:
 - cd \$PLEBASE/bin
 - Run the **ksh ./upgradeViews.sh**

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment by executing the ./splenviron.cmd -e <envname> command.
3. Run the below script for upgrading the materialized views.
 - cd %SPLEBASE%\bin

-
- Run `upgradeViews.cmd`
4. Once deployment is complete, remove the `<SPLEBASE>/tmp` content to ensure all the complete files are removed:

Starting the File Processor

For UNIX:

```
cd $SPLEBASE/bin  
  
nohup ksh ./startFileprocessordaeomon.sh >&1 &
```

For Windows:

```
startFileprocessordaeomon.cmd
```

Note: Go to `<SPLEBASE>/logs/system` to view the file processor log.

Generating the Security

Edit `database-name` with the name of your database in **OraGenSec.bat** after completing the Oracle Warehouse Builder deployment and run it from `BI251/DWADM/Security` folder.

Generating the Database Statistics

During the installation process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

Upgrading Oracle Utilities Analytics Dashboard Component

This section describes the dashboard component installation and includes the following:

- **Prerequisite to the Dashboard Component Upgrade**
- **Copying and Decompressing the Install Media**
- **Setting Permissions for the Cistab File in UNIX**
- **Oracle Utilities Analytics Dashboard Package Upgrade Steps**
- **Merging the RPD Files**
- **Post-upgrade Tasks**

Prerequisite to the Dashboard Component Upgrade

Oracle Utilities Analytics Dashboard component v2.5.1 requires Oracle Business Intelligence Enterprise Edition version 11.1.1.7.1. Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 should be installed in a new Middleware Home before proceeding with Oracle Utilities Analytics Dashboard component upgrade. Refer to Oracle Business Intelligence Enterprise Edition documentation for the details of installing 11.1.1.7.1.

Copying and Decompressing the Install Media

The Oracle Utilities Analytics Dashboard component installation file is delivered in a zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator User ID.

1. Download the Oracle Utilities Analytics V2.5.1Dashboard Component part (**Oracle Utilities Analytics V2.5.1Dashboard Component Multiplatform.zip**) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the application server host (where Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 software is installed) as the Oracle Utilities Analytics Administrator User ID (default ceases).

-
3. Create a temporary directory, such as `c:\OUA\temp` or `/OUA/temp` (Referred as `<TEMPDIR>` below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory can be deleted after successful installation.
 4. Unzip the **Oracle Utilities Analytics V2.5.1Dashboard Component Multiplatform.zip** to `<TEMPDIR>`.
 5. Decompress the file **BI.OBIEE.V2.5.1-MultiPlatform.jar**:
 - `cd <TEMPDIR>`
 - `jar -xvf BI.OBIEE.V2.5.1-MultiPlatform.jar`

Note: You should have Java JDK installed on the machine used to (un)jar the Oracle Utilities Analytics dashboard component installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>.

A sub-directory named “**BI.OBIEE.V2.5.1**” is created. It contains the installation software for the Oracle Utilities Analytics Dashboard component.

Setting Permissions for the Cistab File in UNIX

Note: Every Oracle Utilities Analytics environment installed on a server must be registered in the `/etc/cistab` file located on that server.

On UNIX servers, generally only the root user ID has write permissions to the `/etc` directory. Since the installation process is run by the Oracle administrator user ID, this user ID may not be able to write to `/etc/cistab` table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the `<TEMPDIR>/BI.OBIEE.V2.5.1` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of `/etc/cistab` file to the Oracle Utilities Analytics administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of `/etc/cistab` entry is done by the install utility. No new registration occurs. The install utility interactively gives instructions about every step in each specific case.

To upgrade an existing environment, it is recommended that a backup be taken before initiating the installation process. The installation utility by itself does not create a backup of the existing environment.

Oracle Utilities Analytics Dashboard Package Upgrade Steps

Before upgrading, verify that the prerequisite software products mentioned in the section **Prerequisite Software for Oracle Utilities Analytics Dashboard Component** are installed.

To upgrade the Oracle Utilities Analytics Dashboard package, follow these steps.

1. Set the Dashboard environment. To set the Dashboard environment, follow the below steps.
 - Connect to the RELADM schema and execute the query "select server_name,env_dir from B1_INSTALL_COMPONENTS where comp_cd='BI_OBIEE';" to get the server and Dashboard environment directory details where Dashboard environment is set up.

-
- cd <Dashboard environment directory>/etc and open the ENVIRON.INI file.
 - The value of SPLENVIRON variable is the Dashboard environment name. Note down the Dashboard environment name.
 - cd <Dashboard environment directory>/bin and execute ksh ./splenviron.sh -e <Dashboard environment name>
2. Change the current directory to <TEMPDIR>/BI.OBIEE.V2.5.1.
 3. Run the ksh ./install.sh.
Do you want to reinstall or Upgrade it? (Y/N): Y
Choose any option (1,2,3, <P> Process, <X> Exit): P

Merging the RPD Files

If you have made custom changes to deployed RPD, follow the Oracle Business Intelligence Enterprise Edition documentation for merging.

Post-upgrade Tasks

Post-upgrade tasks involve the following:

- **Deploying the Repository (RPD) File**
- **Deploying the Web Catalog**
- **Configuring and Deploying the MapViewer**
- **Deploying the Write Back**
- **Enabling the Analytics Help**
- **Enabling the Auto Complete Feature on Oracle Business Intelligence Enterprise Edition 11.1.1.7.1**

Deploying the Repository (RPD) File

If you have not made any changes to the deployed RPD, then take the RPD file from the following location: <install_dir>/Reports/rpd/ UtilitiesBusinessAnalytics.rpd, where <install_dir> is the Oracle Utilities Analytics Dashboard Package installation directory.

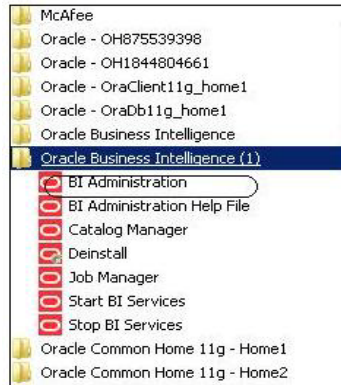
If you have done merging, then take the merged RPD and make the required database changes.

This RPD file should be copied to the windows machine on which Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 is installed.

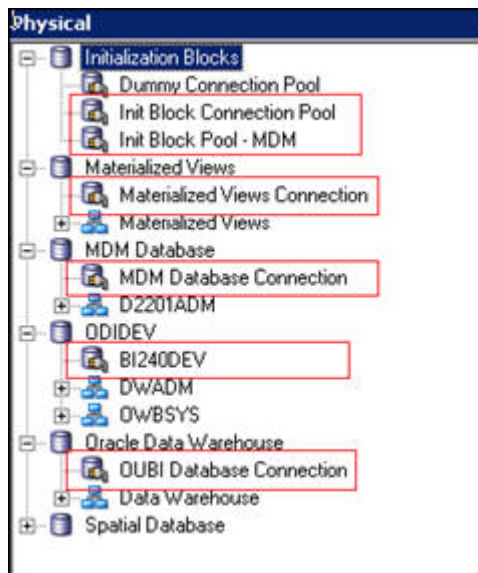
Follow these steps to deploy the RPD file:

1. Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 should be installed on the Windows machine before proceeding with the below steps.
2. Launch the **Administration** Tool from the **Start** menu.
Start > Programs > Oracle Business Intelligence > BI Administration
3. Open the RPD in offline mode by selecting **File > Open > Offline...**

4. Provide the RPD password. The default password is "oracle123".



5. Edit the **Connection Pools** shown below by double-clicking on them.



6. In the **Init Block Connection Pool** group, enter the following:
Datasource name = BI Database name
User name = DWREAD
Password = DWREAD User password
7. In the **Init Block Pool - MDM** group, provide the following (only for MDM):
Datasource name = MDM database name
User name = CISUSER
Password = CISUSER User password
8. In the **Materialized Views Connection** group, enter the following:
Datasource name = BI Database name
User name =DWREAD
Password = DWREAD User password
9. In the **MDM Database Connection** group, provide the following (only for MDM):
Datasource name = MDM database name

User name = CISUSER

Password = CISUSER User password

10. In the **ODIDEV Connection Pool** group, provide the following:

Datasource name = BI database name

User name = DWUSER

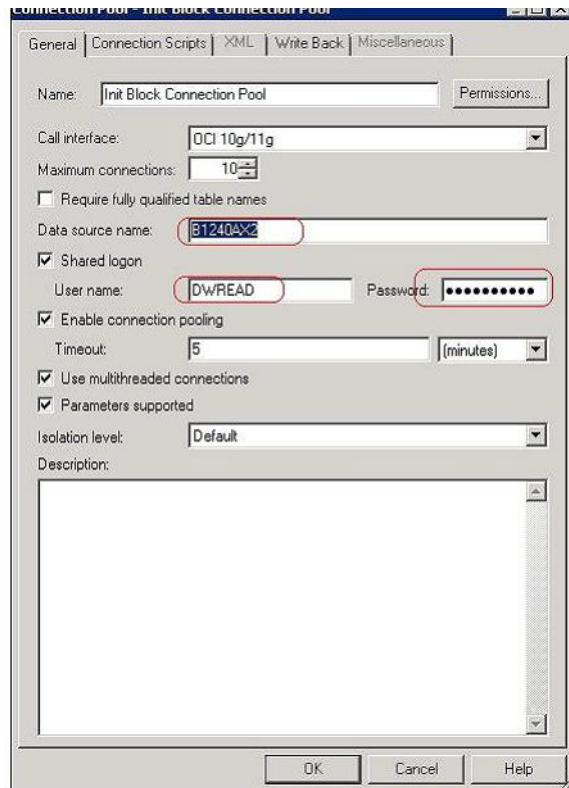
Password = DWUSER User password

11. In the **OUBI Database Connection** group, provide the following:

Datasource name = BI database name

User name = DWREAD

Password = DWREAD User password



12. Click **Save**.

Note: Click **Yes** when you see the prompt '*Do you wish to check global consistency?*' and ignore any warnings that appear after consistency check is complete.

13. Log into the Oracle Business Intelligence Enterprise Edition Enterprise Manager console.
14. Navigate to **BI Instance > Coreapplication > Deployment**.
15. Lock and edit.
The repository text box will be enabled.
16. Browse to the modified rpd file and submit.
17. Provide the RPD password “oracle123”, and then click **Apply**.
18. Activate the changes and then restart Oracle Utilities Analytics services.

Note: All the above-mentioned database sets of the connection pool should be updated in the **tnsnames.ora** file in <OBIEE_INSTALL_DIR>/Oracle_BI1/network/admin.

Deploying the Web Catalog

To deploy the web catalogs, follow these steps:

1. Go to <Catalog location>/root/shared and delete the existing catalogs that were delivered out-of-box with the Oracle Utilities Analytics product in the previous release. Any catalog added by you can be retained.
2. Go to <Catalog location>/root/system and remove **spatialmetadata** directory and **spatialmetadata.atr** file.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenv.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. Run **ksh ./deploycatalog.sh**.
5. Enter the physical catalogs location configured in the Enterprise Manager.
Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenv.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. **deploycatalog.cmd**.
5. Enter the Physical Catalogs location configured in the Enterprise Manager.
Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

Configuring and Deploying the MapViewer

Configuring and deploying the MapViewer involves the following:

- **Configuring the MapViewer**
- **Modifying the instanceconfig.xml**

Configuring the MapViewer

1. Update the mapViewerConfig file with the below-mentioned tags:
File location: <OBIEE_INSTALL_DIR>/Oracle_BI1/bifoundation/jee/
mapviewer.ear/web.war/WEB-INF/conf/
File: mapViewerConfig.xml

If there is a proxy used, insert the list of host names for all the third-party service providers in the security_config node:

```
<proxy_enabled_hosts>
  elocation.oracle.com,maps.weatherbug.com,direct.weatherbug.com,api
.wxbug.net,de.tiles.weatherbug.com
</proxy_enabled_hosts>
```

2. Add the following ns_data_provider node:

```
<ns_data_provider id="obieeNsdp"
  class="com.oracle.utilities.birdseye.BirdseyeNSDP" />
```

3. Add the current map_tile_server with the following map_tile_server node:

```
<map_tile_server>
<tile_storage default_root_path="/mytilecache/" />
</map_tile_server>
```

4. Add the following with the appropriate values:

```
<map_data_source name="MAPCONN"
  jdbc_host="<DB_HOST>"
  jdbc_sid="<SID of the Database>"
  jdbc_port="<DB_PORT>"
  jdbc_user="DWADM"
  jdbc_password="!<DWADM PASSWORD>" jdbc_mode="thin"
  number_of_mappers="32" allow_jdbc_theme_based_foi="true"
 />
```

Note: The exclamatory mark in the front of the password ensures that the password is encrypted.

Modifying the instanceconfig.xml

Update the instanceconfig.xml file after taking a backup.

The following are the examples of the location of **instanceconfig.xml** file.

For UNIX:

```
<OBIEE_INSTALL_DIR>/instances/instance1/config/
OracleBIPresentationServicesComponent/coreapplication_obips1
```

For Windows:

```
<OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentation
ServicesComponent\coreapplication_obips1
```

Perform the following changes to the **instanceconfig.xml** file:

1. Update the security node with the following values. If the security node is not present, add the following code before </Serverinstance>:

```
<Security>
<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
<HttpOnlyCookies>>false</HttpOnlyCookies>
<CookieDomain />
<CookiePath></CookiePath>
</Security>
```

2. Update the following <ServerInstance> element:

```
<LightWriteback>>true</LightWriteback>
```

-
3. Add the following before the end tag `</ServerInstance>`:

```
<UI>
<DefaultStyle>oubi</DefaultStyle>
<DefaultSkin>oubi</DefaultSkin>
</UI>
```

4. Add the following lines in between the `<ServerInstance>` `</ServerInstance>` tags.

```
<Prompts>
<MaxDropDownValues>256</MaxDropDownValues>
<AutoApplyDashboardPromptValues>true</
AutoApplyDashboardPromptValues>
<AutoSearchPromptDialogBox>true</AutoSearchPromptDialogBox>
<AutoCompletePromptDropDowns>
<SupportAutoComplete>true</SupportAutoComplete>
<CaseInsensitive>true</CaseInsensitive>
<MatchingLevel>MatchAll</MatchingLevel>
<ResultsLimit>50</ResultsLimit>
</AutoCompletePromptDropDowns>
</Prompts>
```

Deploying the Write Back

For deploying the Write Back, perform the following steps:

For UNIX:

1. Navigate to `<Install_Dir>/bin` directory.
2. Initialize the environment with the `./splenv.sh -e <envname>` command.
3. `cd $SPLEBASE/bin`.
4. Run `ksh ./deploywriteback.sh`.
5. Log into Analytics and navigate to **Administration>Manage Privileges>WriteBack>Write Back to Database**.
6. Click **Denied:Authenticated User** and select the permission **Granted**.

For Windows:

1. Navigate to `<Install_Dir>/bin` directory.
2. Initialize the environment with the `./splenv.cmd -e <envname>` command.
3. `cd %SPLEBASE%/bin`.
4. Run `deploywriteback.cmd`.
5. Log into Analytics and navigate to **Administration>Manage Privileges>WriteBack>Write Back to Database**.
6. Click **Denied:Authenticated User** and select the permission **Granted**.

Enabling the Analytics Help

To enable the **Analytics' Help**, perform these steps:

1. Download *Oracle Utilities Analytics v2.5.1 User's Guide* from Oracle Software Delivery Cloud ([https:// edelivery.oracle.com](https://edelivery.oracle.com)).
2. After downloading *Oracle Utilities Analytics v2.5.1 User's Guide*, change the name of the `OUA_UserGuide_2.5.1.pdf` file to **OUASA Help.pdf**.
3. Place the **Help** file in `<install_dir>/Skin/res`, where `<install_dir>` is the Oracle Utilities Analytics Dashboard Package installation directory.
4. Run the following commands:

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenvron.sh -e <envname> command.
3. cd \$SPLEBASE/bin.
4. Run ksh ./deployanalyticsear.sh.
5. Enter the WebLogic Domain Console password. For example, weblogic123.

For Windows:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenvron.cmd -e <envname> command.
3. cd %SPLEBASE%/bin.
4. deployanalyticsear.cmd.
5. Enter the WebLogic Domain Console password. For example, weblogic123.
6. Restart the Oracle Utilities Analytics core services.
7. Restart WebLogic and all Oracle Utilities Analytics services after the Oracle Business Intelligence Enterprise Edition deployment is completed.

Enabling the Auto Complete Feature on Oracle Business Intelligence Enterprise Edition 11.1.1.7.1

To enable auto complete feature on Oracle Business Intelligence Enterprise Edition, perform the following steps:

1. Restart the Oracle Business Intelligence Enterprise Edition admin server, managed server and opmn services.

Note: Refer to Oracle Business Intelligence Enterprise Edition documentation for the detailed instructions on how to start, stop admin server, managed server and opmn services.

2. Login to analytics (<http://<Server>:<port>/analytics>).
3. Click on the **WebLogic User** (top-most-right section of the page).
4. From the drop-down menu, select **My Account**.
5. Set **Prompt Auto Complete** to **ON**, and click **OK**.

Installing Oracle Utilities Analytics Admin Tool Component

This is only applicable for users installing Oracle Data Integrator based ELT. Oracle Utilities Analytics Admin Tool is based on Oracle Application Express.

For the detailed instructions on how to set up the Admin Tool, refer to the chapter **Installing the Oracle Utilities Analytics Admin Tool** for the complete details.

Also, refer to *Oracle Utilities Analytics Administrator's Guide* for details.

Post-installation Checklist

After the installation, perform the following steps:

1. Verify the **Install** and **Deploy** logs.
 - MDL Import Logs
<INSTALL_DIR>/OWB/MetadataFiles/SPL-BI-Project_imp.log
<INSTALL_DIR>/OWB/MetadataFiles/SPL-BI-Location_imp.log
 - OWB Deploy Logs
<INSTALL_DIR>/logs/system/log_OWBDeployment_YYYYMMDD_####.txt
 - Custom Mapviewer deploy Logs
<INSTALL_DIR>/logs/system/mapviewerdeploy.sh.log
 - WriteBack Logs
<INSTALL_DIR>/logs/system/Writeback.log
 - FileProcessorDaemon Logs
<INSTALL_DIR>/bin/FileProcessorDaemon.log
2. Log into the **Oracle Business Intelligence Enterprise Edition Analytics** link. The Dashboard displays data with no errors.

Chapter 7

Demo Installation Procedure

This chapter provides instructions for installing the demo database.

Note: The demo installation does not support ETL functionality. The **ETL Job Control** dashboard accesses the Oracle Warehouse Builder and Oracle Data Integrator tables, and the demo dump does not have Oracle Warehouse Builder or Oracle Data Integrator objects. Hence, the ETL dashboard is not supported in the demo installation.

The chapter includes the following topics:

- **Installing Oracle Utilities Analytics Demo Database Component**
- **Installing Oracle Utilities Analytics Dashboard Component**
- **Post-installation Checklist**

Installing Oracle Utilities Analytics Demo Database Component

This section describes how to install the demo component of Oracle Utilities Analytics. The section includes the following:

- **Copying and Decompressing the Install Media**
- **Creating the Database and Importing the Dump File**
- **Configuring the Security**
- **Configuring the Spatial Data**

Copying and Decompressing the Install Media

To copy and decompress the install media, follow these steps:

1. Download the Oracle Utilities Analytics V2.5.1Demo Data part (**Oracle Utilities Analytics V2.5.1Demo Data.zip**) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Create a temporary directory such as c:\OUA\temp or /OUA/temp (Referred to <TEMPDIR> below). This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation, can be deleted after completing a successful installation.
3. Unzip **Oracle Utilities Analytics V2.5.1Demo Data.zip** to <TEMPDIR>.

Creating the Database and Importing the Dump File

This section describes how to create the demo database with AL32UTF8 character set using the database creation tool (cdxdba.plx for UNIX or CDXDBA.exe for Windows), including:

- **UNIX Database Creation Utility**
- **Windows Database Creation Utility**
- **Importing Demo Data Manually**
- **Post-Import Tasks**

Note: Ensure that Oracle Database Server Enterprise Edition 11.2.0.3 or 12.1.0.1.0 is already installed on the machine in order to create the database.

Note: The UNIX and Windows database creation utilities creates an empty database with AL32UTF8 character set and at least one tablespace for storing the application objects before running the installation. The default name of the application tablespace is CISTS_01.

Note: If you get the following error messages while importing demo data, it is recommended to ignore:

```
ORA-31684: Object type USER:"MDADM" already exists
ORA-31684: Object type USER:"RELADM" already exists
ORA-31684: Object type USER:"DWADM" already exists
```

```
ORA-39083: Object type OBJECT_GRANT failed to create with error:
ORA-01917: user or role 'CCB1REP' does not exist
Failing sql is:
GRANT EXECUTE ON "MDADM"."B1_TEXT_ARRAY" TO "CCB1REP"
```

```
ORA-39083: Object type OBJECT_GRANT failed to create with error:
ORA-01917: user or role 'CCB1REP' does not exist
Failing sql is:
GRANT SELECT ON "MDADM"."B1_PROD_INSTANCE" TO "CCB1REP"
Job "SYSTEM"."SYS_IMPORT_SCHEMA_01" completed with 5 error(s)
```

UNIX Database Creation Utility

The files are located in BI251/DatabaseCreation/Unix to create the database.

1. FTP the contents of the **Database Creation** folder to a temporary directory on the UNIX server.
2. To create the database, set the ORACLE_HOME and the ORACLE_BASE variables.
3. Execute the **utility cdxdba.plx** by executing the following command:
perl cdxdba.plx
4. Provide the following parameter values when the script prompts:

Instance name (DEMO): DEMO

ORACLE_BASE: The directory where the setup files for the database will be created (/orasw/app/oracle):

ORACLE_HOME: The folder where the current version of Oracle software is installed (/orasw/app/oracle/product/):

ORACLE_DATA: The directory where the data files for the database will be created (/db05/oradata):

Character set for the database (AL32UTF8):

-
5. Enter the values based on the settings of your database server. You can also accept the default values displayed if they match your database server settings. You will be prompted to confirm the settings and select Y or N to create the database.

ORACLE_SID: DEMO

ORACLE_HOME: /orasw/app/oracle/product/

ORACLE_BASE: /orasw/app/oracle

ORACLE_DATA: /db05/oradata

Character Set: AL32UTF8

Do you want to continue (Y/N)?

6. When the database has been created, you will be prompted with the following questions:

Do you want to import a demo database dump into this database (Y/N)?

Select Y to import the Demo Install data.

For the demo installation use the dump file exp_demo.dmp.

Do you want to import a demo database dump into this database (Y/N)? Y

Enter the name of the dump file (exp_demo.dmp):

Enter the name of the dump file directory (data_pump_dir):

Enter the name of the log file (exp_demo.log):

Note: The **dump_dir** must exist in the created database before continuing with the import. You should also copy the **exp_demo.dmp** file to the **dump_dir**. Uncompress the **exp_demo.dmp.gz** file first to extract the exp_demo.dmp file. This file is in ..\BI251\Demo directory.

Update the **oratab** file for the new database, and then check the connectivity to this database from another server and from your desktop after updating local **tnsnames.ora** file.

Windows Database Creation Utility

The files are located in ..\BI251\DatabaseCreation\Windows. You should be logged in as a user who is a member of local ORA_DBA group on that server. The ORA_DBA group should have “Administrator” privileges assigned to it.

1. To create a database, run the utility **CDXDBA.exe** located in the Windows folder from command prompt. The utility displays the following options:

E - Export a schema from the database

R - Refresh a schema with a database dump

C - Create/Recreate a local database

H - See help for the command line options

Q - Quit

2. Select the option C to create an empty database on your machine and provide the below inputs:

- Provide the instance name (DEMO): <DB Name> e.g BIDE MO

- Enter the character set of the database (AL32UTF8) : AL32UTF8

- Enter ORACLE_BASE: The directory where the setup files for the database will be created (c:\oracle) : <Oracle_Base> e.g. C:\app\oracle

- Enter ORACLE_HOME: The folder where the current version of Oracle software is installed (c:\oracle\product\11.1.0.6\Db_1) :<Oracle_Home> e.g c:\app\oracle\db_home
 - Enter ORACLE_DATA: The directory where the data files for the database will be created (C:\app\oracle\oradata) :<Directory where data files will be created>
3. Once the database has been created, select the R - Refresh a schema option with a database dump file to load the demo install data.
- Select an option: R
 - Enter the instance name (DEMO): <DB name>
 - Is it a LOCAL database (exists on the same machine) (Y/N): < provide Y or N>
 - Enter the name of the Oracle account that owns that application schema (spladm): DWADM
 - Enter the password for DWADM (spladm): DWADM
 - Enter the character set of the database (AL32UTF8): AL32UTF8
 - Enter the name of data pump directory (DATA_PUMP_DIR): DATA_PUMP_DIR
 - Enter the name of the dump file (expDWADM.dmp):exp_demo.dmp
 - Enter the name of the log file (impDWADM.log):exp_demo.log

The option R causes the utility to drop all the objects from the schema and import the schema from a database dump file.

For the demo installation, use the **exp_demo.dmp** dump file.

Note: The **dump_dir** must exist in the database created above before continuing with the import. You should also copy the **exp_demo.dmp** file to the **dump_dir**. Uncompress the **exp_demo.dmp.gz** file to extract the **exp_demo.dmp** file. This file is in the ..\BI251\Demo directory.

Check the connectivity to this database from another server and from your desktop after updating the local **tnsnames.ora** file.

Importing Demo Data Manually

The demo data can also be imported by using the below command after successful database creation.

Note: Run this command from the database server:

Note: Make sure to change the tablespace_name to the tablespace name on which DWADM, RELADM and MDADM have the quota. If DWADM, RELADM and MDADM users have quota on cists_01 tablespace, then exclude whole remap_tablespace clause from the command.

1. Set the correct ORACLE_SID and ORACLE_HOME first, and then run below command to import demo dump.

```
impdp directory= dump_dir dumpfile= exp_demo.dmp logfile=
exp_demo.log schemas=DWADM,RELADM,MDADM
remap_tablespace=cists_01:<tablespace_name>
```

2. Provide the system as the user and system user's password when prompted.

Post-Import Tasks

Connect to MDADM schema, and execute the below commands:

```
create public synonym B1_TARGET_ENTITY for B1_TARGET_ENTITY;
create public synonym B1_PROD_INSTANCE for B1_PROD_INSTANCE;
create public synonym B1_JOB_CONFIG for B1_JOB_CONFIG;

grant select on B1_TARGET_ENTITY to public;
grant select on B1_PROD_INSTANCE to public;
grant select on B1_JOB_CONFIG to public;
```

Configuring the Security

For configuring the security, perform the following steps:

1. Navigate to the `..\BI251\DWADM\Security` folder.
2. Edit the file **OraGenSec.bat**, which is in the same location, and replace the parameter `database-name` with the name of your database. This file is provided for your convenience and executes the **Oragensec.exe** utility based on the parameters passed into it.

Note: Ensure to run **OraGenSec.bat** from a Windows desktop that has the Oracle 11.2.0.3+ 32 bit client installed. Your database should already be listed in the local file **tnsnames.ora**.

The script executes as the following:

```
oragensec -d DWADM,<DWADM password>,database_name -r
DW_READ,DW_USER - a A -u DWUSER,DWREAD
```

3. Execute the edited **OraGenSec.bat** file from the command prompt.

Configuring the Spatial Data

This section describes how to load spatial metadata in the `USER_SDO*` tables for Oracle Utilities Analytics.

Use the following procedure to load spatial metadata in the target database:

1. Create the **dump_dir** directory in the database and copy the **user_sdo.dmp** file from `../BI251/Spatial-Metadata` folder to that location.
2. Import the released spatial tables to the target database using the following command:

```
impdp directory=dump_dir dumpfile=user_sdo.dmp logfile=
impdp_user_sdo.log schemas=DWADM
remap_tablespace=cists_01:<tablespace_name>
```

Note: Run this command from database server.

Note: Make sure to change the `tablespace_name` to tablespace name on which DWADM has the quota. If DWADM user have quota on `cists_01` tablespace, then exclude whole `remap_tablespace` clause from command.

3. Review the **impdp_user_sdo.log** file to ensure the tables are imported successfully.
4. After importing the tables, run the following SQL scripts from the `../BI251/Spatial-Metadata` folder:
 - `sqlplus dwadm/<dwadm user password>@database-name @copy_spatial_metadata.sql`
 - `sqlplus dwadm/<dwadm user password>@database-name @clean_sdo_release_tbls.sql`
5. Review the log files.

Installing Oracle Utilities Analytics Dashboard Component

This section describes how to install the dashboard component of Oracle Utilities Analytics. The section includes the following:

- **Copying and Decompressing the Install Media**
- **Setting Permissions for the Cistab File in UNIX**
- **Oracle Utilities Analytics Demo Database Component Installation Dashboard Package Installation Steps**
- **Post-installation Tasks**

Copying and Decompressing the Install Media

The Oracle Utilities Analytics Dashboard Component installation file is delivered in the zip format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Analytics environments operated by different Oracle Utilities Administrator User IDs, you must complete each of the following installation steps for each Administrator User ID.

1. Download the **Oracle Utilities Analytics V2.5.1Dashboard Component part** (Oracle Utilities Analytics V2.5.1Dashboard Component Multiplatform.zip) from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>).
2. Log into the application server host (where Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 software is installed) as the Oracle Utilities Analytics Administrator User ID (default ceases).
3. Create a temporary directory such as `c:\OUA\temp` or `/OUA/temp` (Referred as `<TEMPDIR>` below). This directory must be located outside any current working Oracle Utilities application environment. All the files that are placed in this directory, can be deleted after a successful installation.
4. Unzip the **Oracle Utilities Analytics V2.5.1Dashboard Component Multiplatform.zip** to `<TEMPDIR>`.
5. Decompress the file **BI.OBIEE.V2.5.1-MultiPlatform.jar**:
 - `cd <TEMPDIR>`
 - `jar -xvf BI.OBIEE.V2.5.1-MultiPlatform.jar`

You should have Java JDK installed on the machine used to `(un)jar` the Oracle Utilities Analytics dashboard component installation package. Install the JDK that is supported for the install on your platform to be able to use the `jar` command.

The Java packages are located at: <http://java.sun.com/products/archive/index.html>.

A sub-directory named “BI.OBIEE.V2.5.1” is created. It contains the installation software for the Oracle Utilities Analytics Dashboard component.

Setting Permissions for the Cistab File in UNIX

Every Oracle Utilities Analytics environment installed on a server must be registered in the `/etc/cistab` file located on that server. On UNIX servers, generally only the root user ID has the write permissions to the `/etc` directory. Since the installation process is run by the Oracle administrator User ID, this user ID may not be able to write to `/etc/cistab` table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the `<TEMPDIR>/BI.OBIEE.V2.5.1` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is

the first Oracle Utilities Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Analytics administrator User ID so that the next time a new environment is created by the same Oracle Utilities Analytics Administrator User ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment, take a backup prior to the installation process. The installation utility does not create a backup of the existing environment.

Oracle Utilities Analytics Demo Database Component Installation Dashboard Package Installation Steps

Before you install verify that the steps mentioned in **Prerequisite Software for Oracle Utilities Analytics Dashboard Component** are followed.

To install the Oracle Utilities Analytics Dashboard package, perform these steps.

1. Change the current directory to **<TEMPDIR>/BI.OBIEE.V2.5.1**.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl. It is required to run the installer.

3. Execute the following script:

For UNIX:

Perform the following steps:

- export ORACLE_CLIENT_HOME=<oracle_client_home>
- export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
- export PATH=\$PATH:\$PERL_HOME/bin
- Run ksh ./install.sh

For Windows:

Perform the following steps:

- set ORACLE_CLIENT_HOME=<ORACLE_HOME>
- set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
- set PATH=%PERL_HOME%\bin;%PATH%
- Run Install.cmd

Note: On UNIX, ensure that you have the proper execute permission on install.sh.

4. The Oracle Utilities Analytics specific menu appears.
5. Select each **Menu Item** to configure the values. For the detailed description of the values, see the **Configuration Worksheet for Dashboard Component Installation**.

Environment Installation Options

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

Configure each item in the above list for successful installation. Choose any option from the menu item (1, 2 <P> Process, <X> Exit).

Note: For the detailed description of these values, see **Configuration Worksheet for Dashboard Component Installation**.

Note: All the schema names must be entered in the upper case.

Environment Configuration

1. Environment Description
Environment Description:
2. OBIEE Environment Configuration
Oracle BI Instance Home:
Oracle BI Home:
Oracle BI Domain Home:
Weblogic Domain Console User Name:
Weblogic Domain Console Host:
Weblogic Domain Console Port Number
3. Target Database Details
Target Database Name:
Target Database Host:
Target Database Port: 1521
DWADM Schema Name: DWADM
DWADM Schema Password:

Configure each item in the above list for a successful installation. Choose any option from the menu item (1, 2, 3 <P> Process, <X> Exit).

When you are finished with the parameter setup, proceed with option **P**. Write to the **Configure** file.

Once installation is successful, execute the post-installation steps as described in the section **Post-installation Tasks**.

Post-installation Tasks

Following topics are discussed in this section:

- **Deploying the Repository (RPD) File**
- **Deploying the Web Catalog**
- **Configuring and Deploying the MapViewer**
- **Deploying the Write Back**
- **Enabling the Analytics Help**
- **Enabling the Auto Complete feature on Oracle Business Intelligence Enterprise Edition 11.1.7.1**

Deploying the Repository (RPD) File

The RPD file is located at: <install_dir>/Reports/rpd/UtilitiesBusinessAnalytics.rpd, where <install_dir> is the Oracle Utilities Analytics Dashboard Package installation directory.

This RPD file should be copied to the Windows machine on which Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 is installed.

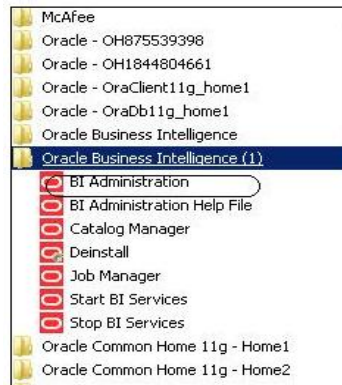
To deploy the RPD file, perform these steps:

1. Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 should have been installed on the Windows machine before proceeding with the steps below.

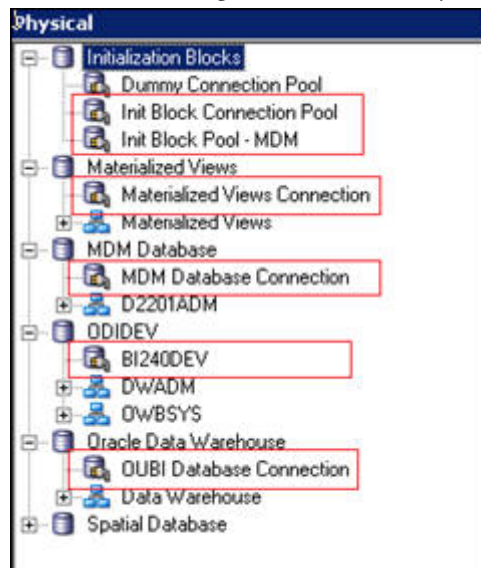
2. Launch the Administration Tool from the **Start** menu from the Windows machine. This is only available in the Windows.

Start > Programs > Oracle Business Intelligence > BI Administration.

3. Open the RPD in the offline mode by selecting **File > Open > Offline...**
4. Provide the RPD password. The default password is “oracle123”.



5. Edit the connection pools shown below by double-clicking on them.



6. In the **Init Block Connection Pool** group, enter the following:

Datasource name = BI Database name

User name = DWREAD

Password = DWREAD User password

7. In the **Init Block Pool - MDM** group, provide the following (only for MDM):

Datasource name = MDM database name

User name = CISUSER

Password = CISUSER User password

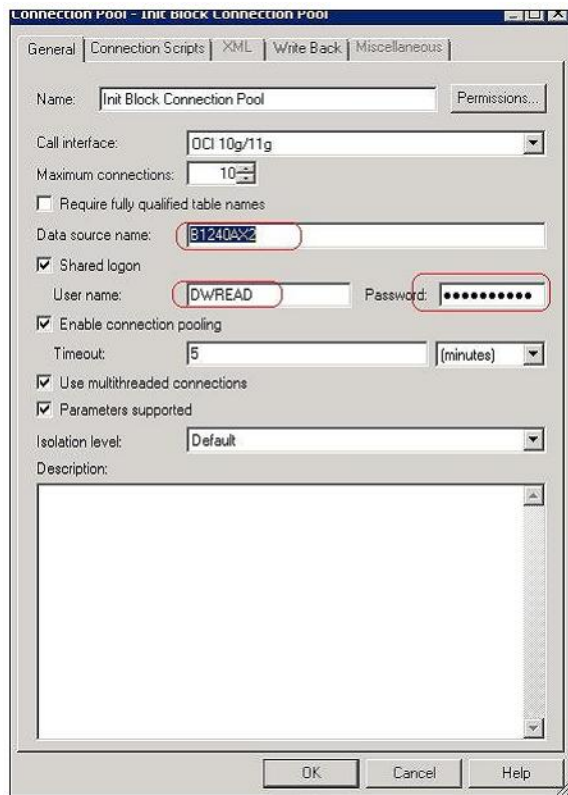
8. In the **MDM Database Connection** group, provide the following (only for MDM):

Datasource name = MDM database name

User name = CISUSER

Password = CISUSER User password

9. In the **Materialized Views Connection** group, enter the following:
 Datasource name = BI Database name
 User name =DWREAD
 Password = DWREAD User password
10. In the **ODIDEV Connection Pool** group, provide the following:
 Datasource name = BI database name
 User name = DWUSER
 Password = DWUSER User password
11. In the **OUBI Database Connection** group, provide the following:
 Datasource name = BI database name
 User name = DWREAD
 Password = DWREAD User password



12. Click **Save**.

Note: Click **Yes** when you see the prompt '*Do you wish to check global consistency?*' and ignore any warnings that appear after consistency check is complete.

13. Log into the **OBIEE Enterprise Manager** console.
14. Navigate to **BI Instance >Coreapplication>Deployment**.
15. Lock and edit.
 The repository text box is enabled.
16. Browse to the modified rpd file and submit.
17. Provide the RPD password “oracle123”. Click **Apply**.

-
18. Activate the changes, and then restart the Oracle Utilities Analytics services.

Note: All the above-mentioned database sets in the connection pool should be updated in the **tnsnames.ora** file in <OBIEE_INSTALL_DIR>/Oracle_BI1/network/admin.

Deploying the Web Catalog

To deploy the catalogs, follow these steps:

1. Go to <Catalog location>/root/shared and delete the existing catalogs that were delivered out-of-box with the Oracle Utilities Analytics product in the previous release. Any catalog added by you can be retained.
2. Go to <Catalog location>/root/system, and remove spatialmetadata directory and spatialmetadata.atr file.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

For UNIX:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.sh -e <envname>` command.
3. `cd $SPLEBASE/bin.`
4. `ksh ./deploycatalog.sh.`
5. Enter the physical catalogs location configured in the Enterprise Manager.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see catalog location.

For Windows:

Perform the following steps:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
3. `cd %SPLEBASE%\bin.`
4. `deploycatalog.cmd.`
5. Enter the physical catalogs location configured in the Enterprise Manager.

Note: Login to the Enterprise Manager, navigate to **Coreapplication > Deployment > Repository** for viewing the catalog location. At the bottom, you will see the catalog location.

Configuring and Deploying the MapViewer

Configuring and deploying the MapViewer involves the following:

- **Configuring the MapViewer**
- **Modifying the instanceconfig.xml**

Configuring the MapViewer

To configure and deploy the MapViewer, perform the following steps:

1. Update the **mapViewerConfig** file with below-mentioned tags:

File location: <OBIEE_INSTALL_DIR>/Oracle_BI1/bifoundation/jee/mapviewer.ear/web.war/WEB-INF/conf/

File: mapViewConfig.xml

If there is proxy used, insert the list of host names for all the third-party service providers in the security_config node.

```
<proxy_enabled_hosts>
  elocation.oracle.com,maps.weatherbug.com,direct.weatherbug.com,api
  .wxbug.net,de.tiles.weatherbug.com
</proxy_enabled_hosts>
```

2. Add the following **ns_data_provider** node:

```
<ns_data_provider id="obieeNsdp"
  class="com.oracle.utilities.birdseye.BirdseyeNSDP" />
```

3. Add the current **map_tile_server** with the following **map_tile_server** node:

```
<map_tile_server>
  <tile_storage default_root_path="/mytilecache/" />
</map_tile_server>
```

4. Add the below content with the appropriate values:

```
<map_data_source name="MAPCONN" jdbc_host="<DB_HOST>"
  jdbc_sid="<SID of the Database>" jdbc_port="<DB_PORT>"
  jdbc_user="DWADM"
  jdbc_password="!<DWADM PASSWORD>" jdbc_mode="thin"
  number_of_mappers="32" allow_jdbc_theme_based_foi="true"
 />
```

Note: The exclamatory mark in the front of the password ensures that the password is encrypted.

Modifying the instanceconfig.xml

Update the **instanceconfig.xml** file after taking a backup.

The following are the examples of location of **instanceconfig.xml** file.

For UNIX:

```
<OBIEE_INSTALL_DIR>/instances/instance1/config/
OracleBIPresentationServicesComponent/coreapplication_obips1
```

For Windows:

```
<OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentation
ServicesComponent\coreapplication_obips1
```

Perform the following changes to **instanceconfig.xml** file:

1. Update the security node with the following values. If the security node is not present, add the following code before </Serverinstance>:

```
<Security>
  <ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
  <HttpOnlyCookies>>false</HttpOnlyCookies>
  <CookieDomain />
  <CookiePath></CookiePath>
</Security>
```

2. Update the following <ServerInstance> element:

```
<LightWriteback>>true</LightWriteback>
```

3. Add the following before the end tag </ServerInstance>:

```
<UI>  
<DefaultStyle>oubi</DefaultStyle>  
<DefaultSkin>oubi</DefaultSkin>  
</UI>
```

4. Add the following lines in between the <ServerInstance> </ServerInstance> tags:

```
<Prompts>  
<MaxDropDownValues>256</MaxDropDownValues>  
<AutoApplyDashboardPromptValues>true</  
AutoApplyDashboardPromptValues>  
<AutoSearchPromptDialogBox>true</AutoSearchPromptDialogBox>  
<AutoCompletePromptDropDowns>  
<SupportAutoComplete>true</SupportAutoComplete>  
<CaseInsensitive>true</CaseInsensitive>  
<MatchingLevel>MatchAll</MatchingLevel>  
<ResultsLimit>50</ResultsLimit>  
</AutoCompletePromptDropDowns>  
</Prompts>
```

Deploying the Write Back

To deploy Write Back, perform the following:

For UNIX:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.sh -c <envname> command.
3. cd \$SPLEBASE/bin.
4. ksh ./deploywriteback.sh.
5. Login to Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database**.
6. Click **Denied:Authenticated User** and select the permission **Granted**.

For Windows:

1. Navigate to <Install_Dir>/bin directory.
2. Initialize the environment with the ./splenviron.cmd -c <envname> command.
3. cd %SPLEBASE%/bin.
4. deploywriteback.cmd.
5. Login to Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database**.
6. Click **Denied:Authenticated User** and select the permission **Granted**.

Enabling the Analytics Help

To enable the Analytics' help, follow these steps:

1. Download *Oracle Utilities Analytics v2.5.1 User's Guide* from the Oracle Software Delivery Cloud ([https:// edelivery.oracle.com](https://edelivery.oracle.com)).
2. After downloading *Oracle Utilities Analytics v2.5.1 User's Guide*, change the name of the OUA_UserGuide_2.5.1.pdf file to **OUASA Help.pdf**.
Now, place the **Help** file in <install_dir>/Skin/res, where <install_dir> is the **Oracle Utilities Analytics Dashboard Package** installation directory.

-
3. Run the following commands:

For UNIX:

- `cd $SPLEBASE/bin.`
- `ksh ./deployanalyticsear.sh.`
- Enter the WebLogic Domain Console Password. For example, `weblogic123.`

For Windows:

- `cd %SPLEBASE%/bin.`
- `deployanalyticsear.cmd.`
- Enter the WebLogic Domain Console Password. For example, `weblogic123.`

4. Restart the Oracle Utilities Analytics core services.
5. Restart WebLogic and all Oracle Utilities Analytics services after the Oracle Business Intelligence Enterprise Edition deployment is completed.

Enabling the Auto Complete feature on Oracle Business Intelligence Enterprise Edition 11.1.7.1

Perform the following steps:

1. Restart the Oracle Business Intelligence Enterprise Edition admin server, managed server and opmn services.

Note: Refer to Oracle Business Intelligence Enterprise Edition documentation for the detailed instructions on how to start, stop the admin server, managed server and opmn services.

2. Log into the Analytics: `http://<Server>:<port>/analytics.`
3. Click on the WebLogic User (top-right pane of page).
4. From the drop-down menu, select **My Account**.
5. Set the prompt **Auto Complete** to **ON**. and click **OK**.

Post-installation Checklist

After the installation, perform the following:

1. Verify the install and deploy logs.
 - Custom Mapviewer deploy logs:
`<INSTALL_DIR>/logs/system/mapviewerdeploy.sh.log`
 - WriteBack logs:
`<INSTALL_DIR>/logs/system/Writeback.log`
2. Log into the **Oracle Business Intelligence Enterprise Edition Analytics** link that is pointing to the demo database. The dashboard displays the data with no errors.

Chapter 8

Configuring Your Applications

This chapter provides instructions for configuring additional applications for use with Oracle Utilities Analytics. It covers the following topics:

- **Spatial Configuration**
- **Oracle Business Intelligence Enterprise Edition (OBIEE) Configuration**

Spatial Configuration

This section contains information related to configuring Oracle Utilities Outage Analytics and how to set up the spatial data and its corresponding metadata. The mapping between the spatial columns and the dimensional columns, such as the State from the Address dimension is defined in the map metadata, which is available as a part of the WebCatalog. Using the spatial data and the map metadata, users can view the transactional data on the map view.

As an example, steps to setup the data for United States (US) are mentioned below:

- **Installing US State Spatial Data**
- **Installing US City Spatial Data**
- **Installing US Zip Code Spatial Data**
- **Installing US County Spatial Data**
- **Configuring Oracle Utilities Network Management System Device Spatial Data**
- **Loading the Spatial Metadata**
- **Improving Performance by Prefetching the Map Tiles**

Installing US State Spatial Data

The spatial data can be loaded from the various sources. One of the approaches is to use the world sample data given by NAVTEQ. There is a pointer to the dataset from the Oracle Utilities Analytic's OTN (Oracle Technology Network) page for downloading the partner data:

<http://www.oracle.com/technetwork/database-options/spatialandgraph/downloads/index.html>

There are various versions of the world sample dataset. These instructions assume that you are using the version with a world_sample2010.dmp file. If you have a different version, then these instructions may not work and you should refer to the **README.txt** included in the downloaded world_sample.zip file.

These instructions also assume that the sample data will be loaded into the DWADM schema, used for the data warehouse. If you want to follow the instructions in the world sample

ReadMe.txt file instead, then the data will be loaded into a `WORLD_SAMPLE` account and the steps will need to be changed to use that account instead of `DWADM`.

Use the following procedure to install the world sample data.

1. Create a work directory on your machine for the data and change directory to the new directory. For example:

```
mkdir NAVTEQ
cd NAVTEQ
```

2. Unzip the **world_sample.zip** file you downloaded to the new directory. For example:

```
unzip world_sample.zip
```

3. Connect to `SQLPLUS` using the `DWADM`, and remove the old tables (if present). For example:

```
sqlplus dwadm/dwadm@database @c1n_sample_data.sql
```

4. Import the world sample dump file into the `DWADM` schema. For example:

```
imp dwadm/dwadm@database file=world_sample2010.dmp
log=world_sample.log full=y
```

5. After importing the world sample dump file, create the **MapViewer Spatial** metadata using the following *Insert* statements:

```
sqlplus dwadm/dwadm@database
INSERT INTO user_sdo_maps SELECT * FROM sdo_maps;
INSERT INTO user_sdo_themes SELECT * FROM sdo_themes;
INSERT INTO user_sdo_styles SELECT * FROM sdo_styles;
INSERT INTO user_sdo_cached_maps SELECT * FROM sdo_cached_maps;
```

6. Create the States Spatial table by following the steps mentioned below. This assumes that the eLocation website is being used as the base map, for which the `SRID` (Spatial Reference System Identifier) is 54004. The `SRID` is a unique value used to identify the coordinate system used in a Geographic Information System (GIS) application. If some other base map is used, then the transform parameter specifies the `SRID` of the base map being used.

```
sqlplus dwadm/dwadm@database
create table q1_states54004 (
    feature_id number,
    feature_name varchar2(255),
    area_id number,
    name_langcode varchar2(35),
    feature_type varchar2(30),
    country_code_3 varchar2(5),
    geometry SDO_GEOMETRY,
    carto_id number(10,0));
```

The table name should be 'q1_states54004' irrespective of the coordinate system that is used, since the default themes in Oracle Utilities Analytics are based on this table. If you need to change the default theme, create a new theme with the new table as the base, and then use it for the maps.

7. Insert the state data into the newly created States table. Below is an example of insert statement to load USA state information to the States table assuming that the `SRID` is 54004.

```
insert into q1_states54004
select null, name, null, lang_code, feature_type,
       ISO_COUNTRY_CODE, sdo_cs.transform(geometry, 54004),
       carto_id
FROM wom_area
WHERE feature_type = 909996
      and iso_country_code = 'USA';
```

-
- Update the spatial metadata view to reflect the dimensional information for the areas. The parameters for the insert statement are table name, geometry column name, and X and Y boundaries (the latitude and the longitude) based on the data and the tolerance value. Here is an example:

```
INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_STATES54004', 'GEOMETRY',
MDSYS.SDO_DIM_ARRAY (MDSYS.SDO_DIM_ELEMENT ('X', -
20500000, 20500000, 0.0005), MDSYS.SDO_DIM_ELEMENT ('Y', -
50000000, 19000000, 0.0005)), 54004);
```

- Create an index on the geometry column of the table.

```
create index q1_STATES54004_sdx
on q1_STATES54004 (geometry)
indextype is mdsys.spatial_index;
```

Installing US City Spatial Data

US City shape data is available in the world sample dataset, however, only the three hundred largest cities are available there. To find additional sample data for each US State from the US Census Bureau, visit and search within the **Census** site:

<http://www.census.gov/>

The following steps can be used to load the sample data for the state of Ohio, and similar steps can be followed to load city data for other US states.

- Click the **Ohio** zip code in the **Shapefile** format and download the **zt39_d00_shp.zip** file to the **NAVTEQ** directory created in the previous procedure.
- Unzip or decompress the **pl39_d00_shp.zip** file to the **NAVTEQ** directory.
- Download standalone MapBuilder from this location:
<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index-100641.html>
- Start **MapBuilder**. This is installed when MapViewer is installed. On windows it can be started by running:

```
java -jar mapbuilder.jar
```

Refer to the MapViewer documentation for instructions on installing and running MapBuilder from this location:

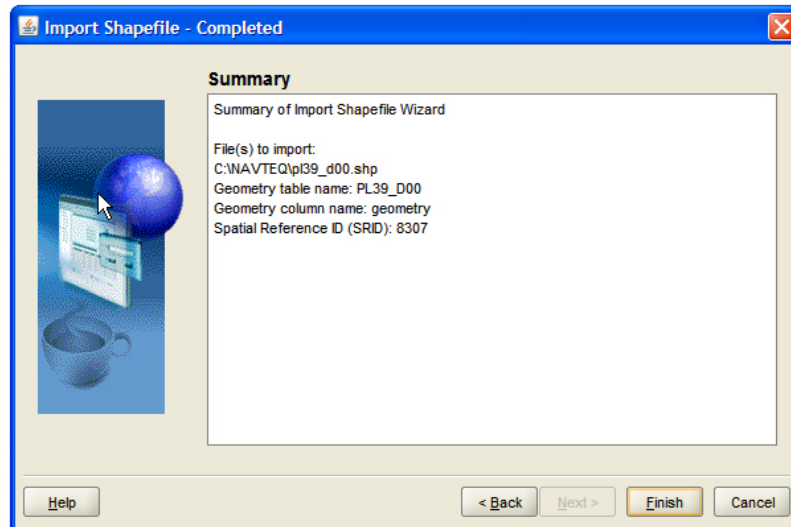
<http://www.oracle.com/technetwork/middleware/mapviewer/documentation/index.html>

- If a connection is not created, then select **File -> New Connection**, and create a connection to the DWADM schema in the Oracle Utilities Analytics Data Warehouse database.
- Select **Tools -> Import Shapefile**, and click **Next**.
- Click **Shapefile**.
- Browse to the **C:\NAVTEQ** directory, select the **pl39_d00_shp.shp** file, and click **Open**.
- Click **Next**.

Note: Ensure that the name of the geometry table is set to pl39_d00. If this is not the desired name for the spatial table, then the select statement below will need to be changed to use the entered name.

- Ensure the **Create Predefined Theme** box is unchecked, and click **Next**.

- Review the summary information and click **Finish**.



- Create the **Q1_CITY54004** table to store all the required information related to cities using the following SQL statement. This assumes that the eLocation website is being used as the base map, for which the SRID is 54004. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used. However, the table name should remain the same as mentioned below.

```
sqlplus dwadm/dwadm@database
create table Q1_CITY54004 as
select upper(name) FEATURE_NAME,
       sdo_cs.transform(geometry, 54004) geometry,
       'OHIO' state
From pl39_d00
Where lsad_trans in ( 'city', 'village' );

INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_CITY54004', 'GEOMETRY',
MDSYS.SDO_DIM_ARRAY (MDSYS.SDO_DIM_ELEMENT ('X', -
20500000, 20500000, 0.0005), MDSYS.SDO_DIM_ELEMENT ('X', -
50000000, 19000000, 0.0005)), 54004);

create index Q1_CITY54004_sdx
on Q1_CITY54004 (geometry)
indextype is mdsys.spatial_index;

UPDATE q1_city54004
SET geometry = SDO_UTIL.RECTIFY_GEOMETRY(geometry, .05);
```

Note: This fixes any problems with the input geometry and returns a valid geometry.

Installing US Zip Code Spatial Data

Sample shape files for US Zip Code Areas can be found at the following location:

<http://www.census.gov/>

The following steps can be used to load the sample data for the state of Ohio, and similar steps can be followed to load zip code data for other US states.

- Click the **Ohio Zip Code** in **Shapefile** format and download the **zt39_d00_shp.zip** file to the **NAVTEQ** directory created in the previous procedure.

2. Unzip the **zt39_d00_shp.zip** file to the **NAVTEQ** directory.
3. Start the MapBuilder. This is installed when MapViewer is installed.
Refer to the MapViewer documentation for instructions on installing and running MapBuilder.
4. If a connection is not created, then select **File > New Connection**, and create a connection to the DWADM schema in the Oracle Utilities Analytics Data Warehouse database.
5. Point **Tools > Import Shapefile**, and click **Next**.
6. Click **Shapefile**.
7. Navigate to the **C:\NAVTEQ** directory, select the **zt39_d00.shp** file, and click **Open**.
8. Click **Next**.

Note: Ensure the name of the geometry table is set to **ZT39_D00**. If this is not the desired name for the spatial table, then the **Select** statement below will need to be changed to use the entered name.

9. Ensure the **Create Predefined Theme** box is unchecked, and click **Next**.
10. Review the summary information and click **Finish**.
11. Create the **Q1_USZIP54004** table for all the required postal codes using the following SQL statement. This assumes that the eLocation website is being used as the base map, for which the SRID is 54004. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used. However, the table name should remain the same as mentioned below.

```
sqlplus dwadm/dwadm@database

create table q1_USZIP54004 as

select zcta ZCTA5CE,
       sdo_cs.transform(geometry, 54004) geom
From ZT39_D00;

INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_USZIP54004','GEOM',
MDSYS.SDO_DIM_ARRAY(MDSYS.SDO_DIM_ELEMENT('X',-
20500000,20500000,0.0005),MDSYS.SDO_DIM_ELEMENT('X',-
50000000,19000000,0.0005)), 54004);

create index q1_USZIP54004_sdx
on q1_USZIP54004 (geom)
indextype is mdsys.spatial_index;
UPDATE q1_uszip54004
SET geom = SDO_UTIL.RECTIFY_GEOMETRY(geom, .05);
```

Installing US County Spatial Data

Sample shape files for US Counties can be found at the following location:

<http://www.census.gov/>

The following steps can be used to load the sample data for the state of Ohio, and similar steps can be followed to load county data for other US states.

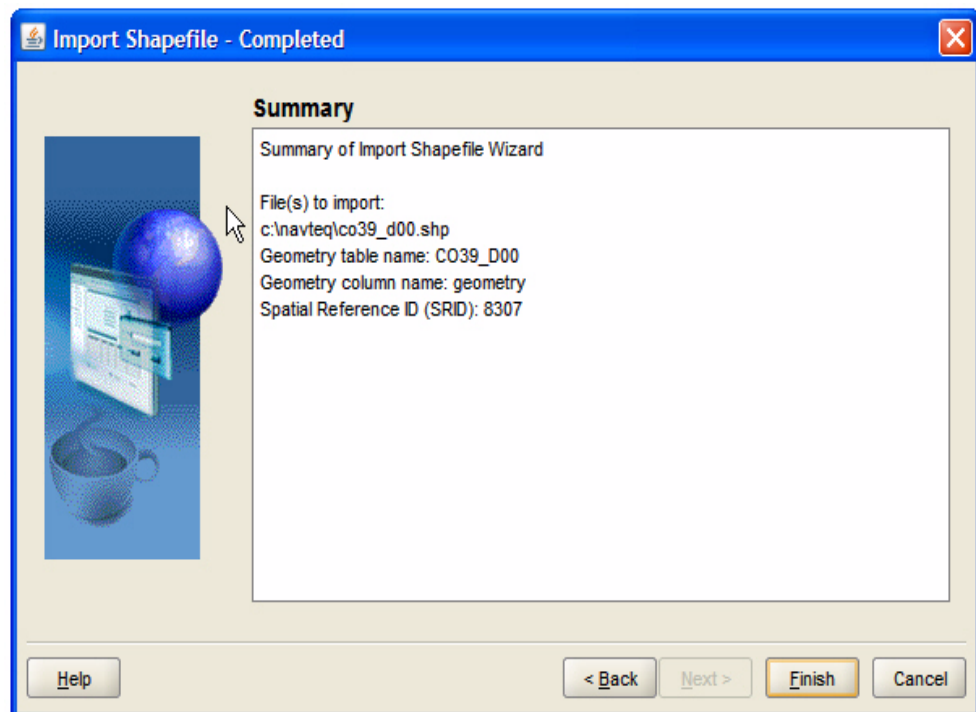
1. Click on the **Ohio County** in the **Shapefile** format and download the **co39_d00_shp.zip** file to the **NAVTEQ** directory created in the previous procedure.
2. Unzip the **co39_d00_shp.zip** file to the NAVTEQ directory.
3. Start the **MapBuilder**. This is installed when MapViewer is installed.

Note: Refer to *MapViewer* documentation for instructions on installing and running MapBuilder.

4. If a connection is not created, then select **File > New Connection**, and create a connection to the DWADM schema in the Oracle Utilities Analytics Data Warehouse database.
5. Select **Tools > Import Shapefile**, and click **Next**.
6. Click **Shapefile**.
7. Browse to the **C:\NAVTEQ** directory, select the **co39_d00_shp.shp** file, and click **Open**.
8. Click **Next**.

Note: Ensure the name of the geometry table is set to CO39_D00. If this is not the desired name for the spatial table, then the select statement below will need to be changed to use the entered name.

9. Ensure the **Create Predefined Theme** box is unchecked, and click **Next**.
10. Review the summary information, and click **Finish**.



11. Create the **Q1_COUNTY54004** table using the following SQL statement. This assumes that the eLocation website is being used as the base map, for which the SRID is 54004. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used. However, the table name should remain the same as mentioned below.

```
sqlplus dwadm/dwadm@database

create table q1_COUNTY54004 as
select name FEATURE_NAME,
       sdo_cs.transform(geometry, 54004) geometry,
       'OHIO' state
From CO39_D00;

INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_COUNTY54004', 'GEOMETRY',
MDSYS.SDO_DIM_ARRAY(MDSYS.SDO_DIM_ELEMENT('X', -
20500000, 20500000, 0.0005), MDSYS.SDO_DIM_ELEMENT('X', -
50000000, 19000000, 0.0005)), 54004);
```



```

create index q1_COUNTY54004_sdx
on q1_county54004 (geometry)
indextype is mdsys.spatial_index;

UPDATE q1_county54004
SET geometry = SDO_UTIL.RECTIFY_GEOMETRY(geometry, .05);

```

Note: No predefined reports make use of the county data, so if county spatial reports are desired, the **Q1_COUNTY_54004** theme will need to be used in new requests and maps.

Configuring Oracle Utilities Network Management System Device Spatial Data

To implement the Oracle Utilities Network Management System Network Model on the spatial analytics, Oracle Utilities Analytics reports need Oracle Utilities Network Management System geometry data. The steps from this section are required to view data in the spatial reports of Oracle Utilities Outage Analytics. There are several ways that the geometry data in the **DIAGRAM_OBJECTS NMS** device table can be accessed by the Oracle Utilities Analytics mapping reports.

This section describes the following methods:

- **Replicating the DIAGRAM_OBJECTS Table**
- **Accessing the Oracle Utilities Network Management System Spatial Data Using a Database Link**

Replicating the DIAGRAM_OBJECTS Table

The easiest option is to replicate the DIAGRAM_OBJECTS table into the Oracle Utilities Analytics database. However, a suitable mechanism needs to be built to refresh this table with the latest data from Oracle Utilities Network Management System whenever there are changes in the model.

If this is done, then after replicating the DIAGRAM_OBJECTS table, the following steps will setup the Oracle Utilities Analytics dashboards to use the data in this replicated table.

1. Create the required spatial metadata:

```

INSERT INTO user_sdo_geom_metadata
VALUES ( 'DIAGRAM_OBJECTS', 'LL_GEOMETRY',
        MDSYS.SDO_DIM_ARRAY (
            SDO_DIM_ELEMENT('X', -20037508, 20037508, .05),
            SDO_DIM_ELEMENT('Y', -45884542, 45884542, .05)
        ), 54004);

```

2. Ensure that the spatial index is created on the **LL_GEOMETRY** column. The **LL_GEOMETRY** column by default stores spatial data using SRID 54004, so this will work without changes with the eLocation base map:

```

create index q1_DIAGRAM_OBJECTS_sdx
on diagram_objects (ll_geometry)
indextype is mdsys.spatial_index;

```

Once **DIAGRAM_OBJECTS** table is replicated to the Oracle Utilities Analytics database, follow the below steps to create **Q1_DIAGRAM_OBJECTS_54004** table:

1. Connect to the DWADM schema of Oracle Utilities Analytics database and execute "create table Q1_DIAGRAM_OBJECTS_54004 as select * from DIAGRAM_OBJECTS;"
2. INSERT INTO user_sdo_geom_metadata
VALUES ('Q1_DIAGRAM_OBJECTS_54004','LL_GEOMETRY',

```
MDSYS.SDO_DIM_ARRAY(SDO_DIM_ELEMENT('X', -20037508, 20037508,
.05),SDO_DIM_ELEMENT('Y', -45884542, 45884542, .05)), 54004);
```

3. Create index `q1_DIAGRAM_OBJECTS_sdx_54004` on `Q1_DIAGRAM_OBJECTS_54004` (ll_geometry) indextype is `mdsys.spatial_index`;

Accessing the Oracle Utilities Network Management System Spatial Data Using a Database Link

If it is not possible to replicate the `DIAGRAM_OBJECTS` table, and no existing Oracle Utilities Network Management System geometry theme can be used, then it is possible to access the `DIAGRAM_OBJECTS` table in the Oracle Utilities Analytics database using a database link.

To access the `DIAGRAM_OBJECTS` table in the Oracle Utilities Analytics database using a database link:

1. Create a database link in the Oracle Utilities Analytics database pointing to the Oracle Utilities Network Management System database.
2. Create a synonym `DIAGRAM_OBJECTS` for the `DIAGRAM_OBJECTS` table in the Oracle Utilities Network Management System database.
3. Update the `mapViewerConfig.xml` to add another datasource, pointing to the Oracle Utilities Network Management System database, just like the Oracle Utilities Analytics datasource was added earlier in the install documentation.
4. Restart **WebLogic** to make the Oracle Utilities Network Management System database available.
5. Create the required spatial metadata in the Oracle Utilities Analytics database:

```
INSERT INTO user_sdo_geom_metadata
VALUES ( 'DIAGRAM_OBJECTS', 'LL_GEOMETRY',
        MDSYS.SDO_DIM_ARRAY (
            MDSYS.SDO_DIM_ELEMENT ('LONGITUDE', -180, 180, 0.05),
            MDSYS.SDO_DIM_ELEMENT ('LATITUDE', -90, 90, 0.05)
        ), 54004);
```

Loading the Spatial Metadata

This section describes how to load spatial metadata in `USER_SDO*` tables for Oracle Utilities Advanced Spatial Operational Analytics.

Use the following procedure to load spatial metadata in the target database.

1. Create the `dump_dir` directory in database and copy the `user_sdo.dmp` file from `../BI251/Spatial-Metadata` folder to that location.
2. Import released spatial tables to the target database using following command:

```
impdp directory=dump_dir dumpfile=user_sdo.dmp logfile=
impdp_user_sdo.log schemas=DWADM
remap_tablespace=cists_01:<tablespace_name>
```

Note: Run this command from database server:

Note: Make sure to change the `tablespace_name` to the tablespace name on which `DWADM` has the quota. If the `DWADM` tablespace has quota on `cists_01` tablespace, then exclude whole `remap_tablespace` clause from the command.

3. Review the `impdp_user_sdo.log` file to ensure the tables are imported successfully.
4. After importing the tables, run following SQL scripts from the `../BI251/Spatial-Metadata` folder:

```
- sqlplus dwadm/<dwadm user password>@database-name
@copy_spatial_metadata.sql
- sqlplus dwadm/<dwadm user password>@database-name
@clean_sdo_release_tbls.sql
```

5. Review the log files.

Flushing the Map Cache

If there are any changes to the themes, styles or base maps, you must flush the map cache for the changes to reflect by following these steps:

1. In the **MapView** Console, click **Admin** in the top-right corner of the page and log into the **Admin Console** page.
2. Click **Management**, select **Manage MapViewer**, and then select **Datasources**.
3. Click **Purge cached** metadata.
4. Delete the 'cacheduserinfo' files in the following path to remove any cache:

```
<OBIEE_INSTALL_DIR>\instances\instance2\bifoundation\OracleBIPresentationServicesComponent\coreapplication_obips1\catalog\SampleAppLite\root\users\weblogic2\_prefs
```

5. To verify the map changes, go to the map zone that references the modified base map.

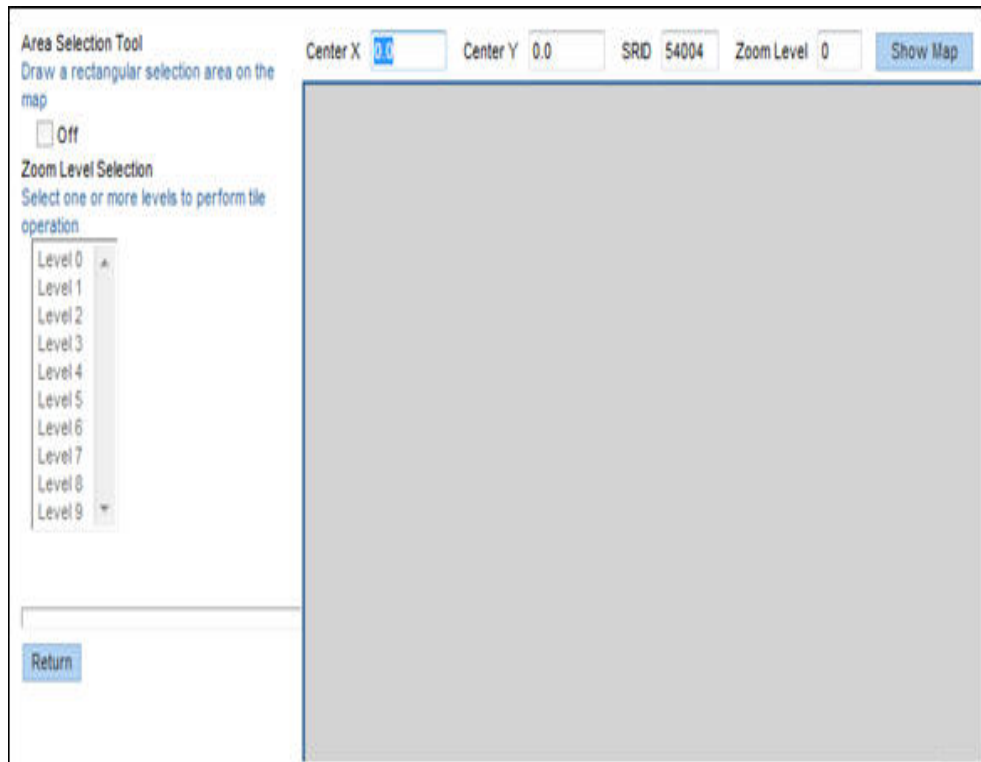
Improving Performance by Prefetching the Map Tiles

Rendering map tiles dynamically can affect system performance. To avoid this, you may consider prefetching tiles by issuing an admin request to MapViewer on a non-production server or when the server is not under load. When MapViewer receives a prefetching request, it issues many concurrent map tile requests to itself, which are basically XML map requests, and stores them in the cache. This improves the system's performance as the images are readily available.

Follow the following procedure to prefetch map tiles. These instructions are for MapViewer 11.1.1.7.1 version. If you are using a different version, refer to the MapViewer documentation for instructions.

1. In the **MapView** console, click **Admin** in the top-right corner of the page and log into the **Admin Console** page.
2. In the **Admin Console** page, click **Management > Manage Map Tile Layers**.
3. Select the required online map tile and click **View map/Manage Tiles**.

The **Prefetching** wizard opens:



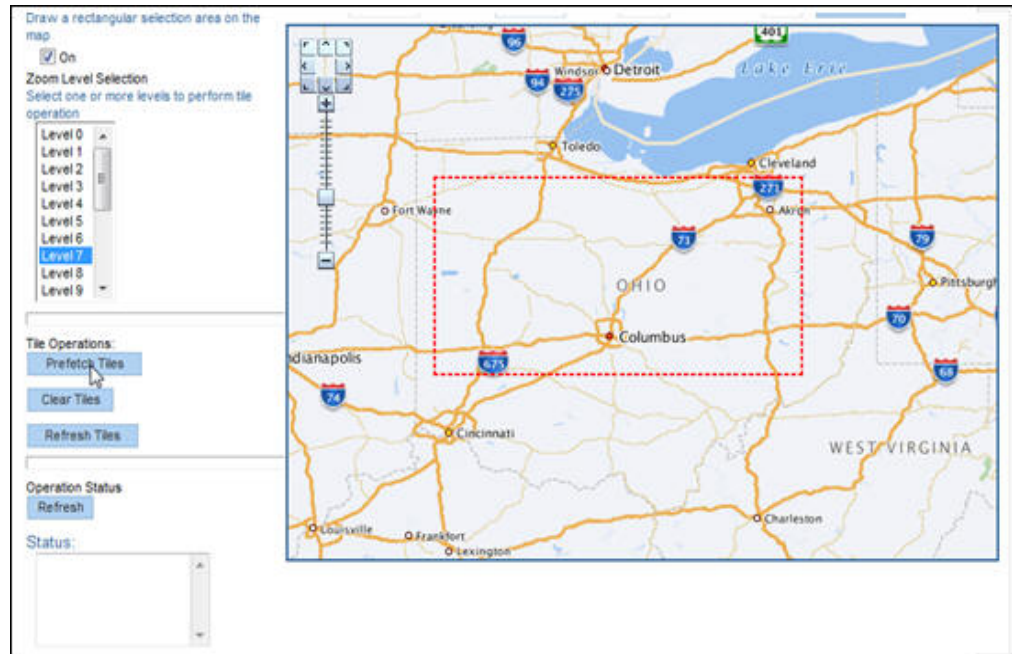
4. Enter the X, Y coordinates of the center of the map, the SRID and zoom level, and click **Show Map**.

To prefetch map images, enter the latitude and longitude values. You need to know the latitude and longitude values of the center of the location in interest. The SRID is a unique value used to identify the coordinate system used in a GIS application.

The X and Y axis used in the following example is for Ohio:



5. When you see the map, turn on the **Area Selection** tool and select the area on the map for which you want to prefetch the tiles.
6. Select one or more zoom-levels for which you want to prefetch the tiles.
7. Under **Tile Operations**, click on **Prefetch Tiles**. Here is a snapshot of the area selection and the tile operation.



This process will take some time, depending upon the hardware configuration of the system and the amount of data to be prefetched. To check the current status of the operation, click **Refresh** under the **Operation Status**. The status will change to “Finished” when the operation is done.

Oracle Business Intelligence Enterprise Edition (OBIEE) Configuration

This section contains information about configuring Oracle Business Intelligence Enterprise Edition (OBIEE) for use with Oracle Utilities Analytics. The following topics are discussed:

- **Setting Up and Configuring the User Security**
- **Managing Content in the Presentation Catalog**

Setting Up and Configuring the User Security

Note: Refer to the Oracle Business Intelligence Enterprise Edition (OBIEE) documentation for details on configuring user security.

Managing Content in the Presentation Catalog

Oracle Utilities Analytics v2.5.1 Presentation Catalog has a different folder for each of the analytics.

The following folders are available on the Shared Folders:

- About
- Administration
- Common
- Credit & Collections Analytics
- Customer analytics
- Distribution Analytics

-
- Meter Data Analytics
 - Mobile Workforce Analytics
 - Outage Analytics
 - Revenue Analytics
 - Shared Objects
 - Work & Asset Analytics
 - Operational Device Analytics

Note: For more information on User Security and Managing Catalog objects, refer to *Oracle Business Intelligence Presentation Services Administration Guide*.

Managing Folders and Content

New folders can be created you if new answers or modifications to existing ones are needed.

To create new folders (or Development Folders), log onto the **Presentation Services** as an Administrator and access:

Catalog > New Folder

Once a new folder is created, set the following values:

- Properties
- Name
- Delete
- Permissions
- Copy/Move

You can save new answers onto the development folders, thereby leaving the out-of-box folders as is. Once the answer is created, the report is written and the unit testing is complete, the request can be moved to the common folder.

The default folders are loaded during the install of Oracle Business Intelligence Enterprise Edition. These folders, such as 00 Overview, 01 Ranks & Toppers, or 02 History & Benching can be removed from view by navigating to catalog, and then deleting the dashboards that you do not want displayed from the list.

Editing Names and Descriptions of Objects

To edit names and descriptions of objects, log on to the **Presentation Services** as an administrator and access the following:

Catalog > Shared Folders

Chapter 9

Installing the Oracle Utilities Analytics Admin Tool

Oracle Utilities Analytics Admin Tool is an Oracle Application Express (APEX) based configuration tool that can be used to configure Oracle Utilities Analytics.

This chapter describes how to install the Admin Tool for the Oracle Data Integrator (ODI) configuration and change the default password of the Admin user.

- **Installing the Admin Tool**
- **Changing the Default Password of the Admin User**

Installing the Admin Tool

Perform the steps mentioned below to install APEX run time and deploy the Admin Tool for Oracle Data Integrator configuration:

If you have already installed the Admin Tool and upgrading to OUA 2.5.1.0.0, follow the below steps.

1. Download the **patch 17966818** from My Oracle Support (<http://support.oracle.com>).
2. Copy it to the database server under `.../<Temp>` directory.
3. Unzip the file.
4. Change the current directory to `../<Temp>/patch`.
5. Connect to the database as the sys user.

```
EXEC DBMS_XDB.SETHTTPPORT (0);
@apxpatch.sql
@apxldimg.sql .../<Temp>/patch
```

6. Start the XML DB run:

```
EXEC DBMS_XDB.SETHTTPPORT (<not in use port>);
For example, EXEC DBMS_XDB.SETHTTPPORT(8080);
```

7. Restart the database.
8. Import the **Admin Tool** for Oracle Data Integrator configuration:
 - Oracle Utilities Analytics V2.5.1ETL Component Based on ODI Multiplatform.zip file has a folder called **AdminTool**.
 - Unzip this file and copy the **AdminTool** directory contents.
 - Create the `../AdminTool` directory on the database server and copy the contents of the AdminTool directory (from the zip file) to this directory.

- Go to the **../AdminTool** directory, i.e., `cd ../AdminTool`
- Connect as the system user and execute the following scripts:
- Import application:
 - `@DeployAdminApp.sql`
- Deploy supporting objects:
 - `@DeploySupportingObjects.sql`

If you are installing the Admin Tool from the scratch, follow the below steps.

1. Download **apex_4.2.5.zip** file from:
http://www.oracle.com/technology/products/database/application_express/download.html
2. Unzip **apex_4.2.5.zip** to the directory `<APEX_UNZIPPEDPATH>` and copy to the database server.
3. Change the directory to `<APEX_UNZIPPEDPATH>/apex` after unzipping **apex_4.2.5.zip** file.
4. Logon using sqlplus as the sys user and run the SQL file **apxrtins.sql** with the parameters as shown below:

```
@apxrtins <Tablespace Name for apex> <Tablespace Name for apex>
<Temporary tablespace name> /i/
```

Note: If you are using 12C version of the database, run the **apxremov.sql** after connecting to the sys user before running the **@apxrtins** script.

5. Change the password of admin account by running the following SQL command:

```
@apxchpwd
```

6. Restart the database.
7. Configure the embedded PL/SQL gateway. Logon as sys user and run.

```
@apex_epg_config <APEX_UNZIPPEDPATH>
```

8. Unlock the anonymous account:

```
ALTER USER ANONYMOUS ACCOUNT UNLOCK;
```

9. Start the **XML DB** run:

```
EXEC DBMS_XDB.SETHTTPPORT(<not in use port>);
```

e.g `EXEC DBMS_XDB.SETHTTPPORT(8080);`

10. Verify using:

```
SELECT DBMS_XDB.GETHTTPPORT FROM DUAL;
```

11. Import the **Admin Tool** for Oracle Data Integrator configuration:

- Oracle Utilities Analytics V2.5.1ETL Component Based on ODI Multiplatform.zip file has a folder called AdminTool.
- Unzip this file and copy the **AdminTool** directory contents.
- Create the **../AdminTool** directory on the database server and copy the contents of the AdminTool directory (from the zip file) to this directory.
- Go to the **../AdminTool** directory, i.e., `cd ../AdminTool`
- Connect as the system user and execute the following scripts:

-
- Create the workspace and configure the users:
 - @CreateAppWorkspace.sql
 - Import application:
 - @DeployAdminApp.sql
 - Deploy supporting objects:
 - @DeploySupportingObjects.sql
12. The Admin Tool for Oracle Data Integrator configuration can be accessed using the URL `http://<hostname>:8080/apex/f?p=104`
- The username to access the Admin Tool is Admin. The default password is Admin_123.
- Note:** For a complete description of the Admin Tool, refer to *Oracle Utilities Analytics Administration Guide*.

Changing the Default Password of the Admin User

The following APEX API can be used to change the password of the admin user. This script should be run after connecting to the database as user SYSTEM.

The string 'New password' should be replaced with the new password for the admin account before running the script.

```
begin

wwv_flow_api.set_security_group_id(p_security_group_id=>nvl(wwv_flow_a
pplication_install.get_workspace_id,2090606133849294));
end;
/

begin
apex_util.edit_user(
p_user_id      => '2090514487849294',
p_user_name    => 'ADMIN',
p_web_password => 'New password',
p_new_password => 'New password'
);
end;
/

commit;
/
```

Important Note: It is strongly recommended that you should the default password after logging in.

Appendix A

Data Warehouse Implementation Guidelines

This chapter provides guidelines for implementing the data warehouse setup for Oracle Utilities Analytics.

The following sections are discussed in the detail:

- **Init.ora Settings**
- **Oracle Partitioning**

Init.ora Settings

Internal performance testing for a large Business Intelligence (BI) database installation has identified the following parameter settings that resulted in a fast load and materialized view refresh for a fact table with over 100,000,000 records.

Note: The settings mentioned in the below table were noticed for an Oracle 10.2 database running on an IBM AIX 5.2 machine with 8 CPUs and 15 GB of memory; hence, some of these values may not apply for the different hardware or software settings.

Parameter	Value
db_file_multiblock_read_count	32
db_cache_size	0M
shared_pool_size	0M
large_pool_size	0M
Java_pool_size	0M
parallel_max_servers	8
parallel_execution_message_size	65535
log_buffer	64554432
Pga_aggregate_target	2000M
session_cached_cursors	60
optimizer_index_caching	80
optimizer_index_cost_adj	30

Parameter	Value
Sga_max_size	4000M
Sga_target	2000M
shared_pool_reserved_size	64M
workarea_size_policy	AUTO
db_writer_processes	8
timed_statistics	False
cursor_space_for_time	True
Disk_asynch_io	True

Oracle Partitioning

As the primary keys for all tables are sequential, it is possible to partition any table based on the primary key field. However, the fact tables should be partitioned based on one of the Date Keys present in the table. Some of the date keys are optional; hence, it is important to pick a date key field that will always have a non-zero value.

Note: As the Recent fact table needs to be purged daily, it does not require to be partitioned. Also, partitioning should be done only when materialized views do not prove sufficient enough to achieve the desired performance.

For details on partitioning, refer to *Oracle Utilities Analytics Administration Guide*.

Appendix B

Installation Menu Functionality

This chapter provides the functionality details regarding the installation menu for installing Oracle Utilities Analytics application.

The following sections are discussed here:

- **Overview of the Installation Menu Functionality**
- **Details of the Installation Menu Functionality**

Overview of the Installation Menu Functionality

The main configuration menu is structured so that the related variables and/or options are grouped together and are associated by a menu item number. To access a particular group of variables and options, enter the menu item number associated with that group. Each option within a group is displayed in turn on the page along with a prompt so that you can type the desired value for the option, if it is not the same as the default or current value.

When performing the initial installation, go through all the menu options. The menu options may have a default value, a list of the valid values, and a validation check.

On each option prompt, you can keep the current value by simply leaving the input line empty. In order to erase a variable value, enter a single dot ("."). The leading spaces are trimmed out on each value that are entered.

Note: While working with the menu, you will notice the following:

- **Valid Values [ALFANUM]:** This indicates to enter an alphanumeric value in the prompt.
- **Valid Values [NUM]:** This indicates to enter an numeric value in the prompt.

When all the menu options are set, type <P> at the main menu prompt option. The option values selected throughout the configuration are saved.

During this processing, the global variables are validated and the configuration file <SPLEBASE>/etc/ENVIRON.INI is created or updated. This file contains all the entered and calculated variables. These are required by the next part of the installation process.

To exit the configuration utility without saving any of the values entered, type <X> and click **Enter**.

Details of the Installation Menu Functionality

The Environment Installation Utility requires that Oracle Client Home is set in the path for the user performing the installation. Prior to running the installation utility, you must review the supported platforms document to ensure that you have all the required third-party software installed at your end. In the Installation menu if the variables are set prior to execution, then these variable values will be defaulted by the installation utility during installation.

When installation completes successfully, the values will be written to an **ENVIRON.INI** file. When `splenviron.sh / cmd` is executed, it reads from the **ENVIRON.INI** file to set the environment variables.

In the worksheets, there are three different types of values given:

- **Default Values:** Values, which can be defaulted while running the installation utility.
- **Security Values:** Values, which should be changed when in production.
- **Example Values:** Values, which can be used for a default installation.

Note: The production environment should not be run with default values.

Refer to *Server Administration Guide* for additional information about configuring these values.

When you enter passwords, you cannot see password characters on the screen as they are entered in the silent mode. The passwords are encrypted when the values are entered by a user.

Install the Oracle client software specified in the Chapter 3: **System Requirements and Supported Platforms** prior to running any installation utilities.

The following prompt appears when executing the installation utility:

Enter Oracle Client Home Directory (<ENTER> quit):

Note: If the environmental variable `ORACLE_CLIENT_HOME` is set, then the install script validates the variable. If it passes the validation, you will not be prompted for it. This is needed in order to run Perl installation utilities.

Appendix C

Installation and Configuration Worksheets

This chapter provides the installation and configuration worksheets for Oracle Utilities Analytics.

The following topics are discussed:

- **Configuration Worksheet for ETL Component based on Oracle Warehouse Builder Installation**
- **Configuration Worksheet for ELT Component based on Oracle Data Integrator Installation**
- **Configuration Worksheet for Dashboard Component Installation**

Configuration Worksheet for ETL Component based on Oracle Warehouse Builder Installation

The environment installation options are as shown below:

- **Environment Installation Options**
- **Environment Configuration Options**

Environment Installation Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_H OME	The home directory of the Oracle client. The application uses the Perl included under this Oracle client. Example Location: /oracle/client/product/ 11.2.0.3	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>	<p>The mount point into which the application is installed.</p> <p>The local directory where the components are to be installed.</p> <p>For example: /OUA for UNIX and C:\OUA for Windows</p> <p>This mount point must exist and the Administrator User ID writes to this directory. (This is the user ID, created specifically to administer the environments; the installation sets permissions on all subdirectories installed under this directory).</p> <p>See <SPLENVIRON> below for more information on how this mount point is used.</p>	
Log File Mount Point	<SPLDIROUT>	<p>A mount point that contains any application output or application logs.</p> <p>For example, the value is /OUA/sploput for UNIX installation or C:\OUA\sploput for Windows</p>	
Environment Name	<SPLENVIRON>	<p>A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment.</p> <p>For example, DEV01 or CONV</p>	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Web Java Home Directory	JAVA_HOME	The location on the disk where Java 1.6 is installed. For example, \$ORACLE_BI_HOME/ jdk	

Environment Configuration Options

The following options are discussed in this section:

- Environment Description
- Database Configuration
- Design Repository Configuration
- Database Character Set Configuration
- Editing Process Flow Configuration
- Email Configuration
- Control Center Configuration
- External Data Source Configuration

Environment Description

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Description	DESC	This is the text field to describe the purpose of the environment.	

Database Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWBWorkspace Owner	OWB_WS_OWNER	Oracle Warehouse Builder workspace owner created in the section Creating and Configuring the Oracle Warehouse Builder Workspace .	BIREPOWN

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWB WorkSpace Owner Password	OWB_WS_OWNER_PASS	Oracle Warehouse Builder workspace owner password created in the section Creating and Configuring the Oracle Warehouse Builder Workspace . The password to login to Oracle Warehouse Builder design center. This is a security value.	BIREPOWN user password
Database Name	OBIEE_DBNAME	The name of the database instance that the application is connecting to.	BI Database Name
Database Server	OBIEE_DBSERVER	The host name of the server where the database resides.	BI Database Server
Database Port	OBIEE_DBPORT	The database port number on the database server used for connecting to the database.	BI Database PORT

Design Repository Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWB WorkSpace User	OWB_WS_USER	Oracle Warehouse Builder workspace user created in the section Creating and Configuring the Oracle Warehouse Builder Workspace . The User to login to Oracle Warehouse Builder Design Control Center.	BIREPO

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWB Workspace user Password	OWB_WS_PASS	Oracle Warehouse Builder workspace User Password created in the section Creating and Configuring the Oracle Warehouse Builder Workspace. The password to login to Oracle Warehouse Builder Design Control Center. This is a security value.	BIREPO user password
OWB WorkSpace Name	OWB_WS_NAME	The name of the workspace created using the Repository Assistant.	SPLBIREP
DWADM SCHEMA NAME	DWADM_SCHEME	The user ID to register Oracle Warehouse Builder locations.	DWADM
DWADM SCHEMA Password	DWADM_PASS	The password to register Oracle Warehouse Builder locations.	DWADM user password
WORKFLOW MANAGER SCHEMA NAME	OWFMGR_SCHEME	The user ID to register Oracle Warehouse Builder locations.	OWFMGR
WORKFLOW MANAGER SCHEMA Password	OWFMGR_PASS	The password to register Oracle Warehouse Builder locations.	OWFMGR user password

Database Character Set Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Database Character set	DBCS	The database character set to used to create the database.	AL32UTF8

Editing Process Flow Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Repository Operating System	REPOPSYS	<p>The database operating system.</p> <p>For example, Win or Linux (any other platform)</p> <p>The valid values are as listed: Win: windows Linux: for any non windows platforms</p>	
Perl Compiler location	PERLCMD	<p>The Perl compiler set in the database.</p> <p>For example: /usr/bin/perl</p>	<ORACLE_HOME>/perl/bin/perl
Data and control files location	CTLFOLDER	<p>The data and the control file extracts location, where the flat files placed to pickup by the file processor.</p> <p>For example: user location</p>	
Separator to be used	FILESEP	<p>The separator to be used for Oracle Warehouse Builder deployment, where the database resides.</p> <p>For example: For Windows \\ and for Linux /</p>	<p>For Unix: Use forward slash (/)</p> <p>For Windows: Use backslashes (\\)</p>
File Manager location	FILEMGR	<p>The File Manager location on the database server. Copy the splfilemanager.plx file from the BI251/Scripts directory to this location.</p>	

Email Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Email ID of Sender	EMAILIDSEN	The Email ID of the sender to be configured in Oracle Warehouse Builder in the deployment For example: OWB@oracle.com	
Email ID for Reply-To address	EMAILIDRPL	The Email ID of the Reply TO to be configured in Oracle Warehouse Builder in the deployment.	
Email ID of Receiver	EMAILIDREC	The Email ID of the receiver to be configured in Oracle Warehouse Builder while in deployment.	
SMTP server	SMTPSRV	The host name of the server where the SMTP service configured.	
SMTP server port	SMTPPORT	The port number on the server where the SMTP service configured.	

Control Center Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Repository Control Center Name	CCNAME	The Oracle Warehouse Builder Repository Control Center to be created or used to deploy the Oracle Warehouse Builder objects.	

External Data Source Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Path of the External Datasource	EXTERNAMEDS	The path of the extracts location.	Must be the same as the value of 'data and control files location'.

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Path of the External Datasource LOG	EXTERNAMEDS_LOG	The path of the extracts log location.	Must be same as the value of 'Data and control files location'.
File Processor Daemon Execution Switch	FPDEXECUTION_SWITH	The file processor execution switch.	1
File Processor Extract Max Load	FPDEXTRACT_MAXLOAD	The file processor to pick up the extractor to load.	5
File Processor Scheduler Poll Duration	SCHEDULER_POLL_DURATION	The file processor scheduler poll duration.	60

Configuration Worksheet for ELT Component based on Oracle Data Integrator Installation

Environment installation options are as shown in the section below:

- Environment Installation Options
- Environment Configuration Options

Environment Installation Options

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME	The home directory of the Oracle client. The application uses the Perl included under this Oracle client. The user used to install the Oracle client should be used to install ELT component based on Oracle Data Integrator. Example Location: /oracle/client/product/11.2.0.3	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>	The mount point into which the application is installed. The local directory where components to be installed. For example:/OUA for UNIX and C:\OUA for Windows This mount point must exist and the administrator user ID writes to this directory. (This is the user ID, created specifically to administer the environments; the installation sets permissions on all the subdirectories installed under this directory. See <SPLENVIRON> below for more information on how this mount point is used.	
Log Files Mount Point	<SPLDIROUT>	A mount point that contains any application output or application logs. For example, the value is / OUA/sploutput for the UNIX installation, or C:\OUA\sploutput for the Windows	
Environment Name	<SPLENVIRON>	A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment. For example, DEV01 or CONV	
Web Java Home Directory	JAVA_HOME	The location on the disk where Java 1.6 is installed. For example: \$ORACLE_BI_HOME/jdk	

Environment Configuration Options

The Following options are discussed in this section:

- **Environment Description**
- **Oracle Data Integrator Environment Configuration**
- **Oracle Data Integrator Agent Configuration**
- **Target GoldenGate Configuration**
- **Source GoldenGate Configuration**

Environment Description

Environment description details are as shown in the table below:

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Description	DESC	This is a free form text field to describe the purpose of the environment.	

Oracle Data Integrator Environment Configuration

Oracle Data Integrator environment configuration details are as shown in the table below:

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WEBLOGIC HOME	WLS_HOME	The directory where WebLogic to be used for Oracle Data Integrator has been installed. For example: /WLS_HOME/ wlserver_10.3	
ODI HOME	ODI_HOME	The directory where Oracle Data Integrator (ODI) has been installed.	
ODI SUPERVISOR USER	ODI_SUP_USER	For example: /WLS_HOME/ Oracle_DI1	SUPERVISOR
ODI SUPERVISOR Password	ODI_SUP_PASS WORD	Oracle Data Integrator Supervisor password.	SUPERVISOR user password
Target Database Name	OBIEE_DBNAME	The name of the database instance from which the application connects to.	
Target Database Host	OBIEE_DBSERVER	The host name of the server where the database resides.	
Target Database Port	OBIEE_DBPORT	The database port number on the database server used for connecting to the database.	
DWADM Schema Name	DWADM_SCHEMA	The target schema user for the facts and the dimensions present.	DWADM
DWADM Schema Password	DWADM_PASS	The password for DWADM.	DWADM user password

Menu Option	Name Used in Documentation	Usage	Customer Install Value
ODI Master Schema Name	ODI_MASTER_SCHEMA	The Oracle Data Integrator Master Schema user where the Oracle Data Integrator master repository is created.	MASTER_REPO
ODI Master Schema Password	ODI_MASTER_SCHEMA_PASS	The Oracle Data Integrator Master Schema user password.	MASTER_REPO user password
ODI Work Schema Name	ODI_WORK_SCHEMA	The Oracle Data Integrator Work Schema User where the Oracle Data Integrator Work Repository is getting created. The default WORK REPO is OBIU.	WORK_REPO
ODI Work Schema Password	ODI_WORK_SCHEMA_PASS	Oracle Data Integrator Work Schema User Password	WORK_REPO user password
ODI Master Repository ID	ODI_MASTER_REPO_ID	Oracle Data Integrator Master Repository ID The default value is 601.	
ODI Work Repository ID	ODI_WORK_REPO_ID	Oracle Data Integrator Work Repository ID The default value is 602.	
MDADM Schema Name	MDADM_SCHEMA	The metadata user	MDADM
MDADM Schema Password	MDADM_Pass	The password for MDADM	MDADM user password

Oracle Data Integrator Agent Configuration

Menu Option	Name Used in Documentation	Usage	Customer Install Value
ODI WebLogic Agent Host	ODI_AGENT_HOST	The host on which Oracle Data Integrator WebLogic Domain is created.	Database host name

Menu Option	Name Used in Documentation	Usage	Customer Install Value
ODI WebLogic Agent port	ODI_AGENT_PORT	The port on which Oracle Data Integrator WebLogic agent is configured to run. This is the port of Oracle Data Integrator WebLogic Managed Server Port.	Provide available port and make sure to use the same port while creating Oracle Data Integrator managed server.

Target GoldenGate Configuration

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Target GoldenGate Manager Port	TRG_GG_MGR_PORT	The port number on which Oracle GoldenGate Manager is running on the target database server.	
Target GoldenGate Dynamic Minimum Port	TRG_GG_DYN_PORT_MIN	This is the dynamic minimum port configured in Oracle GoldenGate on the target database server.	Provide the start range value set for the target GoldenGate manager process.
Target GoldenGate Dynamic Maximum Port.	TRG_GG_DYN_PORT_MAX	This is the dynamic maximum port configured in Oracle GoldenGate on the target database server.	Provide the end range value set for the target GoldenGate manager process.
Target GoldenGate Algorithm	TRG_GG_ALGORITHM	This is the algorithm configured in Oracle GoldenGate on the target database server. The default value is 1.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Target GoldenGate Encryptkey	TRG_GG_ENCRYPTKEY	This is the Encrypt Key configured in Oracle GoldenGate on the target database server. The default value is "DEFAULT".	
Target GoldenGate Shared Secret	TRG_GG_SHARED_SECRET	This is shared secret key configured in Oracle GoldenGate on the target database server. The default value is "DEFAULT".	Go to the Oracle GoldenGate prompt and run the command: encrypt password <password of MDADM user>, encryptkey DEFAULT Provide the result of above command to this menu item.
Target Database Home	TRG_DB_HOME	This database home is installed location on the target database server. For example: /u00/oracle/app/oracle/product/11.2.0/dbhome_1	
Target GoldenGate Home	TRG_GG_HOME	This is the Oracle GoldenGate installed location on the target database server. For example: opt/local/ggs_12.1.2.0.0	

Source GoldenGate Configuration

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Source Instance Name	SRC_INST_NAME	The source from which the data has to be extracted.	The valid values are ODM1,ODM2...ODM9 for Oracle Utilities Operational Device Management application CCB1,CCB2...CCB9 for Oracle Utilities Customer Care and Billing source application. NMS1,NMS2...NMS9 for Oracle Utilities Network Management System source application. Provide the same value that is passed to -c option while running configureSourcedb script.
Source GoldenGate Manager Port	SRC_GG_MGR_PORT	The port number on which Oracle GoldenGate Manager is running on the source database server.	
Source GoldenGate Dynamic Minimum Port	SRC_GG_DYN_PORT_MIN	This is the dynamic minimum port configured in Oracle GoldenGate on the source database server.	Provide the start range value set for the source GoldenGate manager process.

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Source GoldenGate Dynamic Maximum Port.	SRC_GG_DYN_MAX_PORT	This is the dynamic maximum port configured in Oracle GoldenGate on the source database server.	Provide the end range value set for the source GoldenGate manager process.
Source GoldenGate Algorithm	SRC_GG_ALGORITHM	This is the algorithm configured in Oracle GoldenGate on the source database server. The default value is 1.	
Source GoldenGate Encryptkey	SRC_GG_ENCRYPTKEY	This is the Encrypt Key configured in Oracle GoldenGate on the source database server. The default value is "DEFAULT".	
Source GoldenGate Shared Secret	SRC_GG_SHARED_SECRET	This is the shared secret key configured in Oracle GoldenGate on the source database server. The default value is "DEFAULT".	Go to the Oracle GoldenGate prompt and run the command: encrypt password <password of source golden gate owner user>, encryptkey DEFAULT Provide the result of above command to this menu item.
Source Database Name	SRC_DB_NAME	This is the source database name, where Oracle Data Integrator connects to reverse engineer the source tables.	
Source Database Host	SRC_DB_HOST	This is source database server host.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Source Database Port	SRC_DB_PORT	This is source database port.	
Source Database Home	SRC_GG_DB_HOME	This is the source database home installed location.	
Source GoldenGate Home	SRC_GG_HOME	This is the Oracle GoldenGate installed location.	

Configuration Worksheet for Dashboard Component Installation

The following topics are included here:

- Environment Installation Options
- Environment Configuration Options

Environment Installation Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME	The home directory of the Oracle client. The application uses the Perl included under this Oracle client. Example location: <ORACLE_BI_HOME>/Oracle_BI1	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>	<p>The mount point into which the application is installed.</p> <p>For example: /OUA for UNIX and C:\OUA for Windows</p> <p>This mount point must exist and the administrator user ID writes to this directory. (This is the user ID, created specifically to administer the environments; the installation sets permissions on all subdirectories installed under this directory).</p> <p>See <SPLENVIRON> below for more information on how this mount point is used.</p>	
Log File Mount Point	<SPLDIROUT>	<p>A mount point contains any application output or application logs.</p> <p>For example, the value is /OUA/sploutput for UNIX installation or C:\OUA\sploutput for Windows</p>	
Environment Name	<SPLENVIRON>	<p>A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment.</p> <p>For example, DEV01 or CONV</p>	
Web Java Home Directory	JAVA_HOME	<p>The location on the disk where Java 1.6 is installed.</p> <p>For example: \$ORACLE_BI_HOME/jdk</p>	

Environment Configuration Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle BI Instance Home	ORACLE_INSTANCE	The location on the disk where Oracle Business Intelligence Enterprise Edition software is installed instance home. Example location for Oracle Database: /orasw/Middleware/instances/instance1	
Oracle BI Home	ORACLE_BI_HOME	The location on the disk where Oracle Business Intelligence Enterprise Edition software is installed Oracle_BI Home. Example location for Oracle Database: /orasw/Middleware/Oracle_BI1	
Oracle BI Domain Home	DOMAIN_HOME	The location on the disk where Oracle Business Intelligence Enterprise Edition software is installed Oracle_BI home. Example location for Oracle Domain home: /orasw/Middleware/user_projects/domains/bifoundation_domain	
WebLogic Domain Console User Name	WLS_EM_USER	WebLogic domain login user name. You will be prompted for the password after installation.	
WebLogic Domain Console Host	WLS_EM_HOST	The host name on which the web application server resides. Default value: <current server name>	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
WebLogic Domain Console Port Number	WLS_EM_PORT	A unique port number within the system that is assigned to the HTTP port. This is the port number that is used as a part of the client URL request to connect to the host. This is Oracle Business Intelligence Enterprise Edition WebLogic console admin port number. Example value: 7001	

Target Database Details

The target database details are as listed in the below table:

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Target Database Name	OBIEE_DBNAME	The name of the target database	
Target Database Host	OBIEE_DBSERVER	The host on which database is created.	
Target Database Port	OBIEE_DBPORT	This is the target database port.	
DWADM Schema Name	DWADM_SCHEMA	The schema name of the star schema.	DWADM
DWADM Schema Password	DWADM_PASS	The password for DWADM	DWADM user password

Appendix D

Additional Resources

Contacting Oracle Support

To contact Oracle support, visit the Oracle Support website at:

<http://www.oracle.com/support/index.html>

Appendix E

Installing the NMS Business Intelligence Publisher Reports

This section describes the steps to be performed while installing the Oracle Utilities Analytics NMS IEEE outage reports:

1. Unzip the IEEE outage reports contained in **OUA NMS BI Publisher reports.zip** from the installation media to a temporary directory (ex. TEMPDIR) on the server where Oracle BI Publisher is installed.
2. Log into Oracle BI Publisher (<http://<BI Publisher server name>:9704/xmlpserver/>) as the Administrator from a browser that has access to the TEMPDIR folder from the step 1.
3. Set up a database connection as follows:
 - a. Navigate to **Oracle BI Publisher Administration > Data Sources > JDBC Connection**.
 - b. Click **Add Data Source**.
 - c. In the **Data Source Name** field, enter *NMS BI Publisher* or a name of your choice.
 - d. Set the **Driver Type** to Oracle 9i/10g/11g.
 - e. Set the **Database Driver Class** to oracle.jdbc.OracleDriver.
 - f. Set the **Connection string** to: jdbc:oracle:thin:@<your machine>:<Port>:<the ORACLE_SID>
 - g. Set the **username** and **password** to match your Oracle Utilities Analytics database login values.
 - h. Click **Test Connection** and verify that it is properly configured.
 - i. Click **Apply**.
4. From the **BI Publisher Catalog** page, select **Shared Folders** from the folders tree.
5. On top of the folders section, click the **New** drop-down list and select **Folder** from the list.
6. Enter *NMS IEEE Reports* as the folder name (or a name of your choice), then click **Create**. The new folder is added. You may have to click **Refresh** button to update the Folders list.
7. Select the *NMS IEEE Reports* folder in the folder list. Under the **NMS IEEE Reports** folder, create another new folder named **NMS IEEE Data Models**.
8. Select the **NMS IEEE Data Models** directory, and then click **Upload** in the **Tasks** section on the bottom left.

-
- a. Browse to the directory where the NMS IEEE BI Publisher reports exist (TEMPDIR from step 1).
 - b. Locate all of the data model files and upload them to the **NMS IEEE Data Models** directory. These files contain an extension of .xdmz and include the following files:
 - CriticalCustomerOutages.xdmz
 - DailyTroubleReport.xdmz
 - DeviceOutageHistory.xdmz
 - IEEEIndiceCalculations.xdmz
 - IndicesByCity.xdmz
 - OutageSummary.xdmz
 - RecurringDeviceOutages.xdmz
 - SustainedOutagesByCauseSummary.xdmz
 - SustainedOutageSummary.xdmz
9. Select the **NMS IEEE Reports** directory, and then click **Upload** in the **Tasks** section on the bottom left
- a. Browse to the directory where the OUA NMS IEEE BI Publisher reports exist (TEMPDIR from step 1).
 - b. Locate all of the report files and upload them to the **NMS IEEE Reports** directory. These files contain an extension of .xdoz and include the following files:
 - CriticalCustomerOutages.xdoz
 - DailyTroubleReport.xdoz
 - DeviceOutageHistory.xdoz
 - IEEEIndiceCalculations.xdoz
 - IndicesByCity.xdoz
 - OutageSummary.xdoz
 - RecurringDeviceOutages.xdoz
 - SustainedOutagesByCauseSummary.xdoz
 - SustainedOutageSummary.xdoz
10. Assign the appropriate JDBC connection to the imported data models.
- a. Click **Catalog**.
 - b. Select the **NMS IEEE Data Models** directory, and then select the CriticalCustomerOutages.xdmz data model.
 - c. Click **Data Model** on the top left.
 - d. In the **Properties** frame on the right, make sure that **Default Data Source** points to the data source you created earlier. This defaults to **NMS BI Publisher**.
 - e. You must perform this step for all of the data models under the NMS IEEE Data Models directory.
11. Assign the appropriate data model to all the NMS IEEE Reports.
- a. Click on **Catalog**.
 - b. Select the **NMS IEEE Reports** directory, select the **CriticalCustomerOutages.xdoz** report and click **Edit** below the report.

-
- c. At the top left of the page, click **Search**.
 - d. Browse and select the appropriate data model file (will match the name of the report with an extension of .xdmz).
 - e. Save the current report by clicking **Save** on the top-right of the page.

You should now be able view the standard IEEE indices reports from BI Publisher by simply selecting the desired report from the **NMS IEEE Reports** directory under the **Catalog**.

Appendix F

Installing Oracle Utilities Analytics 2.5.1 on Oracle Database 12c Pluggable Database

This chapter describes the additional steps to be performed while installing Oracle Utilities Analytics 2.5.1 on an Oracle Database 12c pluggable database.

When using a 12c pluggable database as the source, follow the below source side Oracle GoldenGate configuration steps instead of the step number 13 provided in the section **Setting up Oracle GoldenGate on the Source Database Server**:

Note: The other steps in the section **Setting up Oracle GoldenGate on the Source Database Server** remain the same for the pluggable databases.

1. Create the tablespace in all the pluggable database with the same name and make sure that this tablespace is not assigned to any user.
2. Connect to the root (container database) and create the Oracle GoldenGate owner with command.

For example:

```
CREATE USER c##CCB01SRC
IDENTIFIED BY <password>
DEFAULT TABLESPACE <ggowner tablespace>
CONTAINER = ALL;
```

3. Set the set streams_pool_size parameter in the database.
4. Connect to the required PDB.
For example, alter session set container=CCBI24DE
5. Grant the connect, resource and dba privileges to the Oracle GoldenGate owner:
For example, grant connect,resource,dba to c##CCB01SRC;

Appendix G

License and Copyright Notices

This chapter describes about licensing and optional features, including:

- **Oracle Warehouse Builder Licensing and Optional Features**
- **Oracle Warehouse Builder Licensing and Optional Features**
- **Disabling the Optional Features in Oracle Warehouse Builder**
- **Oracle GoldenGate Licensing**

Oracle Database Licensing and Optional Features

With Oracle Utilities Analytics release v2.5.1, the **Standard Edition** of Oracle database is now supported. Currently, this support is only for the customers using those Extractors and Schema products, which are based on Oracle Data Integrator (ODI) based extraction, and includes:

- Oracle Utilities Operational Device Management Extractors and Schema
- Oracle Utilities Customer Care and Billing Extractors and Schema

However, Oracle recommends to use the **Enterprise Edition** of the Oracle database for performance and scalability reasons, as the Oracle Utilities Analytics data warehouse is expected to handle large volumes of data. Oracle Utilities Analytics also supports the **Oracle Partitioning** feature, which is an extra cost option on the top of the Oracle Database Enterprise Edition. Using this feature, it is also recommended for the efficient data storage and retrieval by the Oracle Utilities Analytics product.

By default, the **Enterprise Edition** and the **Partitioning** features are turned off in the Oracle Utilities Analytics product. Once the appropriate licenses have been purchased, these features can be turned on in the **Global Configuration** settings using the Oracle Utilities Analytics Administration Tool described in the **Appendix B** of *Oracle Utilities Analytics Administration Guide*.

Oracle Warehouse Builder Licensing and Optional Features

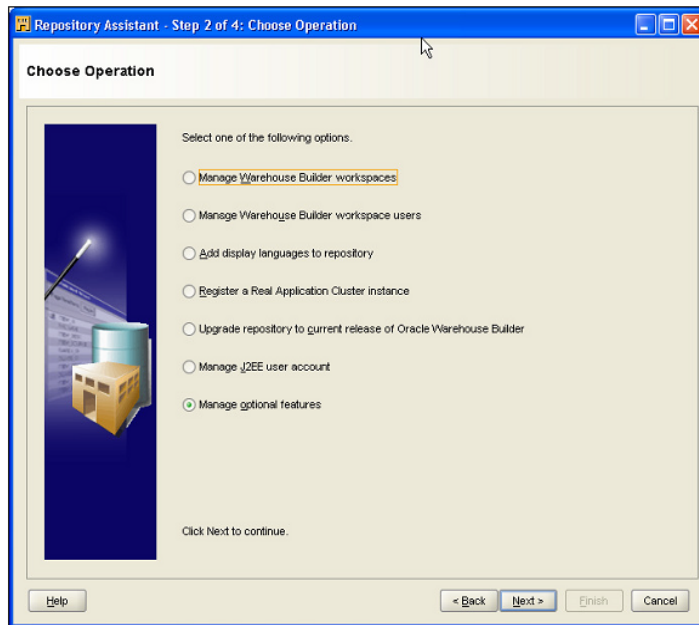
Oracle Warehouse Builder (OWB) provides various optional features, which are not included in the basic Extraction, Transformation, and Loading (ETL) feature group. The basic ETL feature group is included in the Oracle Database Enterprise Edition license. Hence, there is no additional license cost required to use, or install the basic features. The standard ETL processes included in Oracle Utilities Analytics (OUA) uses only the features that are included in the basic ETL feature group.

In addition, the Oracle Warehouse Builder Code Generator does not create any code that requires the use of optional Oracle Warehouse Builder features. Hence, any additional Extraction, Transformation, and Loading (ETL) code created by an implementation using the Oracle Warehouse Builder Code Generator does not require any additional Oracle Warehouse Builder

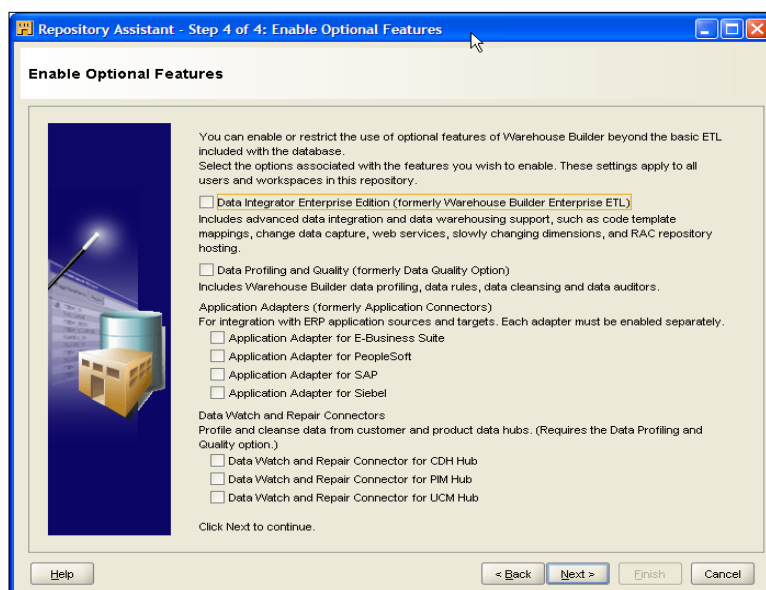
license costs. However, if Oracle Warehouse Builder is used to create other ETL code outside of the Oracle Warehouse Builder Code Generator, then using some of these optional features may require additional Oracle Warehouse Builder licenses.

Disabling the Optional Features in Oracle Warehouse Builder

In order to ensure that optional features are not used, Oracle Warehouse Builder (OWB) provides a means to disable the use of optional features. After starting the Warehouse Builder Repository Assistant, choose the “**Manage optional features**” operation, as shown in the following screenshot.



After entering the password for the OWBSYS user, deselect all of the licensed option names on the **Enable Optional Features** page.



Once the options are deselected, the new selections will take effect for any new connections to Oracle Warehouse Builder, and if options are used that are not available, an error dialog is displayed.

Note: For further details regarding the feature groups and licensing of Oracle Warehouse Builder, visit the Oracle Warehouse Builder page on the Oracle Technology Network (OTN) at this location:

<http://www.oracle.com/technetwork/developer-tools/warehouse>

Oracle GoldenGate Licensing

The Oracle GoldenGate license purchased along with Oracle Utilities Analytics v2.5.1, can be used to replicate additional tables from the any of the source systems products whose ELT processes are based on Oracle Data Integrator (ODI), which includes:

- Oracle Utilities Operational Device Management
- Oracle Utilities Customer Care and Billing

For any other usage of the Oracle GoldenGate product, purchase a full license of the Oracle GoldenGate product. Contact Oracle Support for the details.