Oracle Utilities Digital Asset Management

Installation Guide

Release 2.0.0.1.1

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ORACLE

Oracle Utilities Digital Asset Management Release 2.0.0.1.1 Installation Guide

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Preface

Welcome to the Oracle Utilities Digital Asset Management Installation Guide. This guide provides information about installing Oracle Utilities Digital Asset Management V2.0.0.1.1 and is intended for anyone interested in the installation process.

Audience

This guide is intended for anyone interested in the installation process.

To complete the installation you should have:

- Administrative privileges on the host where you are installing the software.
- Experience installing and configuring application servers and other software.

Related Documents

For more information, refer to these Oracle documents:

Installation Guides and Release Notes

- *Oracle Utilities Digital Asset Management Release Notes*
- *Oracle Utilities Digital Asset Management Quick Install Guide*
- *Oracle Utilities Digital Asset Management Installation Guide*
- *Oracle Utilities Digital Asset Management Database Administrator's Guide*
- *Oracle Utilities Digital Asset Management Licensing Information User Manual*

User Guide

- *Security Guide*
- *Server Administration Guide*

Updates to Documentation

The complete Oracle Utilities Digital Asset Management documentation set is available from Oracle Help Center at https://docs.oracle.com/en/industries/energy-water/index.html.

Visit My Oracle Support for additional and updated information about the product.

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.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Acronyms

The following acronyms and terms are used in this document:

Term	Description
C2M	Oracle Utilities Customer to Meter
OUAF	Oracle Utilities Application Framework
MDM	Oracle Utilities Meter Data Management
DAM	Oracle Utilities Digital Asset Management

Additional Resources

Additional and updated information about the product is available on My Oracle Support. For more information and support, visit the Oracle Support website.

Chapter 1

Overview

This chapter provides a high-level overview of the Oracle Utilities Digital Asset Management installation.

To install Oracle Utilities Digital Asset Management:

1. Review the different tiers of the application architecture as described in Application Architecture Overview.
2. Understand the hardware requirements for installing the application and the supported platforms for the application and database servers as described in Supported Platforms and Hardware Requirements.

   Note: The installation and administration of the database server tier is described in detail in the *Oracle Utilities Digital Asset Management Database Administrator's Guide* included in this release.
3. Install the database as described in the *Oracle Utilities Digital Asset Management Database Administrator's Guide* included in this release.
4. Plan your installation as described in Planning the Installation.
5. Install all required third-party software as described in Installing Application Server Prerequisite Software. The required software is listed for each supported combination of operating system and application server.
6. Install the framework for the application as described in Installing Oracle Utilities Digital Asset Management.
7. Install Oracle Utilities Digital Asset Management as described in Installing the Application Server Component of Oracle Utilities Application Framework.
8. Follow the post-installation guidelines described in Additional Tasks.

Chapter 2

Application Architecture Overview

This chapter provides an overview of the Oracle Utilities Application Framework application architecture.

The Oracle Utilities Application Framework application is deployed on multiple tiers.

Refer to the *Server Administration Guide* included in this release for a more detailed description of the application architecture and individual tiers.

Tier 1: Desktop/Client, or Presentation Tier

This tier is implemented in a browser-based client. Users use a desktop client web browser to log in to and use the Oracle Utilities Digital Asset Management application. Note also that a desktop machine running Microsoft Windows and the Oracle client is required to perform some of the Oracle Utilities Digital Asset Management product installation steps.

Tier 2: Web Application / Business Application Server, or Business Logic Tier

This tier is implemented in a web application server, business application server, or the batch server. The business application component can be installed as part of the web application server, or as a separate component. Except where explicitly noted, most of the Oracle Utilities Application Framework installation documentation assumes that the web application and business application servers reside together. The batch infrastructure will also run within this tier. You can have multiple batch server instances that serve the application.

Tier 3: Database or Persistence Tier

This tier is implemented in a database server. The database server stores data maintained by the Oracle Utilities Digital Asset Management application. More specifically, the database tier contains the data server files and database executables that physically store the tables, indexes, and other database objects for your system.

Chapter 3

Supported Platforms and Hardware Requirements

This chapter provides 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 on. It includes:

- Software and Hardware Considerations
- Requirements by Tier
- Supported Platforms
- Application Server Memory Requirements
- Support for Software Patches and Upgrades

Software and Hardware Considerations

Many factors can influence the software and hardware decisions. For example, your system may have to satisfy specific performance, availability, or scalability requirements, or to support running in a language other than English. These business requirements, together with the chosen system architecture, should be used in initial software and hardware planning.

Some of the questions that you should answer before beginning the installation include:

- On which hardware platform and operating system will Oracle Utilities Digital Asset Management be deployed?
- Which web server product will Oracle Utilities Digital Asset Management deploy on?
- Which database product will Oracle Utilities Digital Asset Management deploy on?
- Do you plan to deploy multiple Oracle Utilities Digital Asset Management instances on the same physical server?
- How do you plan to deploy Oracle Utilities Digital Asset Management?
    - Web/application/database on the same physical server?
    - Web/application on one server and database on separate server?
    - Each component on its own server?

For detailed descriptions of various deployment architecture choices that may aid in planning, please see the document *Oracle Utilities Application Framework Architecture Guidelines,* available on My Oracle Support (Article ID 807068.1).

The final hardware and software decisions must comply with the specific requirements of the Oracle Utilities Digital Asset Management product, as described in the rest of this chapter.

Requirements by Tier

The application is deployed on multiple Tiers:

- Tier 1, Desktop
- Tier 2, Web/Business Application Server
- Tier 3, Database Server

Tier 1, Desktop: Software and Hardware Requirements

Configuration	Processor	Memory (RAM)
Minimum	Pentium IV - 2.0 GHz	1024 MB
Recommended	Pentium IV - 3.0+ GHz or any Core 2 Duo or any Athlon X2	2048MB

Minimum monitor display size: 1920 X 1080

Tier 2, Web/Business Application Server: Software and Hardware Requirements

Refer to Supported Platforms to determine which web application servers can be used with the operating system that will be hosting this tier.

The recommendations that follow are based on a standard installation with both the web application and business application servers on the same machine and the system running with the default values. The default values may not support a production environment. You should adjust these values according to your production needs. Refer to the *Server Administration Guide* on how to change the default values. The minimum resource requirements exclude third-party software installation requirements. Refer to the third-party vendors for specific requirements. The following sizing excludes the Oracle database server installation.

Tier 3, Database Server: Software and Hardware Requirements

Refer to Supported Platforms for information about the supported database servers.

Supported Platforms

The installation has been tested to operate on many operating system, application server, and database server combinations. For the software requirements for each of these combinations, refer to Installing Application Server Prerequisite Software.

Operating Systems and Application Servers

This section details the operating system and application server combinations on which this version of Oracle Utilities Digital Asset Management is supported.

Application Server Operating Systems

- Oracle Linux 8.x for x86_64
- Oracle Solaris 11.4+ for SPARC (64-bit)
- IBM AIX 7.2 TL5+ for POWER (64-bit)

Prerequisite Application Server Software

- Oracle Database Client 19c
- Oracle Java SE Development Kit 1.8.0_x (Windows, Solaris and Linux platforms only)
- IBM 64-bit SDK for AIX 8.0.0.x (IBM platforms only)
- Select jars from Hibernate ORM 4.1.0
- Oracle WebLogic Server 12c (Release 12.2.1.4) 64-bit

  Notes:

  Oracle Linux is 100% user space-compatible with Red Hat Enterprise Linux, therefore, Oracle Utilities Application Framework is also supported on Red Hat Enterprise Linux.

  Refer to the *Oracle Utilities Application Framework Database Administrator's Guide* for the Oracle database server requirements.

Refer to the *Certification Matrix for Oracle Utilities Products (Document ID 1454143.1)* document on My Oracle Support to determine if support for newer versions of the listed products have been added.

Please note the following:

- Version numbers marked with a "+" are the MINIMUM version supported. That version and all future 4th digit updates will be supported.

  Example: Oracle 12.1.0.2+ means that 12.1.0.2 and any higher 12.1.0.x versions of Oracle are supported.

- An "x" indicates that any version of the digit designed by the "x" is supported.

  Example: Linux 8.x indicates that any version of Linux 8 (8.0, 8.1, 8.2 etc) will be supported.

Windows Server

- Windows Server is **not** supported for Production environments. Wherever Windows Server is referenced within this guide, it is supported for Test or Development environments **only**.

WebLogic Server

- Oracle WebLogic Server (Fusion Middleware Infrastructure) and any higher versions of Oracle are supported.
- Customers must download Oracle WebLogic Server from the Oracle Software Delivery Cloud.

Oracle Database Server

Prerequisite database server software (on any vendor supported platform where x is vendor supported version):

- Oracle Database Server Enterprise Edition 19c
- Oracle Database Server Standard Edition 2 19c

Oracle VM Support

This version of Oracle Utilities Digital Asset Management is supported on Oracle VM Server for x86 for supported releases of Oracle Linux and Microsoft Windows operating systems.

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

Application Server Memory Requirements

For each application server environment a minimum of 4 GB of real memory is required, plus 6 GB of swap space. The approximate disk space requirements in a standard installation are as follows (the size represents the MINIMUM required):

Location	Size	Usage
Install Dir ("$SPLEBASE") Location	10 GB recommended 5 GB minimum	Location where the application and Framework get installed. Startup, shutdown and other online log files are stored here. The size and space that is used should be monitored because various debugging options can significantly affect the size of log files. **Note**: This does not include the size of the edge product.
Log Dir ("$SPLOUTPUT") Location	10 GB recommended 2 GB minimum	Used for storing batch log files and output from batch jobs. The size of this space should be influenced by which batches are run and how often, and the amount of debugging information that is collected.
Location of the application web work files on the web servers	5 GB recommended 2 GB minimum	Used by various web server vendors to expand the application. It should be considered when installing these products. Refer to the individual web server documentation to determine the location of the temporary files.
Installation Temporary Area	10 GB minimum	The application gets installed from this location. You need enough space to un-compress the files and install the application.
Oracle Data Area	10 GB minimum	Location is where the Oracle database data files are stored. The size of this space should be based on the requirements of the production environment. For an initial or demo database install 4 GB should be sufficient.

Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will issue patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle Utilities Digital Asset Management has been tested with.

If it is necessary to apply an upgrade, please do so in a test environment that is running on the same platform as your production environment prior to updating the Oracle Utilities Digital Asset Management production environment.

The exceptions from this rule are Hibernate software version 4.1.0 GA and Oracle 19c. These should not be upgraded.

Always contact Oracle Utilities Digital Asset Management Support prior to applying vendor updates that do not guarantee backward compatibility.

Chapter 4

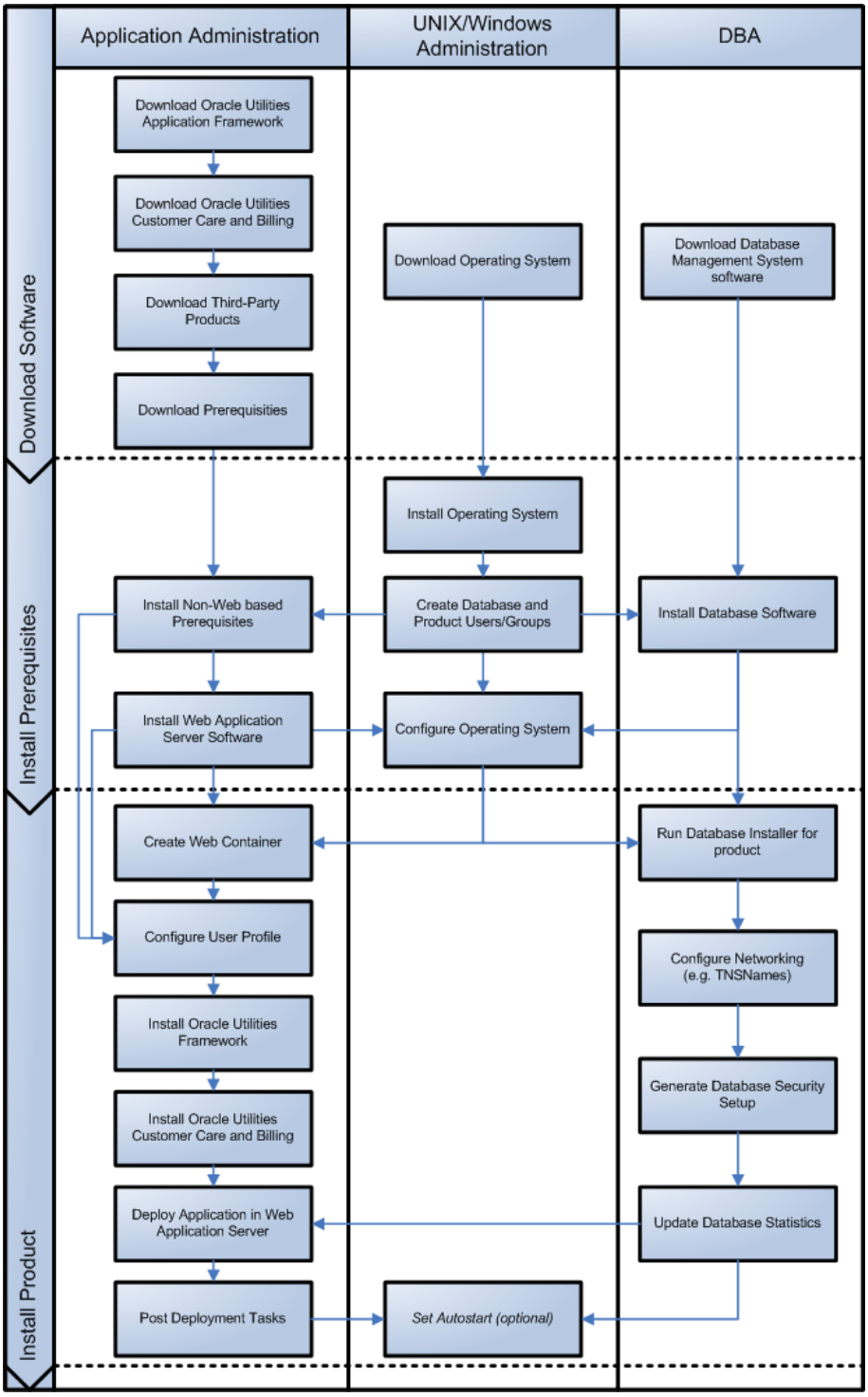
Planning the Installation

This chapter provides information for planning an Oracle Utilities Digital Asset Management installation, including:

- Installation and Configuration Overview
- Before You Install
- Installation Checklist
- Installation Menu Functionality Overview
- Installation and Configuration Worksheets

Installation and Configuration Overview

The following diagram provides an overview of the steps that need to be taken to install and configure Oracle Utilities Digital Asset Management:



Before You Install

Refer to My Oracle Support for up-to-date additional information on installing.

WebLogic Native Installation

With Oracle Utilities Application Framework 4.5.0.1.1, a WebLogic native installation is required. Refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Framework (Doc ID 2413918.1)* document on My Oracle Support for more information.

Application Server Clustering

If you are considering application server clustering, refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Framework (Doc ID 2413918.1)* document on My Oracle Support.

Additional information about WebLogic clustering, refer to the Fusion Middleware Using Clusters for Oracle WebLogic Server documentation.

Directory Names

Directory cannot contain whitespace characters.

Installation Checklist

The following checklist will help guide you through the installation process of the application tier. The details for each step are presented in subsequent chapters.

1. Install the database as described in the *Oracle Utilities Digital Asset Management Database Administrator's Guide* included in this release.
2. Create Group/User ID.
3. Install the prerequisite software (for complete details about installing and configuring the prerequisite third-party software for your specific platform, refer to Installing Application Server Prerequisite Software):
   - Oracle client 19c
   - Java 8
   - Hibernate 4.1.0
4. Install optional software.
5. Install web server Oracle WebLogic 12.2.1.4.

   Note: If you are upgrading and you are currently running Oracle Application Server please contact your Global Support Representative.
6. Verify that the software installed.
7. Set up the environment variables.
8. Install Oracle Utilities Application Framework.

9. Install Oracle Utilities Application Framework prerequisite single fixes (if there are any).
10. Install Oracle Utilities Customer Care and Billing.
11. Install Oracle Utilities Customer Care and Billing prerequisite single fixes (if there are any).
12. Install Oracle Utilities Meter Data Management.
13. Install Oracle Utilities Operational Device Management.
14. Install Oracle Utilities Digital Asset Management.
15. Install Oracle Utilities Digital Asset Management prerequisite single fixes (if there are any).
16. Deploy the Oracle Utilities Digital Asset Management application.
17. Complete the post-installation tasks.
18. Complete the optional third-party product integration (such as web self service or reporting tools).

Installation Menu Functionality Overview

The main configuration menu is structured so that 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 is displayed in turn on the screen, 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 you need to go through all menu options. The menu options may have a default value, a list of 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 you need to enter one dot (“.”). The leading spaces will be trimmed out on each values entered. The menu includes the following:

- **Valid Values: [ALFANUM].** This indicates you will need to enter an alphanumeric value in the prompt.
- **Valid Values: [NUM].** This indicates you will need to enter a numeric value in the prompt.

Please also note the following:

- When all options are set, type <P> at the main menu prompt option. This will save the option values selected throughout the configuration.
- 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 variables inputted and calculated. These are needed by the next part of the installation process.
- To exit the configuration utility without saving any of the values entered, type <X> and press 'Enter'.

Installation Menu Functionality Details

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 will need to review the supported platforms document to ensure you have all of the Third Party software installed.

In this menu if the variables are set prior to execution, that value will be defaulted by the installation utility when performing the installation.

When the installation has been completed successfully, the values will be written to an ENVIRON.INI file. When splenviron.sh / cmd is executed, it will read from the ENVIRON.INI file to set the environment variables. Refer to the *Oracle Utilities Application Framework Server Administration Guide* for details about configuring these values.

Install the Oracle Client software specified in the section in prior to running any of the 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, the install script will validate the variable. If it passes the validation you will not be prompted for it. This is needed in order to run Perl installation utilities.

Encryption Methods

The Oracle Utilities Application Framework installation also uses industry standard cryptography to encrypt passwords that are prompted within the installation.

When these passwords are entered in the command line, the input values are not reflected on the screen when performing the installation.

Installation and Configuration Worksheets

During the installation and configuration of the application you will need to provide a variety of system values. These worksheets will assist you in providing that information. They should be completed before installing the application framework, as described in the Installing the Application Server Component of Oracle Utilities Application Framework.

> **Note:** Some web application server information will not be available until the software installation steps have been completed as described in the Installing Application Server Prerequisite Software.

Refer to the *Server Administration Guide* for additional details (default, valid values, usage, etc.), as applicable.

Menu Block 1: Environment ID, Roles, Third Party Software Configuration

The Environment ID, Roles, Third Party Software Configuration options include:

Menu Option	Name Used in Documentation	Customer Install Value
Environment ID	ENVIRONMENT_ID	
Server Roles	SERVER_ROLES	
Oracle Client Home Directory	ORACLE_CLIENT_HOME	
Web Java Home Directory	JAVA_HOME	
Hibernate JAR Directory	HIBERNATE_JAR_DIR	
**ONS JAR Directory	ONS_JAR_DIR	
Web Application Server Home Directory	WEB_SERVER_HOME	
***Additional JAR Directory	WLTHINT3CLIENT_JAR_DIR	

* Denotes optional menu items that may be required for the product installation and variables.

** To activate the RAC FCF, the application needs the external ons.jar file, from the ORACLE_HOME path:

```
$ORACLE_HOME/opmn/lib/ons.jar
```

During the installation the relevant option should be populated with the folder location of the ons.jar.

Menu Block 2: Keystore Options

The keystore is a set of files used for encryption, decryption and hash generation. The files reside in the following location:

- <SPLEBASE>/ks/.ouaf_keystore
- <SPLEBASE>/ks/.ouaf_storepass

To run the application correctly, data encryption, decryption and hash generation of data in the database and on the application server must be performed using the same keystore; otherwise, the application will fail.

Starting Oracle Utilities Application Framework v4.4.0.0.0 the keystore and truststore options have been removed from the Menu and defaulted into the following template user exit that is loaded by all the properties files:

templates/FW_spl.properties.keystore.truststore.include

The user can still customize those options using the "Centralized Properties Customization".

Upgrades from Oracle Utilities Application Framework versions below 4.4.0.0.0 will still use the keystore and truststore options recorded in the existing etc/ENVIRON.INI file (Menu options file).

Note: Populate the "Import Keystore Directory" option to import an existing keystore.

Keystore options include:

Menu Option	Name Used in Documentation	Customer Install Value
Import Keystore Directory	KS_IMPORT_KEYSTORE_FOLDER	

Menu Block 50: Environment Installation Options

Environment installation options include:

Menu Option	Name Used in Documentation	Customer Install Value
Environment Mount Point	SPLDIR	
Log File Mount Point	SPLDIROUT	
Environment Name	SPLENVIRON	
Install Application Javadocs	WEB_ISJAVADOCS	
Install Sample CM Source Code	CM_INSTALL_SAMPLE	

Menu Block 1: Environment Description

The environment description menu option includes:

Menu Option	Name Used in Documentation	Customer Install Value
Environment Description	DESC	

Menu Block 2: [WebLogic] Business Application Server Configuration

WebLogic Business Application Server configuration options include:

Menu Option	Name Used in Documentation	Customer Install Value
Business Server Host	BSN_WLHOST	
Business Server Application Name	BSN_APP	

Menu Block 3: [WebLogic] Web Application Server Configuration

Refer to *Server Administration Guide* for additional details (default, valid values, usage, etc.)

WebLogic Web Application Server configuration options include:

Menu Option	Name Used in Documentation	Customer Install Value
Web Server Host	WEB_WLHOST	
Weblogic SSL Port Number	WEB_WLSSLPORT	
Weblogic Console Port Number	WLS_ADMIN_PORT	
Web Context Root	WEB_CONTEXT_ROOT	
WebLogic JNDI User ID	WEB_WLSYSUSER	
WebLogic JNDI Password	WEB_WLSYSPASS	
WebLogic Server Name	WEB_WLS_SVRNAME	
Web Server Application Name	WEB_APP	
Deploy Javadocs Module	WEB_DEPLOY_JAVADOCS	
Enable The Unsecured Health Check Service	WEB_ENABLE_HEALTHCHECK	
MDB RunAs User ID	WEB_IWS_MDB_RUNAS_USER	
Super User Ids	WEB_IWS_SUPER_USERS	

Menu Block 4 - Database Configuration

The parameters below and in the worksheet are for the database configuration. Note that if changes are made to any of the database menu option items below, thus potentially connecting to a different schema, a warning will be displayed in the screen next to the actual option that has been changed.

Menu Option	Name Used in Documentation	Customer Install Value
Application Server Database User ID	DBUSER	
Application Server Database Password	DBPASS	
Batch Database User ID	BATCH_DBUSER	
Batch Database Password	BATCH_DBPASS	
Web JDBC DataSource Name	JDBC_NAME	
Database Name	DBNAME	
Database Server	DBSERVER	
Database Port	DBPORT	
ONS Server Configuration	ONSCONFIG	
Database Override Connection String	DB_OVERRIDE_CONNECTION	

Menu Option	Name Used in Documentation	Customer Install Value
Character Based Database	CHAR_BASED_DB	
Oracle Client Character Set NLS_LANG	NLS_LANG	

Menu Block 5 - General Configuration Options

The general configuration options include:

Menu Option	Name Used in Documentation	Customer Install Value
Batch RMI Port	BATCH_RMI_PORT	
RMI Port number for JMX Business	BSN_JMX_RMI_PORT_PERFORMANCE	
RMI Port number for JMX Web	WEB_JMX_RMI_PORT_PERFORMANCE	
JMX Enablement System User ID	BSN_JMX_SYSUSER	
JMX Enablement System Password	BSN_JMX_SYSPASS	
Coherence Cluster Name	COHERENCE_CLUSTER_NAME	
Coherence Cluster Address	COHERENCE_CLUSTER_ADDRESS	
Coherence Cluster Port	COHERENCE_CLUSTER_PORT	
Coherence Cluster Mode	COHERENCE_CLUSTER_MODE	

Menu Block 6 - OUAF TrustStore Options

Refer to the *Oracle Utilities Application Framework Server Administration Guide* for additional details on this configuration.

Starting Oracle Utilities Application Framework V4.4.0.0.0, the keystore and truststore options have been removed from the Menu and defaulted into the following template user exit that is loaded by all the properties files:

templates/FW_spl.properties.keystore.truststore.include

You can still customize those options using the "Centralized Properties Customization" option. Upgrades from Oracle Utilities Application Framework versions below 4.4.0.0.0 will still use the keystore and truststore options recorded in the existing etc/ENVIRON.INI file (Menu options file).

The OUAF truststore configuration is required for IWS.

Menu Option	Name Used in Documentation	Customer Install Value
Import TrustStore Directory	TS_IMPORT_KEYSTORE_FOLDER	

Menu Block 8 - OSB Configuration

The OSB configuration includes:

Menu Option	Name Used in Documentation	Customer Install Value
OSB Home		
OSB Host Server		
OSB Port Number		
OSB SSL Port Number		
OSB Managed Server Port Number		
OSB Managed Server SSL Port Number		
JDBC URL for Database		
OSB Service Table Schema Name		
OSB Service Table Schema Password		
OSB WebLogic User Name		
OSB WebLogic User Password		
Mount Point for OSB Files	/spl/sploutput/osb	

Menu Block 9 - SOA Configuration

The SOA configuration includes:

Menu Option	Name Used in Documentation	Customer Install Value
SOA Home		
SOA Host Server		
SOA Port Number		
SOA SSL Port Number		
SOA Internal URL		

Menu Option	Name Used in Documentation	Customer Install Value
SOA External URL		
JDBC URL for SOA Database		
SOA Service Table Schema Name		
SOA Service Table Schema Password		
SOA WebLogic User Name		
SOA WebLogic User Password		
Specify the Path for XAI/IWS Service	XAIApp/xaiservert	

Menu Block 10 - SOA Configuration Plan (MDM)

The SOA configuration plan (MDF) includes:

Menu Option	Name Used in Documentation	Customer Install Value
MDM Bulk Request Callback URL		
MDM Headend HTTP Connection Timeout	50000	
MDM Headend HTTP Read Timeout	500000	
MDM SOA Request Queue JNDI Name	queue/BulkRequestQueue	
MDM SOA Notify Queue JNDI Name	queue/BulkNotifyQueue	
MDM SOA Command Queue JNDI Name	queue/BulkCommandQueue	
SGG-NMS TestHarness Partition Name	SGG-NMS_Test	

Menu Block 11 - Configuration for DataRaker Integration

The DataRaker Integration configuration includes:

Menu Option	Name Used in Documentation	Customer Install Value
JNDI Name of Destination Queue to publish SGG payloads for DataRaker Integration Tool	DataRakerQueue	
Number of records (SGG Payloads) to accumulate	100	
Max file size for the accumulated (SGG Payloads) file in Kilobytes	524288	
Specify a time which, when exceeded, causes a new outgoing file to be created in seconds	600	
Polling frequency of Staging directory for new files in seconds	60	
Mount point/directory for the accumulated SGG payload file	/spl/sploutput/staging	
Mount Point/directory for the converted XML file to place for DataRaker	/spl/sploutput/int	

Menu Block 16 - SOA Configuration Plan (LG)

The SOA configuration plan (LG) includes:

Menu Option	Name Used in Documentation	Customer Install Value
LG SOA Partition Name	LG	
LG SOA TestHarness Partition Name	LG_Test	
AMI Event Subscriber Output Path	/spl/sploutput/osb/lg-cim-event	
MR_Server endpoint URI		
CD_Server endpoint URI		
CIM_Server endpoint URI		
MeteringServer endpoint URI		

Menu Option	Name Used in Documentation	Customer Install Value
Security policy attached to outbound web service calls to a CIM interface	sgg/d3_cfs_cim_header_client_policy	
Security policy attached to inbound web service calls from a CIM interface	sgg/d3_cim_token_service_policy	
The name of the OWSM policy to use when SOA calls a head end system	oracle/ http_basic_auth_over_ssl_client_policy	
The name of the OWSM policy to use when SOA is called by a head end system	oracle/ http_basic_auth_over_ssl_service_policy	

Menu Block 17 - SOA Configuration Plan (NES)

The SOA configuration plan (NES) includes:

Menu Option	Name Used in Documentation	Customer Install Value
NES endpoint URI		
SOA partition to which the application is installed	Echelon	
Path to the NES EventManager web service on the head end system	CoreServices/EventManager.asmx	
Path to the NES GatewayManager web service	CoreServices/GatewayManager.asmx	
Path to the NES DeviceManager web service on the head end system	CoreServices/DeviceManager.asmx	
Path to the NES SettingManager web service on the head end system	CoreServices/SettingManager.asmx	
Path to the NES UserManager web service on the head end system	CoreServices/UserManager.asmx	
Name of the OWSM policy to use when SOA calls a head end system	oracle/ http_basic_auth_over_ssl_client_policy	
Name of the OWSM policy to use when SOA is called by a head end system	oracle/ http_basic_auth_over_ssl_service_policy	

Menu Block 18 - SOA Configuration Plan (Sensus)

The SOA configuration plan (Sensus) includes:

Menu Option	Name Used in Documentation	Customer Install Value
Sensus SOA TestHarness Partition Name	Sensus_Test	
Sensus SOA Partition Name	Sensus	
MR Server Endpoint URI		
CD Server Endpoint URI		
OD Server Endpoint URI		
Headend Http Read Timeout	500000	
Headend Http Connection Timeout	50000	
The name of the OWSM policy to use when SOA calls a head end system	oracle/ http_basic_auth_over_ssl_client_policy	
The name of the OWSM policy to use when SOA is called by a head end system	oracle/ http_basic_auth_over_ssl_service_policy	

Menu Block 19 - SOA Configuration Plan (SSN)

The SOA configuration plan (Sensus) includes:

Menu Option	Name Used in Documentation	Customer Install Value
SSN SOA Partition Name	SSN	
SOA Weblogic User Name		
SSN SOA Queue JNDI Name	queue/SSNODRQ	
SSN Headend DataAggregation Endpoint URI		
The URL for the SSN 4.7 DataAggregation service (DataAggregation.asmx)	http://127.0.0.1/CoreServices/ DataAggregation.asmx	
The URL for the SSN 4.10 DataAggregation service	https://ssn.ssnsgs.net:3000/amm/ webservice/v2_1/DataAggregat...	
The URL for the SSN 4.14 DataAggregation service	https://ssn.ssnsgs.net:3000/amm/ webservice/v2_5_1/ DataAggregationPort	
The url for the SSN 5.1 DataAggregation service	https://ssn.ssnsgs.net:3000/amm/ webservice/v2_7/DataAggregationPort	

Menu Option	Name Used in Documentation	Customer Install Value
SSN Headend DeviceManager Endpoint URI		
The URL for the SSN 4.7 DeviceManager service (DeviceManager.asmx)	http://127.0.0.1/CoreServices/DeviceManager.asmx	
The URL for the SSN 4.10 DeviceManager service	https://ssn.ssnsgs.net:3000/amm/webservice/v2_1/DeviceManage...	
URL for the SSN 5.1 DeviceManager service	https://ssn.ssnsgs.net:3000/amm/webservice/v2_7/DeviceManagerPort	
SSN Headend DeviceResults Endpoint URI		
The URL for the SSN 4.7 DeviceResults service (DeviceResults.asmx)	http://127.0.0.1/CoreServices/DeviceResults.asmx	
The URL for the SSN 4.10 DeviceResults service	https://ssn.ssnsgs.net:3000/amm/webservice/v2_1/DeviceResult...	
The URL for the SSN 5.1 DeviceResults service	https://ssn.ssnsgs.net:3000/amm/webservice/v2_7/DeviceResults	
SSN Headend JobManager Endpoint URI		
The URL for the SSN 4.7 JobManager service (JobManager.asmx)	http://127.0.0.1/CoreServices/JobManager.asmx	
The URL for the SSN 4.10 JobManager service	https://ssn.ssnsgs.net:3000/amm/webservice/v2_7/JobManagerPort	
The URL for the SSN 5.1 JobManager service	https://ssn.ssnsgs.net:3000/amm/webservice/v2_7/JobManagerPort	
The name of the OWSM policy to use when SOA calls a head end system	oracle/http_basic_auth_over_ssl_client_policy	
The name of the OWSM policy to use when SOA is called by a head end system	oracle/http_basic_auth_over_ssl_service_policy	

Menu Block 20 - SSN JMS Source Destination Bridge Configuration

The SSN JMS Source Destination Bridge configuration includes:

Menu Option	Name Used in Documentation	Customer Install Value
SSN Bridge Destination Name	SSNTestHarnessBridgeDestination	

Menu Option	Name Used in Documentation	Customer Install Value
SSN Bridge Destination Additional Classpath		
SSN Bridge Destination Connection URL		
SSN Bridge Destination Initial Context Factory	weblogic.jndi.WLInitialContextFactory	
SSN Bridge Connection Factory JNDI Name	jms/SSNTestHarnessConnectionFactory	
SSN Bridge Destination Queue JNDI Name	queue/SSNTestSSNODRQ	
SSN Destination Bridge Username		

Menu Block 21 - DG Reference Implementation SOA Configuration

The DG Reference Implementation SOA configuration includes:

Menu Option	Name Used in Documentation	Customer Install Value
DG SOA Partition Name	DG	
MR Server Endpoint URI		
CD Server Endpoint URI		
OD Server Endpoint URI		
Headend Http Read Timeout	500000	
Headend Http Connection Timeout	50000	
DG SOA TestHarness Partition Name	DG_Test	

Menu Block 22 - SOA Configuration Plan (Itron Openway)

The SOA Configuration Plan (Itron Openway) configuration includes:

Menu Option	Name Used in Documentation	Customer Install Value
Itron SOA Partition Name	Itron	
Headend Http Read Timeout	500000	
Headend Http Connection Timeout	50000	

Menu Option	Name Used in Documentation	Customer Install Value
DataSubscriberService Output Path		
ExceptionSubscriberService Output Path		
Itron Headend DataService Endpoint URI		
Itron Headend DiagnosticService Endpoint URI		
Itron Headend UtilService Endpoint URI		
Itron Headend ControlService Endpoint URI		
Itron Headend ProvisioningService Endpoint URI		
Itron Headend ProvisioningService370 Endpoint URI		
Itron Headend ControlService370 Endpoint URI:		
Itron SOA TestHarness Partition Name	Itron_Test	
The name of the OWSM policy to use when SOA calls a head end system	oracle/ http_basic_auth_over_ssl_client_policy	
The name of the OWSM policy to use when SOA is called by a head end system	oracle/ http_basic_auth_over_ssl_service_policy	

Advanced Menu Options

The advanced menu options are not available during installation. These options can be accessed after installation using the following commands:

Linux/UNIX:

```
$SPLEBASE/bin/configureEnv.sh -a
```

Windows:

```
%SPLEBASE%\bin\configureEnv.cmd -a
```

Menu Block 50 - WebLogic Advanced Environment Miscellaneous Configuration

WebLogic advanced environment miscellaneous configurations include:

Menu Option	Name Used in Documentation	Customer Value Install
OUAF DBMS Scheduler User	OUAF_DBMS_SCHEDULER_USER	
WebLogic ThreadPoolWorker Enabled	WLS_THEADPOOLWORKERENABLED	
Online JVM Batch Server Enabled	BATCHENABLED	
Online JVM Batch Number of Threads	BATCHTHREADS	
Online JVM Batch Scheduler Daemon Enabled	BATCHDAEMON	
Enable Batch Edit Functionality	BATCHEDIT_ENABLED	
Batch Online Log Directory	BATCH_ONLINE_LOG_DIR	
JDBC Read Timeout	JDBC_TIMEOUT	
Enable JMS Global Flush for Batch	ENABLE_JMS_GLOBAL_FLUSH	
Add UsernameToken.xml	ADD_USERNAMETOKEN_XML	
IWS deployment target	WLS_CLUSTER_NAME	
Web Admin Server Host	WEB_ADMIN_SERVER	
Split File Size in MB	TEMPSTORAGE_SPLITFILESIZE	
GIS Service Running on the same Web Server	GIS	
GIS Service URL	GIS_URL	
GIS WebLogic System User ID	GIS_WLSYSUSER	
GIS WebLogic System Password	GIS_WLSYSPASS	
Online Display Software Home	ONLINE_DISPLAY_HOME	
Max Queries To Hold In Cache Across All Threads	XQUERIES_TO_CACHE	
Seconds Timeout Flush Cache Completely	XQUERY_CACHE_FLUSH_TIMEOUT	
Malware Scan Host		
Malware Scan Port		

Menu Option	Name Used in Documentation	Customer Value Install
Malware Scan Timeout (Seconds)		

Menu Block 51 - WebLogic Advanced Environment Memory Configuration

WebLogic advanced environment memory configurations include:

Menu Option	Name Used in Documentation	Customer Install Value
Global JVM Arguments	GLOBAL_JVMARGS	
Ant Min Heap Size	ANT_OPT_MIN	
Ant Max Heap Size	ANT_OPT_MAX	
Ant Additional Options	ANT_ADDITIONAL_OPT	
Thread Pool Worker Java Min Heap Size	BATCH_MEMORY_OPT_MIN	
Thread Pool Worker Java Max Heap Size	BATCH_MEMORY_OPT_MAX	
Thread Pool Worker Additional Options	BATCH_MEMORY_ ADDITIONAL_OPT	

Menu Block 52 - Advanced Web Application Configuration

Advanced web application configurations include:

Menu Option	Name Used in Documentation	Customer Install Value
Web Application Cache Settings	WEB_L2_CACHE_MODE	
Web Server Port Number	WEB_WLPORT	
CSRF Protection For REST Services	CSRF_PROTECTION	
OWSM Protection For REST Services	OWSM_PROTECTION_FOR_ REST_SERVICES	
Domain Home Location	WLS_DOMAIN_HOME	
Batch Cluster URL	WEB_BATCH_CLUSTER_URL	
Strip HTML Comments	STRIP_HTML_COMMENTS	
Authentication Login Page Type	WEB_WLAUTHMETHOD	

Menu Option	Name Used in Documentation	Customer Install Value
Web Form Login Page	WEB_FORM_LOGIN_PAGE	
Web Form Login Error Page	WEB_FORM_LOGIN_ERROR_ PAGE	
Javadocs Login Page	WEB_JAVADOCS_FORM_LOGIN _PAGE	
Javadocs Form Login Error Page	WEB_JAVADOCS_FORM_LOGIN _ERROR_PAGE	
Help Form Login Page	WEB_HELP_FORM_LOGIN_ PAGE	
Help Form Login Error Page	WEB_HELP_FORM_LOGIN_ ERROR_PAGE	
Web Security Role	WEB_SECURITY_NAME	
Web Principal Name	WEB_PRINCIPAL_NAME	
Javadocs Security Role	WEB_JAVADOCS_ROLE_NAME	
Javadocs Principal Name	WEB_JAVADOCS_PRINCIPAL_N AME	
This is a development environment	WEB_ISDEVELOPMENT	
Preload All Pages on Startup	WEB_PRELOADALL	
Maximum Age of a Cache Entry for Text	WEB_MAXAGE	
Maximum Age of a Cache Entry for Images	WEB_MAXAGEI	
JSP Recompile Interval (s)	WEB_ WLPAGECHECKSECONDS	
Enable Strict Transport Security		
Strict Transport Security Max Age	HSTS_MAX_AGE	
Strict Transport Security Include Subdomains	HSTS_SUBDOMAINS	
Strict Transport Security Preload	HSTS_PRELOAD	
User Interface Style	USER_INTERFACE_STYLE	
Oracle Guided Learning Id	ORACLE_GUIDED_LEARNING _ID	

Menu Block 54 - WebLogic Diagnostics

WebLogic diagnostic options include:

Menu Option	Name Used in Documentation	Customer Install Value
Diagnostic Context Enabled	WLS_DIAGNOSTIC_CONTEXT_ ENABLED	

Menu Block 55 - URI, File and URL Related Options

URI, File and URL Related Options include:

Menu Option	Name Used in Documentation	Customer Install Value
Enable CORS For Embedded UI	ENABLE_CORS	
Allowed Frame Ancestors Max Number	CORS_ALLOWED_FRAME_ANC ESTORS_MAX_NUMBER	
URI For Variable CSP_FRAME_ANS_HOST1	CORS_CSP_FRAME_ANS_ HOST1	
URI For Variable CSP_FRAME_ANS_HOST2	CORS_CSP_FRAME_ANS_ HOST2	
Custom URL For CSP img-src	CSP_URL_IMG_SRC	
Custom URL For CSP script-src	CSP_URL_SCRIPT_SRC	
Custom URL For CSP style-src	CSP_STYLE_SRC	
Custom URL For CSP font-src	CSP_FONT_SRC	
Custom URL For CSP connect-src	CSP_CONNECT_SRC	
URI For Variable FA_DOMAIN	CORS_FA_DOMAIN	
URI For Variable ALM_DOMAIN	CORS_ALM_DOMAIN	
Restriction URLs Enable	CLOUD_RESTRICTION_URLS_E NABLE	
Custom SQL Security	CUSTOM_SQL_SECURITY	
White List Full Path	CLOUD_WHITE_LIST_PATH	
Custom White List Full Path	CLOUD_CUSTOM_WHITE_LIST _PATH	
Substitution Variable List File Location	CLOUD_SUBSTITUTION_VARIA BLE_LIST_FILE_LOCATION	
Directory For Variable F1_CMA_FILES	CLOUD_LOCATION_F1_MIGR_ ASSISTANT_FILES	
URI For Variable F1_OAUTH2_URI	CLOUD_LOCATION_F1_OAUT H2_URI	

Menu Option	Name Used in Documentation	Customer Install Value
URI for Variable F1_BASE_REST_URL	CLOUD_LOCATION_F1_BASE_REST_URL	
URI for Variable F1_OPEN_API_BASE_URL	CLOUD_LOCATION_F1_OPEN_API_BASE_URL	
URI For Variable F1_BASE_WEB_URI	CLOUD_LOCATION_F1_BASE_WEB_URI	
URI For Variable F1_BASE_IWS_URI	CLOUD_LOCATION_F1_BASE_IWS_URI	
Consolidated Logfile Full Path	CONSOLIDATED_LOG_FILE_PATH	
Temporary File Location	TMP_FILE_LOCATION	

Menu Block 56 - Mobile Security Configuration

Note: The OUAF Mobile is not supported anymore, but the menu options still exist. They will be removed from the menu as well.

The Mobile Security configurations include:

Menu Option	Name Used in Documentation	Customer Install Value
Enable Mobile Application	MOBILE_ENABLED	
Deploy Only Mobile Web Application	MOBILE_APP_ONLY	
Mobile Application Directory	MOBILE_APPDIR	
Allow Self Signed SSL Certificates	ALLOW_SELFSIGNED_SSL	
Force Http Connection	FORCE_HTTP	
Web Mobile Form Login Page	WEB_MOBILE_FORM_LOGIN_PAGE	
Web Mobile Form Login Error Page	WEB_MOBILE_FORM_LOGIN_ERROR_PAGE	

Menu Block 57 - REST Settings for JMX

REST settings for JMX configurations include:

Menu Option	Name Used in Documentation	Customer Install Value
Enable/Disable REST Service For The JMX	JMX_REST_SERVICE_FLAG	

Menu Option	Name Used in Documentation	Customer Install Value
Hostname To Run The REST Server	JMX_REST_SERVICE_HOST	
Batch Port For REST Server	JMX_REST_PORT_BATCH	
Web Port For REST Server	JMX_REST_PORT_WEB	
Business Server Port For REST Server	JMX_REST_PORT_SERVICE	
Server Context	JMX_REST_CONTEXT	
SSL Flag	JMX_HTTPSSL_FLAG	
Keystore File Path	JMX_HTTPSSL_KEYSTORE_ FILE	
Keystore Type	JMX_HTTPSSL_KEYSTORE_ TYPE	
Keystore Passphrase	JMX_HTTPSSL_KEYSTORE_ PASSPHRASE	
Keypair Passphrase	JMX_HTTPSSL_KEYPAIR_ PASSPHRASE	
Trust Store File Path	JMX_HTTPSSL_TRUSTSTORE_ FILE	
Truststore Type	JMX_HTTPSSL_TRUSTSTORE_ TYPE	
Truststore Passphrase	JMX_HTTPSSL_TRUSTSTORE_ PASSPHRASE	

Menu Block 60 - Advanced Configurations for OSB

The advanced configurations for OSB include:

Menu Option	Name Used in Documentation	Customer Install Value
Enable OSB SSL Port	false	
OSB Trust Keystore Type	Demo	
OSB Trust Keystore File Type	JKS	
OSB Trust Keystore File		

Menu Block 61 - Advanced Memory Configurations for SOA

The advanced memory configurations for SOA include:

Menu Option	Name Used in Documentation	Customer Install Value
SOA Initial Heap Size	1024	
SOA Maximum Heap Size	2048	
SOA Minimum Perm Size	512	
SOA Maximum Perm Size	1024	
SOA Application Additional Options		
The name of the OWSM policy to use when SOA calls another SOA service	oracle/ http_basic_auth_over_ssl_client_ policy	
The name of the OWSM policy to use when SOA is called by another SOA service	oracle/ http_basic_auth_over_ssl_service_ policy	
The name of the OWSM policy to use when SOA calls an OUAF service	oracle/ wss_http_token_over_ssl_client_ policy	

Menu Block 62 - Advanced Memory Configurations for OSB

The advanced memory configurations for OSB include:

Menu Option	Name Used in Documentation	Customer Install Value
OSB Initial Heap Size	512	
OSB Maximum Heap Size	1024	
OSB Minimum Perm Size	512	
OSB Maximum Perm Size	1024	
OSB Application Additional Options		

Menu Block 63 - Data Migration

The data migration configurations include:

Menu Option	Name Used in Documentation	Customer Install Value
Enable Data Migration	FALSE	

Menu Option	Name Used in Documentation	Customer Install Value
Data Migration Database User		
Data Migration Database Password		

Menu Block 64 - Advanced Configurations for SOA

The advanced configurations for SOA include:

Menu Option	Name Used in Documentation	Customer Install Value
Enable SOA SSL Port	false	
SOA Trust Keystore Type	Demo	
SOA Trust Keystore File Type	JKS	
SOA Trust Keystore File		

Menu Block 70 - SSN SOA TestHarness Configurations

The SSN SOA TestHarness configurations include:

Menu Option	Name Used in Documentation	Customer Install Value
SSN TestHarness SOA Host Server	slc11cds.us.oracle.com	
SSN TestHarness SOA Port Number	8920	
SSN SOA TestHarness Partition Name	SSN_Test	
SSN SOA TestHarness Queue JNDI Name	queue/SSNTestSSNODRQ	

Chapter 5

Installing Application Server Prerequisite Software

This chapter describes the software that needs to be installed for each of the supported operating system and application server combinations.

- AIX Application Server
- Oracle Linux 8.x and Red Hat Linux 8.x Application Server
- Solaris 11.4+ Application Server
- Windows 2012 Application Server
- Additional Prerequisite Software Information

AIX Application Server

This section describes the software requirements for operating the application using the AIX application server.

Supported Application Servers

Operating System	Chipsets	Application Server
AIX 7.2 TL5+(64-bit)	POWER 64-bit	WebLogic 12.2.1.4 (64-bit)

Web/Application Server Tier

AIX 7.2 TL5+ Operating System Running on Power5 and Power6 Architecture

UNIX Administrator Userid

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
CCB Administrator User ID	cissys	
CCB User Group	cisusr	

> **Note:** It is recommended that you change the default values for security reasons.

Throughout this document the administrator user ID is often referred to as the "cissys" user ID. You should substitute that with the customer defined user ID when not using the default value. After the initial install, the software should always be managed using that user ID.

By default, "cissys" is the only user ID that can be used to access the installed files.

1. Create the "cisusr" user group.
2. Create the "cissys" user. The primary group is "cisusr".
3. Set the primary shell for **cissys** user to **Korn Shell**.

The shell scripts use ">" to overwrite shell functionality. By default, your operating system may be configured to not allow this functionality in the Users shell.

To avoid file access permission problems while executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions

available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 077 to ensure files created during normal operation have the correct permissions.

Replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

You must use the same user for starting and stopping a process. For example, if cissys is used to start the application server, the use cissys to stop it as well.

Oracle Database Client 19c - Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

IBM Java Software Development Kit V8.0 (64-bit)

Installation of Java as a prerequisite is only needed if you are using Oracle WebLogic as a Web application server.

At the time of release, AIX Java packages could be obtained from:

https://www.ibm.com/support/pages/java-sdk-aix

The web server requires the 64-bit Java platform in order to function. The main prerequisite for the web server is the version of Java mentioned above.

For the Administrator user ID (cissys), ensure that the environment variable JAVA_HOME is set up, and that “java” can be found in cissys’ PATH variable.

Hibernate 4.1.0

You must install Hibernate 4.1.0 before installing Oracle Utilities Digital Asset Management. For instructions to install Hibernate 4.1.0, refer to the Installing Hibernate 4.1.0 section.

Oracle WebLogic Server 12.2.1.4 (64-bit)

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 12.2.1.4.

  Note: With Oracle Utilities Application Framework V4.5.0.1.1 a WebLogic native installation is required. Refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Application Framework (Doc ID 2413918.1)* document on My Oracle Support.

Oracle Linux 8.x and Red Hat Linux 8.x Application Server

This section describes the software requirements for operating the application using the Oracle Linux or Red Hat Linux application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Oracle Linux 8.x (64-bit) Red Hat Enterprise Linux 8.x (64-bit)	x86_64	Oracle WebLogic 12.2.1.4 (64-bit)

Web/Application Server Tier

Oracle Enterprise Linux 8.x or Red Hat Enterprise Linux 8.x Operating System Running on x86_64 64-bit Architecture

UNIX Administrator UserID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
DAM Administrator User ID	cissys	
DAM User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user ID is often referred to as the "cissys" user ID. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create the 'cisusr' user group.
2. Create the 'cissys' user. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.

The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Security Configuration

Various options exists to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 077 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete, and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

You must use the same user for starting and stopping a process. For example, if cissys is used to start the application server, the use cissys to stop it as well.

Oracle Database Client 19c - Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit 1.8.x or Later (64-Bit)

At the time of release, Oracle Java packages could be obtained from:

http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the user ID cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0

You must install Hibernate 4.1.0 before installing Oracle Utilities Digital Asset Management. For instructions to install Hibernate 4.1.0, refer to the Installing Hibernate 4.1.0 section.

Oracle WebLogic Server 12c Release 2 (12.2.1.4) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 12.2.1.4.

  Note: If you plan on using the Oracle Utilities Application Framework in native mode within Oracle WebLogic (as opposed to embedded mode), refer to *Native Installation Oracle Utilities Application Framework* (Doc ID: 1544969.1) on My Oracle Support.

Solaris 11.4+ Application Server

This section describes the software requirements for operating the application using the Sun Solaris 11 application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Solaris 11.4+ (64-bit)	SPARC	Oracle WebLogic 12.2.1.4 (64-bit) version

Web/Application Server Tier

Solaris 11.4+ Operating System Running on SPARC-based 64-bit Architecture

UNIX Administrator UserID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Value
CCB Administrator User ID	cissys	
CCB User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user ID is often referred to as the "cissys" user ID. You should substitute that with the customer defined user ID when not using the default value. After the initial install, the software should always be managed using that user ID.

By default, "cissys" is the only user ID that can be used to access the installed files.

1. Create the "cisusr" user group.
2. Create the "cissys" user. The primary group is "cisusr".
3. Set the primary shell for **cissys** user to **Korn Shell**.

The shell scripts use ">" to overwrite shell functionality. By default, your operating system may be configured to not allow this functionality in the Users shell.

To avoid file access permission problems while executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 077 to ensure files created during normal operation have the correct permissions.

Replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

You must use the same user for starting and stopping a process. For example, if cissys is used to start the application server, the use cissys to stop it as well.

Oracle Database Client 19c - Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Install the /usr/ucb/ps command

Installing the /usr/ucp/ps command is a prerequisite for Solaris platforms below version 11.4. It helps to execute the following command successfully.

```
spl.sh -b stop (stop the Threadpool Worker)
```

Oracle Java Development Kit V8.0 Update 131 or Later (64-Bit)

The Oracle Java packages can be obtained from:

https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the user ID cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0

You must install Hibernate 4.1.0 before installing Oracle Utilities Digital Asset Management. For instructions to install Hibernate 4.1.0, refer to the Installing Hibernate 4.1.0 section.

Oracle WebLogic Server 12.2.1.4 (64-bit)

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 12.2.1.4.

  Note: With Oracle Utilities Application Framework V4.5.0.1.1 a WebLogic native installation is required. Refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Application Framework (Doc ID 2413918.1)* document on My Oracle Support.

Windows 2012 Application Server

This section describes the software requirements for operating the application using the Windows application server.

Note: Windows Server is not supported for Production environments. Wherever Windows Server is referenced within this guide, it is supported for Test or Development environments only.

Supported Application Servers

Operating System	Chipsets	Application Server
Window Server 2012	x86_64	Oracle WebLogic 12.2.1.4 (64-bit) version

Web/Application Server Tier

File and Directory Names Limitations

File and directory names cannot contain spaces. Due to the limitations in Windows, fully qualified filenames cannot exceed 2047 characters.

Oracle Database Client 19c - Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit V8.0 Update 131 or Later (64-Bit)

At the time of release, Oracle Java packages could be obtained from:

https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the cissys user ID, make sure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0

You must install Hibernate 4.1.0 before installing Oracle Utilities Digital Asset Management. For installation instructions, refer to the Installing Hibernate 4.1.0 section.

Oracle WebLogic Server 12.2.1.4 (64-bit)

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 12.2.1.4.

  Note: With Oracle Utilities Application Framework V4.5.0.1.1 a WebLogic native installation is required. Refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Application Framework (Doc ID 2413918.1)* document on My Oracle Support.

Additional Prerequisite Software Information

This section outlines additional information related to installing the prerequisite software, including:

- Setting Up and Using the Additional JAR Directory
- Special Note to Upgrade from a WebLogic 12.1.3.x Environment

Setting Up and Using the Additional JAR Directory

The additional JAR directory must be populated if the Web Application Server Home directory is not set.

For example: The environment is for batch only and the server has no WebLogic installed. In this scenario, the Additional JAR Directory must be created prior to the installation and the following list of WebLogic JARs should be copied to that directory (full path from the actual WebLogic location which must be installed in the web server).

```
<Web Application Server Home Directory>/server/lib/
wlthint3client.jar
<Web Application Server Home Directory>/../oracle_common/modules/
org.codehaus.woodstox.stax2-api.jar
<Web Application Server Home Directory>/../oracle_common/modules/
org.glassfish.jersey.core.jersey-client.jar
<Web Application Server Home Directory>/../oracle_common/modules/
org.glassfish.jersey.core.jersey-common.jar
```

```
<Web Application Server Home Directory>/../oracle_common/modules/
org.glassfish.jersey.bundles.repackaged.jersey-guava.jar
<Web Application Server Home Directory>/../oracle_common/modules/
org.glassfish.jersey.core.jersey-server.jar
<Web Application Server Home Directory>/../oracle_common/modules/
org.glassfish.jersey.media.jersey-media-jaxb.jar
<Web Application Server Home Directory>/../oracle_common/modules/
org.glassfish.jersey.media.jersey-media-multipart.jar
if WebLocic 12.2.1.[0-2].0:
<Web Application Server Home Directory>/../oracle_common/modules/
org.codehaus.woodstox.woodstox-core-asl.jar
if WebLocic is not 12.2.1.[0-2].0:
<Web Application Server Home Directory>/../oracle_common/modules/
com.fasterxml.woodstox.woodstox-core.jar
```

If the Additional JAR directory is configured, the initialSetup process will pull those JARs from that directory. If it is not configured, the initialSetup process will pull those JARs from the Web Application Server Home directory.

Special Note to Upgrade from a WebLogic 12.1.3.x Environment

If you are upgrading from an environment which is using WebLogic 12.1.3.x, make sure to follow the steps below prior to the installation:

1. Install Oracle WebLogic Server (Fusion Middleware Infrastructure) 12.2.1.4.
2. Install Oracle Java SE Development Kit 1.8.0_261 (if not installed yet).
3. Shutdown the application server environment.
4. Take a full backup of the application:

   ```
   $SPLEBASE
   ```

5. Set the environment as follows:

   ```
   splenviron.sh -e <ENV NAME>
   ```

6. Reconfigure the environment to point to the new WebLogic and Java (if upgraded Java as well):

   Execute:

   ```
   configureEnv.sh -i
   ```

   Update:

   ```
   "Web Java Home Directory" and "Web Application Server Home
   Directory"
   Type <P> to process (no need to rerun initialSetup.sh).
   ```

7. Set the environment again.

   ```
   splenviron.sh -e <ENV NAME>
   ```

8. Upgrade the Oracle Utilities Application Framework to V4.5.0.1.1.

   ```
   install.sh -u
   ```

Chapter 6

Installing the Application Server Component of Oracle Utilities Application Framework

Installing Oracle Utilities Application Framework ("the framework") is the prerequisite and foundation for installing a framework-based application such as Oracle Utilities Digital Asset Management. This chapter describes the process to install Oracle Utilities Application Framework, including:

Installation Overview

The installation packages for your Oracle Utilities Application Framework-based application must be downloaded from the Oracle Software Delivery Cloud.

Application server installations are new, you cannot upgrade an existing application server. The database installation can be an initial install or an upgrade install.

Before you proceed with the installation process:

1. Complete the database installation/upgrade process. Refer to the *Oracle Utilities Digital Asset Management Database Administrator's Guide.*
2. Make sure that you have installed all the required third-party software as described in Installing Application Server Prerequisite Software.

Once the Oracle Utilities Application Framework installation is successfully completed and the framework application environment is created, Oracle Utilities Digital Asset Management can be installed on top of the framework environment.

You can download the installation packages from the Oracle Software Delivery Cloud.

This section describes how to install a working Oracle Utilities Application Framework Server, which can then be further configured manually to allow for production performance levels.

Application server installation packages delivered for this version are multi-platform and are ready to install on any supported platform (as described in).

Pre-Installation Tasks

Hardware and Software Version Prerequisites

Supported Platforms and Hardware Requirements contains all of the available platforms that are required with this release of the product.

Database Installation

Verify that the database has been installed and is operational. See *Oracle Utilities Digital Asset Management Database Administrator's Guide* for more information.

Installation Prerequisites

Installing Application Server Prerequisite Software describes all preparations that need to be done on the server prior to installing the application server. Please read carefully the server setup requirements and make sure that all prerequisite software is installed and that all required environment variables are set. Correct server setup and proper environment variable settings are an essential prerequisite for successful environment installation.

System Architecture Overview

Oracle Utilities Application Framework V4.5.0.1.1 is a decoupled system architecture involving a business service application tier and a web application tier. Typically both will run on the same server, but the design does allow each tier to be installed on separate servers.

The design implements a stateless session bean (EJB technology, under Java EE 7), to provide remote access to service invocations. The root web app and XAI web apps can be configured to access service processing locally (as in previous versions), or to make a remote EJB call to perform the service request. In the latter case, the served containers, effectively, run as very thin servlet wrappers around the remote call.

For all supported application servers except for WebLogic expanded configuration (SDK environment), the deployment is in the form of two Enterprise Archive (ear) Files: SPLService.ear and SPLWeb.ear. Web Archive (war) files are created during the installation process but are not deployed.

Copying and Decompressing Install Media

To copy and decompress the Oracle Utilities Digital Asset Management installation media:

1. Download Oracle Utilities Digital Asset Management V2.0.0.1.1 from Oracle Software Delivery Cloud (eDelivery) and extract the following:
    - Oracle Utilities Application Framework V4.5.0.1.1 Application Installation Media
    - Oracle Utilities Application Framework V4.5.0.1.1 Single Fix Prerequisite Rollup for Oracle Utilities Digital Asset Management V2.0.0.1.1 (if there is any)
    - Oracle Utilities Customer Care and Billing V2.9.0.1.1 for Multiplatform
    - Oracle Utilities Customer Care and Billing V2.9.0.1.1 Single Fix Prerequisite Rollup for Oracle Utilities Digital Asset Management V2.0.0.1.1 (if there is any)
    - Oracle Utilities Meter Data Management V2.5.0.1.1 Multiplatform
    - Oracle Utilities Work and Asset Management V2.4.0.1.1 Multiplatform
    - Oracle Utilities Digital Asset Management V2.0.0.1.1 for Multiplatform
    - Oracle Utilities Digital Asset Management V2.0.0.1.1 Single Fix Prerequisite Rollup for Oracle Utilities Digital Asset Management V2.0.0.1.1 (if there is any)
2. Copy the following Oracle Utilities Digital Asset Management files to your local machine:
    - FW-V4.5.0.1.1-Multiplatform
    - C2M-V2.9.0.1.1-FW-PREREQ-MultiPlatform (if there is any)
    - CCB-V2.9.0.1.1-Multiplatform
    - CCB-V2.9.0.1.1-Rollup-MultiPlatform (if there is any)
    - MDM-V2.5.0.1.1-Multiplatform
    - Oracle Utilities Work and Asset Management V2.4.0.1.1 Multiplatform
    - C2M-V2.9.0.1.1-Multiplatform

- C2M-V2.9.0.1.1-Rollup-MultiPlatform (if there is any)

The Oracle Utilities Application Framework V4.5.0.1.1 installation file is delivered in jar format for both UNIX and Windows platforms.

If you are planning to install multiple Oracle Utilities Application Framework V4.5.0.1.1 environments operated by different Oracle Utilities administrator user IDs, you must complete each of the following installation steps for each administrator user ID.

To copy and decompress the install media:

1. Login to the application server host with the Oracle Utilities Application Framework administrator user ID.
2. Download the Oracle Utilities Application Framework V4.5.0.1.1 Multiplatform from Oracle Software Delivery Cloud.
3. Create a temporary directory such as c:\ouaf\temp or /ouaf/temp. (Referred to below as <TEMPDIR>.)

   Note: This directory must be located outside any current or other 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. Copy the downloaded application zip file to the <TEMPDIR>.
5. Decompress the file:

```
cd <TEMPDIR>
unzip -q <INSTALL MEDIA ZIP FILE NAME>
```

A sub-directory with name "FW-V4.5.0.1.1" is created. It contains the installation software for the Oracle Utilities framework application server.

Set Permissions for the cistab File in UNIX

Every Oracle Utilities Application Framework 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 (cissys), 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>/FW-V4.5.0.1.1 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 Application Framework 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 Application Framework administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Framework 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.

Installing Oracle Utilities Application Framework

This section outlines the steps for installing the Application Framework. It includes the following:

- Installation Process (Brief Description)
- Installation Process (Detailed Description)
- Detailed Description for Configuring the OUAF Keystore

Installation Process (Brief Description)

1. Login as the Oracle Utilities Framework administrator (the default is cissys on UNIX) or as a user with Administrator privileges (on Windows).
2. Configure your application server and any third-party software required for your platform, as outlined in Installing Application Server Prerequisite Software.
3. Change directory to the *<TEMPDIR>*/FW-V4.5.0.1.1 directory.
4. Set the following path:

   ```
   export PATH=/<JAVA_HOME>/bin:/<JAVA_HOME>/lib:$PATH
   ```

   Note: The above command is only applicable on a Unix platform. <JAVA_HOME> is the location where the JDK has been installed.
5. Start the application installation utility by executing the appropriate script:

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```
6. Follow the messages and instructions that are produced by the application installation utility. Use the completed worksheets in Planning the Installation to assist you.
7. Installation of Oracle Utilities Framework Application Server is complete if no errors occurred during installation.

Installation Process (Detailed Description)

1. Login to the host server as Oracle Utilities Application Framework administrator.

   Login as cissys (on UNIX) or as a user with Administrator privileges (on Windows).
2. Configure application server and third-party software.

   Complete all steps outlined in Installing Application Server Prerequisite Software. You will need to obtain specific information for the install.

3. Change directory to the *<TEMPDIR>*/FW-V4.5.0.1.1 directory and start the application installation utility by executing the appropriate script:

   Unix:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

4. On the Environment Installation Options menu, select item 1: Environment ID, Roles, Third Party Software Configuration.

   Use the completed Environment ID, Roles, Third Party Software Configuration worksheet in Installation Menu Functionality Overview to complete this step.

5. Select menu item 2: Keystore Options.

   Use the completed Keystore Options Worksheet to complete this step. See Installation Menu Functionality Overview.

6. Select menu item 50: Environment Installation Options.

   Use the completed Environment Installation Options Worksheet to complete this step. See Installation Menu Functionality Overview.

   Note: You must create the directory for output (the Log Mount Point). The installation process fails if this directory does not exist.

   - Specify the environment mount point, log files mount point, name and the environment directory names for a new installation on a menu screen.
   - Specify the web application server type your environment will run with (the default will be WebLogic).
   - Specify if you want to install the application viewer module.
   - Specify if you want to install the demo certificate generation scripts.
   - Specify if you want to install sample custom code.
   - Enter P to accept the selected options.
   - During this step, the specification of a new environment is checked for validity against /etc/cistab and the permissions on mount points and directories.

7. Configure the environment parameters.

   - During this step you will configure environment parameters such as web server hosts and ports, database name, and user ID.
   - The application installation utility shows default values for some configuration options.
   - Use the completed Environment Configuration Worksheet to assist you.

   Note: Some options require a value for a successful install. It is important to provide these values as described in the previous sections.

   - When you are done with the parameters setup, proceed with the option P.
   - All of the options will be written in the following File: $ SPLEBASE/etc/ENVIRON.INI.

- You will be warned if you did not edit a section. You may proceed if you want to keep the default settings.
- The application installation utility copies the installation media to a new environment.
- The application installation utility generates environment configuration parameters.

  The application installation utility automatically executes the script initialSetup.sh (on UNIX) or initialSetup.cmd (on Windows), located in $SPLEBASE/bin (%SPLEBASE%\bin on Windows) directory. This script populates different application template configuration files with the new environment variables values and completes the rest of the installation steps.

8. Set up environment variables.

   Once the ENVIRON.INI file is created and contains the correct environment parameters, the application installation utility starts a sub shell to the current process by executing the splenviron.sh (on UNIX) or splenviron.cmd (on Windows) script, located in $SPLEBASE/bin (or *%SPLEBSE%\etc for Windows)* directory. This script sets up all the necessary environment variables and shell settings for the application server to function correctly.

   From this point, a number of environment variables have been set up. Some key ones are:

   - $PATH - an adjustment to $PATH is made so that all of the environment scripts and objects will be in the path.
   - $SPLEBASE (%SPLEBASE%) - stands for <SPLDIR>/<SPLENVIRON> directory
   - $SPLOUTPUT (%SPLOUTPUT%) - stands for <SPLDIROUT>/<SPLENVIRON> directory
   - $SPLENVIRON (%SPLENVIRON%) - environment name

For future operations or any post installation steps, you need to first execute the following command to setup your session to the new environment:

UNIX:

```
$SPLEBASE/bin/splenviron.sh -e <SPLENVIRON>
```

Windows:

```
%SPLEBASE%\bin\splenviron.cmd -e <SPLENVIRON>
```

You need to execute this script each time you want to be connected to the specific environment before performing manual operations such as shutdown, startup or performing an additional application product installation.

When you have finished the install process, your current online session will be connected to the new environment.

Refer to Planning the Installation for settings and configuration.

Detailed Description for Configuring the OUAF Keystore

The following section details the steps required to configure the OUAF keystore.

OUAF Keystore

The OUAF Keystore feature secures sensitive data such as passwords and prevents tampering of long login IDs via direct updates to the database. The application server uses an external keystore to store keys for system password and other sensitive system data including user "hashes" that are used to verify the validity of email long login IDs. In order to run the application correctly, the keystore used by the application server must match the data encrypted in the database. If they do not match, the application will not be able to decrypt passwords correct, nor will users be able to log on due to a mismatch of user security hashes.

To help manage the keystore and ensure that the keystore matches the database-encypted data, there is a system check at startup of the application that display warning messages when the system detects that the keystore in use does not match the encrypted data in the database. Thus after any keystore operation, fresh installation of the application, or reconfiguration to point to a different database, the keystore will need to be synchronized with the database. Synchronization of the keystore happens any time ChangeCryptographyKey or ResetCryptography key programs are run.

After running the cryptography programs, it is necessary to reset the database credentials used by the database patching utility with the nvokeDBUpdatePatch.sh|cmd script.

> **Note**: The database utility ORADBI does not require the keystore files. Refer to the database documentation for more details.

The following lists the common administrative activities related to the keystore.

Determining Keystore in Use

You can determine if an existing application server uses a keystore through the existence of the files in the following location. (Use the ls -a option in Unix systems to list all files):

```
<SPLEBASE>/ks/.ouaf_keystore
<SPLEBASE>/ks/.ouaf_storepass
```

If there are no files in this location, then the system is not using a keystore. Starting from V4.2.0.2.0, a keystore should be in use.

Configuring the Keystore Options

If you would like to customize the keystore options, the Install Menu includes a section for keystore options as shown below. You can access the Install Menu later through (execute configureEnv.sh|cmd -i):

```
2. Keystore options
       Import Keystore Directory:
       Store Type: JCEKS
       Alias: ouaf.system
       Alias Key Algorithm: AES
       Alias Key Size: 128
       HMAC Alias: ouaf.system.hmac
       Padding: PKCS5Padding
       Mode: CBC
```

Importing an Existing Keystore

This will import a keystore from an existing environment to the current one. Use this when upgrading from 4.2.0.2.0 or when reconfiguring environments using different keystores and you want them to point to the same database schema (e.g. you want to have more than one application server pointing to the same database schema).

Follow these steps:

1. Enter the keystore options from the the install menu or from the configureEnv.sh|cmd –i as above.
2. Run initialSetup.sh|cmd –s so that the keystore is imported and appropriate property files are updated.
3. Run configureEnv.sh|cmd and re-enter the passwords so they are encrypted with the imported keystore.
4. Run initialSetup.sh|cmd again to update property files with the encrypted data.
5. Run the following:

   ```
   perl $SPLEBASE/bin/run_java_standalone.plx
   com.splwg.shared.common.ChangeCryptographyKey -l -h
   ```

6. Run $SPLEBASE/bin/nvokeDBUpdatePatch.sh|cmd and follow the prompts.

   You can use the –h option to obtain help.

Upgrading from the Legacy Keystore

This process:

- Synchronizes the keystore to the database
- Regenerates the user hashes
- Re-encrypts any passwords (from the legacy-encrypted passwords) using the current keystore.
- Is used only when upgrading from a framework prior to version 4.2.0.2.0.

Follow these steps:

1. Run the following command:

   ```
   perl $SPLEBASE/bin/run_java_standalone.plx
   com.splwg.shared.common.ChangeCryptographyKey -l -h
   ```

2. Run $SPLEBASE/bin/nvokeDBUpdatePatch.sh|cmd and follow the prompts. You can use the –h option to obtain help.

Forcing the Environment to Use the Current Keystore

This process will:

- Prompt for and encrypt application server-stored passwords
- Synchronize the keystore to the database
- Regenerate the user hashes
- Invalidate any database-stored passwords
- Use this option when, for example, a keystore has been lost, and thus, the system will not be able to decypt the passwords stored in the configuration files or database. All passwords will need to be reentered.

Follow these steps:

1. Using configureEnv.sh|cmd, re-enter the menu passwords to encrypt the data.
2. Run initialSetup.sh|cmd to update property files with the encrypted data.
3. Run the following commands:

```
perl $SPLEBASE/bin/run_java_standalone.plx
com.splwg.shared.common.ResetCryptographyKey
```

4. Run $SPLEBASE/bin/nvokeDBUpdatePatch.sh|cmd and follow the prompts. You can use the –h option to obtain help.
5. Re-enter stored password information using the application (example: passwords for reports).

Synchronizing the Keystore

This process will:

- Synchronize the keystore to the database
- Regenerate the user hashes
- Follow these instructions only when you are sure the data in the database is encrypted with the current keystore. This is used to synchronize the keystore to the database.

Follow these steps:

1. Run the following:

```
perl $SPLEBASE/bin/run_java_standalone.plx
com.splwg.shared.common.ResetCryptographyKey
```

2. Run $SPLEBASE/bin/nvokeDBUpdatePatch.sh|cmd and follow the prompts. You can use the –h option to obtain help.

Creating a New Keystore

This process will:

- Prompt for and encyrpt new application server-stored passwords
- Synchonize the keystore to the database
- Regenerate user hashes
- Decrypt the passwords using the old keystore and encrypt them using the new keystore.

Follow these steps:

1. Copy the old keystore to a temporary directory as a backup measure.
2. Run initialSetup.sh|cmd –k to generate the new keystore.
3. Using configureEnv.sh|cmd, re-enter the menu passwords to encrypt the data.
4. Run initialSetup.sh|cmd to update property files with the encrypted data.
5. Run the following:

```
perl $SPLEBASE/bin/run_ java_standalone.plx
-Dcom.oracle.ouaf.system.old.keystore.file={property-value}
-Dcom.oracle.ouaf.system.old.keystore.passwordFileName={property-
value}
```

```
-Dcom.oracle.ouaf.system.old.keystore.type={property-value}
-Dcom.oracle.ouaf.system.old.keystore.alias={property-value}
-Dcom.oracle.ouaf.system.old.keystore.padding={property-value}
-Dcom.oracle.ouaf.system.old.keystore.mode={property-value}
 com.splwg.shared.common.ChangeCryptographyKey
```

where {property-value}is related to the old keystore

6. Run $SPLEBASE/bin/nvokeDBUpdatePatch.sh|cmd and follow the prompts. You can use the –h option to obtain help.

Installing Hibernate 4.1.0

You must install Hibernate before installing the product.

To install Hibernate external jar files to the Hibernate 3rd party jars depot:

1. Create a Hibernate jar external depot:

```
export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
```

2. Download the hibernate-release-4.1.0.Final.zip file from https://sourceforge.net/projects/hibernate/files/hibernate4/.
3. Click the "4.1.0.Final" link to download the zip file.
4. Extract the contents of the archive file:

```
unzip -q hibernate-release-4.1.0.Final.zip
```

> **Note**: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory ($HIBERNATE_JAR_DIR) using the following commands:

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-
ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-
annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-
4.1.0.Final.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-
api-1.0.1.Final.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-
GA.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-
api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-
3.3.0.Final.jar $HIBERNATE_JAR_DIR
cp hibernate-release-4.1.0.Final/lib/required/ehcache-core-
2.5.2.jar $HIBERNATE_JAR_DIR
```

Chapter 7

Installing Oracle Utilities Digital Asset Management

Important! Please note that Oracle Utilities Digital Asset Management is based on Oracle Utilities Customer to Meter and uses the Oracle Utilities Customer to Meter installation process. The installation procedures in this chapter use steps as that of Oracle Utilities Customer to Meter.

This chapter provides instructions to install Oracle Utilities Digital Asset Management.

Prerequisites

Before you can install the Oracle Utilities Digital Asset Management components, the following must be installed:

- Oracle Utilities Application Framework V4.5.0.1.1

Refer to Installing the Application Server Component of Oracle Utilities Application Framework for instructions.

Installing Oracle Utilities Digital Asset Management Components

The Oracle Utilities Digital Asset Management installation includes:

- Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes
- Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1
- Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches
- Installing Oracle Utilities Meter Data Management V2.5.0.1.1
- Installing Oracle Utilities Operational Device Management V2.4.0.1.1
- Installing Oracle Utilities Digital Asset Management V2.0.0.1.1
- Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches

Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes

Note: This section is applicable only if there are any Oracle Utilities Application Framework prerequisites patches to install.

Oracle Utilities Application Framework patches must be installed prior to installing Oracle Utilities Digital Asset Management.

The patches are available as a convenience roll-up inside the C2M-V2.9.0.1.1-FWPREREQ-MultiPlatform.zip file which is part of the downloaded media pack.

For a list of the patches included in this roll-up, refer to Application Framework Prerequisite Patches.

To install the application and database patches on top of Oracle Utilities Application Framework V4.5.0.1.1:

1. Copy the C2M-V29011-FW-PREREQ-MultiPlatform.jar file in the delivered package to a <TEMPDIR>.
2. Unjar the file.

   ```
   jar -xvf C2M-V29011-FW-PREREQ-MultiPlatform.jar
   ```

3. Initialize the Oracle Utilities Application Framework environment that you want to install the patch roll-up into:

   UNIX

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   Windows

   ```
   $SPLEBASE\bin\splenviron.cmd -e %SPLENVIRON%
   ```

4. Install application patches.

   a. Navigate to the <temp location>/FW-V4.5.0.1.1-Rollup/Application folder.

   b. Execute the group installation script.

   UNIX/Linux

   ```
   chmod a+x installSFgroup.sh
   chmod a+x FW*/*.sh
   ./installSFgroup.sh
   ```

   Windows

   ```
   installSFgroup.cmd
   ```

Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1

This section describes the steps to install Oracle Utilities Customer Care and Billing, including:

- Copying and Decompressing Install Media
- Preparing for the Installation
- Installing the Oracle Utilities Customer Care and Billing Application Component

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms.

Oracle Utilities Digital Asset Management is delivered in a separate installation package for each supported Operating System. Refer to the Supported Platforms section in Supported Platforms and Hardware Requirements for version and installation details regarding the database and operating system versions. Also refer to Installing Application Server Prerequisite Software for the prerequisite third-party software installation instructions.

Download the installation package for your operating system and proceed with the following instructions.

1. Login to the host server as the Oracle Utilities Application Framework administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Digital Asset Management application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.

3. Copy the file CCB-V2.9.0.1.1-MultiPlatform.jar in the delivered package to a <TEMPDIR>. To use FTP to transfer this file, make sure to use the BINARY option.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf CCB-V2.9.0.1.1-MultiPlatform.jar
```

> **Note:** You will need to have Java JDK installed on the machine used to (un)jar the application server installation package. Please install the JDK that is supported for the install on your platform to be able to use the jar command. This is the location of Java packages: http://java.sun.com/products/archive/index.html.

For Windows installs, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named CCB.V2.9.0.1.1 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Preparing for the Installation

1. Login as an Oracle Utilities Digital Asset Management Administrator (default is "cissys").
2. Initialize the Framework environment that you want to install the product into.

   UNIX:

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   Windows:

   ```
   $SPLEBASE\bin\splenviron.cmd -e %SPLENVIRON%
   ```

3. Stop the environment if running.

Installing the Oracle Utilities Customer Care and Billing Application Component

To install the Oracle Utilities Customer Care and Billing application:

1. Change to the <TEMPDIR>/CCB.V2.9.0.1.1 directory.
2. Set the following path:

   ```
   export PATH=<JAVA_HOME>/bin:$PATH
   ```

   > **Note:** The above command is only applicable on a Linux platform. <JAVA_HOME> is the location where the JDK has been installed.

3. Run the following script:

   UNIX

   ```
   ksh ./install.sh
   ```

   Windows

   ```
   install.cmd
   ```

Note: On UNIX, ensure that you have the proper execute permission on install.sh

4. Follow the messages and instructions that are produced by the install utility. Please note that some of the steps may take some time to complete.
5. If the install utility execution was not stopped due to errors and you did not interrupt the execution, you have finished the installation of the Oracle Utilities Digital Asset Management Application product.
6. Run the following commands:

   UNIX

   ```
   splenviron.sh -e <ENV_NAME>
   configureEnv.sh
   Type P and <ENTER> (you don't need to change anything)
   splenviron.sh -e <ENV_NAME>
   initialSetup.sh
   ```

   Windows

   ```
   splenviron.cmd -e <ENV_NAME>
   configureEnv.cmd -e <ENV_NAME>
   Type P and <ENTER> (you don't need to change anything)
   splenviron.cmd -e <ENV_NAME>
   initialSetup.cmd
   ```

7. Start up the environment.

The final step of the installation process is the environment startup. The install utility executes the command spl.sh start (for UNIX) or spl.cmd start (for Windows) to start up the environment. You may start the environment by this command any time. Follow the messages on the screen and check the logs in $SPLSYSTEMLOGS (%SPLSYSTEMLOGS% on Windows) directory to ensure that the environment was started successfully. If the startup failed, identify the problem by reviewing the logs, and start up the environment manually while you are connected to the new environment in your online session.

Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches

Note: This section is applicable only if there are any Oracle Utilities Customer Care and Billing prerequisites patches to install.

The Oracle Utilities Customer Care and Billing patches must be installed after installing Oracle Utilities Customer Care and Billing.

The patches are available as a convenience rollup inside the CCB-V2.9.0.1.1-Rollup-MultiPlatform.zip file, which is part of the downloaded media pack.

For a list of the patches included in this rollup, refer to Post-release Patches.

To install the application and database patches on top of Oracle Utilities Customer Care and Billing V2.9.0.1.1:

1. Copy the CCB-V29011-Rollup-MultiPlatform.jar file in the delivered package to a <TEMPDIR>.
2. Unjar the file.

   ```
   jar -xvf CCB-V29011-Rollup-MultiPlatform.jar
   ```

3. Initialize the Oracle Utilities Customer Care and Billing environment where the Oracle Utilities Customer Care and Billing patch rollup has to be installed.

   UNIX

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   Windows

   ```
   $SPLEBASE\bin\splenviron.cmd -e %SPLENVIRON%
   ```

4. Install application patches.
   a. Navigate to the <temp location>/CCB-V2.9.0.1.1-Rollup/Application folder.
   b. Run the group installation script.

      UNIX/Linux

      ```
      chmod a+x installSFgroup.sh
      chmod a+x CCB*/*.sh
      ./installSFgroup.sh
      ```

      Windows

      ```
      installSFgroup.cmd
      ```

5. Start the environment.

Installing Oracle Utilities Meter Data Management V2.5.0.1.1

This section describes how to install the Oracle Utilities Meter Data Management, including:

- Copying and Decompressing the Install Media
- Installing the Oracle Utilities Meter Data Management Application Component

To proceed with the Oracle Utilities Meter Data Management installation you need to be connected to the target Oracle Utilities Application Framework environment.

Copying and Decompressing the Install Media

The Oracle Utilities Meter Data Management installation file is delivered in jar format for UNIX .

To copy and decompress the install media:

1. Login to the application server host with the Oracle Utilities Application Framework administrator user ID.
2. Download the Oracle Utilities Meter Data Management V2.5.0.1.1 Multiplatform.zip from Oracle Software Delivery Cloud.
3. Create a temporary directory such as c:\ouaf\temp or /ouaf/temp. (Referred to below as <TEMPDIR>)

   Note: This directory must be located outside any current or other 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 Meter Data Management V2.5.0.1.1 Multiplatform.zip to get the file MDM_V2.5.0.1.1.zip from the delivered package and copy to the <TEMPDIR>. To use FTP to transfer this file, use the BINARY option.
5. Decompress the file:

```
cd <TEMPDIR>
unzip MDM_V2.5.0.1.1.zip
cd App
```

For UNIX and Windows platforms, a sub-directory named MDM.V2.5.0.1.1 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Installing the Oracle Utilities Meter Data Management Application Component

To install the Oracle Utilities Meter Data Management application component:

1. Login to the application server host as Oracle Utilities Application Framework Administrator (default cissys).
2. Change directory:

```
cd <install_dir>/bin
```

   where <install_dir> is the location where the Oracle Utilities Application Framework application component is installed.

3. Initialize the environment by running the appropriate command:

   UNIX

```
./splenviron.sh -e <ENV NAME>
```

   Windows

```
splenviron.cmd -e <ENV NAME>
```

4. Navigate to <TEMPDIR>/MDM.V2.5.0.1.1 directory.
5. Run the install script.

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.

   UNIX

```
ksh ./install.sh
```

   Windows

```
install.cmd
```

6. Choose option P to proceed with the installation.

   Note: The rest of the menu items can be ignored if you are installing only Oracle Utilities Meter Data Management.

The Oracle Utilities Meter Data Management installation is complete if no errors occurred during the installation.

Installing Oracle Utilities Operational Device Management V2.4.0.1.1

Important! Note that the Oracle Utilities Operational Device Management installation is not different from that of Oracle Utilities Work and Asset Management installation. Installing Oracle Utilities Work and Asset Management will install Oracle Utilities Operational Device Management also.

This section describes how to install the Oracle Utilities Work and Asset Management application component, including:

- Copying and Decompressing the Oracle Utilities Work and Asset Management Install Media
- Installing the Oracle Utilities Work and Asset Management Application Component

Copying and Decompressing the Oracle Utilities Work and Asset Management Install Media

The Oracle Utilities Work and Asset Management installation file is delivered in jar format for both UNIX and Windows platforms.

To copy and decompress the install media:

1. Login to the application server host as the administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Download the Oracle Utilities Work and Asset Management V2.4.0.1.1 Multiplatform zip file from Oracle Software Delivery Cloud.
3. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Work and Asset Management application environment.

   This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
4. Copy the WAM-V2.4.0.1.1-Multiplatform.jar file in the delivered package to a <TEMPDIR> on your host server. 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 WAM-V2.4.0.1.1-Multiplatform.jar
   ```

For Windows installations, include the location of the JDK in your path before you execute the jar command.

A sub-directory W1.V2.4.0.1.1 is created for both UNIX and Windows platforms. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Installing the Oracle Utilities Work and Asset Management Application Component

Follow these steps to install the Oracle Utilities Work and Asset Management application component:

1. Login to the application server host as the administrator user ID (default cissys).
2. Change the directory.

   ```
   cd <install_dir>
   ```

   where <install_dir> is the location where the Oracle Utilities Application Framework V4.5.0.1.1 base application component is installed.
3. Initialize the environment.

   UNIX

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows

   ```
   splenviron.cmd -e <ENV NAME>
   ```
4. Change to the <TEMPDIR>/W1.V2.4.0.1.1 directory where <install_dir> is the Oracle Utilities Work and Asset Management application component installation directory.

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.

   UNIX

   ```
   ksh ./install.sh
   ```

   Windows

   ```
   install.cmd
   ```
5. Initialize the environment.

   UNIX

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows

   ```
   splenviron.cmd -e <ENV NAME>
   ```

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1

This section describes how to install Oracle Utilities Digital Asset Management, including:

- Copying and Decompressing the Install Media
- Installing the Oracle Utilities Digital Asset Management Application Component

Copying and Decompressing the Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms.

Oracle Utilities Digital Asset Management is delivered as a separate installation package that can be downloaded along with Oracle Utilities Digital Asset Management V2.0.0.1.1.

Download the installation package and proceed as follows:

1. Login to the host server as the Oracle Utilities Application Framework administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the application server, which is independent of any current or other working Oracle Utilities Digital Asset Management application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
3. Copy the C2M.V2.9.0.1.1-MultiPlatform.jar file in the delivered package to a <TEMPDIR> on your application server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

   ```
   cd <TEMPDIR>
   jar -xvf C2M-V2.9.0.1.1-MultiPlatform.jar
   ```

   For UNIX platform, a sub-directory named C2M.V2.9.0.1.1 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Installing the Oracle Utilities Digital Asset Management Application Component

This section outlines the steps to install Oracle Utilities Digital Asset Management.

Preparing for the Installation

1. Login as an Oracle Utilities Digital Asset Management administrator (default cissys).
2. Initialize the Oracle Utilities Application Framework environment where the product should be installed.

   UNIX

   ```
   ./splenviron.sh -e $SPLENVIRON
   ```

   Windows

   ```
   splenviron.cmd -e <ENV NAME>
   ```

3. Stop the environment if running.

Installing the Application

1. Change to the <TEMPDIR>/C2M.V2.9.0.1.1 directory.
2. Run the following script.

   UNIX

   ```
   ksh ./install.sh
   ```

Windows

```
install.cmd
```

> **Note:** On UNIX, ensure that you have the proper execute permission on install.sh.

The Configuration menu for the Oracle Utilities Digital Asset Management application appears.

3. Choose option **P** to proceed with the installation (you need not modify anything).
4. Start up the environment.

   Follow the message on the screen and review the logs in the $SPLSYSTEMLOGS directory to ensure that the environment was started successfully.

   If the startup failed, identify the problem by reviewing the logs. Resolve any issues before attempting to restart the environment.

   > **Note**: while starting the first time, log into the WebLogic console and provide system access to the 'cisusers' role. The WebLogic console application can be accessed through the following URL: http://<hostname>:<portname>/console.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches

> **Note**: This section is applicable only if there are any Oracle Utilities Digital Asset Management prerequisites patches to install.

Oracle Utilities Digital Asset Management patches must be installed after installing Oracle Utilities Digital Asset Management.

The patches are available as a convenience rollup inside the C2M-V2.9.0.1.1-Rollup-MultiPlatform.zip file, which is part of the downloaded media pack.

For a list of the patches included in this rollup, refer to Post-release Patches.

To install the application and database patches on top of Oracle Utilities Digital Asset Management 2.0.0.1.1:

1. Copy the C2M-V29011-Rollup-MultiPlatform.jar file in the delivered package to a <TEMPDIR>.
2. Unjar the file.

   ```
   jar -xvf C2M-V29011-Rollup-MultiPlatform.jar
   ```

3. Initialize the Oracle Utilities Digital Asset Management environment where the Oracle Utilities Digital Asset Management patch rollup has to be installed.

   UNIX

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   Windows

   ```
   $SPLEBASE\bin\splenviron.cmd -e %SPLENVIRON%
   ```

4. Install application patches.

   a. Navigate to the <temp location>/C2M-V2.9.0.1.1-Rollup/Application folder.

b. Run the group installation script.

UNIX/Linux

```
chmod a+x installSFgroup.sh
chmod a+x C2M*/*.sh
./installSFgroup.sh
```

Windows

```
installSFgroup.cmd
```

5. Start the environment.

Chapter 8

Additional Tasks

This chapter describes tasks that should be completed after installing Oracle Utilities Digital Asset Management, including:

- Importing Self-Signed Certificates
- Customizing Configuration Files
- Integrating Existing Customer Modifications
- Building Javadocs Indexes
- Configuring the Environment for Batch Processing
- Customizing the Logo
- Deploying Inbound Web Services (IWS)
- Domain Templates
- Database Patching

Importing Self-Signed Certificates

If you are using self-signed certificates and the Inbound Web Services (IWS) feature, then it is necessary to import these certificates into the OUAF truststore file.

Make sure to perform these steps before deploying the IWS application.

To import the self-signed certificates into the OUAF truststore:

1. Start WebLogic.
2. Initialize a command shell and setup the environment.

   UNIX

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   For example:

   ```
   /ouaf/TEST_ENVIRON1/bin/splenviron.sh -e TEST_ENVIRON1
   ```

   Windows

   ```
   %SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%
   ```

   For example:

   ```
   D:\ouaf\TEST_ENVIRON1\bin\splenviron.cmd -e TEST_ENVIRON1
   ```

3. Generate all information.

   UNIX

   ```
   $SPLEBASE/bin/initialSetup.sh -i
   ```

   Windows

   ```
   %SPLEBASE%\bin\ initialSetup.cmd –i
   ```

Customizing Configuration Files

To make customer modifications to various configuration files, create a 'CM copy' of the template file or user exit instead. This preserves the changes whenever initialSetup is executed; else, the changes to the delivered template files will be lost if it is patched in the future.

Below is a sample procedure to customize Hibernate properties of the SPLWeb web application:

1. Locate the hibernate.properties.template in the $SPLEBASE/templates directory.
2. Copy the file to cm.hibernate.properties.template.
3. Apply the changes to cm.hibernate.properties.template.
4. Update the application war file with the latest changes:

   Unix:

   ```
   $SPLEBASE/bin/initialSetup.sh
   ```

   Windows:

   ```
   %SPLEBASE%\bin\initialSetup.cmd
   ```

Refer to the Oracle Utilities Application Framework SDK documentation for more details.

Centralized Properties Customization

This feature gives the ability to add, modify, and remove properties in one file. The properties are propagated to the specified property files. The template process, which is part of the initialSetup step, will look at the files etc/cm_properties.ini (this can be created as a Customer Customization), if the file exists the content will be processed for the relevant properties.

> **Note**: Product teams might use this file format: etc/<PROD>_properties.ini (where <PROD> could be one of the list of installed products included in etc/PRODUCT.txt). If it exits it will be processed as well.

cm_properties.ini examples

Type of entries that could be included into cm_properties.ini and relevant type of action:

<PROPERTIES_FILE>:<PROPERTY_NAME>=<VALUE>

- Override <PROPERTY_NAME> in <PROPERTIES_FILE> with <VALUE> if exists.
- Insert <PROPERTY_NAME> in <PROPERTIES_FILE> with <VALUE> it doesn't exists.

<PROPERTY_NAME>=<VALUE>

- Override <PROPERTY_NAME> in all property files with <VALUE>, if <PROPERTY_NAME> exists.

<PROPERTIES_FILE>:<PROPERTY_NAME>=[DELETE]

- Remove <PROPERTY_NAME> from <PROPERTIES_FILE> if exists.

<PROPERTY_NAME>=[DELETE]

- Remove <PROPERTY_NAME> from all property files, if <PROPERTY_NAME> exists.

Template example: hibernate.service.properties.template

```
hibernate.user = @DBUSER@
hibernate.pass = @DBPASS@
hibernate.ucp.validate_connection = true
```

ENVIRON.INI example

```
DBUSER=cisadm
```

cm_properties.ini example

```
hibernate.service.properties.template:hibernate.user=clouduser
hibernate.password=cloudpwd
hibernate.iws.properties.template:hibernate.user=clouduser
hibernate.service.properties.template:hibernate.ucp.validate_conne
ction=[DELETE]
hibernate.service.properties.template:new.property=test
```

hibernate.service.properties generated properties file result

```
### The following line was overridden because <PROD>_properties.ini
file setting:
hibernate.user=clouduser
### The following line was overridden because <PROD>_properties.ini
file setting:
hibernate.password=cloudpwd
### The following line was deleted because <PROD>_properties.ini
file setting:
# hibernate.ucp.validate_connection = true
### The following line was appended because <PROD>_properties.ini
file setting:
new.property = test
```

hibernate.iws.properties generated properties file result

```
### The following line was overridden because <PROD>_properties.ini
file setting:
hibernate.user=clouduser
### The following line was overridden because <PROD>_properties.ini
file setting:
hibernate.password=cloudpwd
```

Integrating Existing Customer Modifications

Existing Customer Modifications (CM) applied to an application server on an earlier release cannot be applied directly to a later version. CM code needs to be applied from an SDK version compatible with this release.

Refer to SDK documentation for more information about migrating CM code.

Building Javadocs Indexes

Rebuilding Javadoc indexes is already part of generating application viewer above. However, there are times when you need to run it separately. For example, this is required after customer modifications (CM) have been applied to an environment when it includes Java code.

To rebuild the Javadoc indexes:

Windows

```
%SPLEBASE%\bin\buildJavadocsIndex.cmd
```

UNIX

```
ksh $SPLEBASE/bin/buildJavadocsIndex.sh
```

Configuring the Environment for Batch Processing

Refer to the *Server Administration Guide* for information about configuring the environment for batch processing.

Customizing the Logo

To replace the Oracle Utilities logo on the main menu with another image, put the new image <customer_logo_file>.png file into the directory $SPLEBASE/etc/conf/root/cm and create a new "External" Navigation Key called CM_logoImage.

To do that, run the Oracle Utilities application from the browser with the parameters: http://<hostname>:<port>/cis.jsp?utilities=true&tools=true. From the Admin menu, select Navigation Key. Add the above Navigation Key with its corresponding URL Override path. The syntax for the URL path is:

Windows

http://<host name>:<port>/<Web Context>/cm/<customer_logo_file>.png

UNIX

http://<host name>:<port>/<Web Context>/cm/<customer_logo_file>.png

The root directory may be deployed in war file format for runtime environment (SPLApp.war). Use provided utilities to incorporate your cm directory into SPLApp.war file.

Deploying Inbound Web Services (IWS)

All existing XAI Inbound Services have been duplicated as Inbound Web Services. The application no longer supports XAI. The duplicated services are designed to work seamlessly in this release, and customers providing custom services are encouraged to migrate to Inbound Web Services to take full advantage of the new, more efficient web service technology.

For more information about migrating from XAI to IWS, please refer to *Migrating from XAI to IWS Oracle Utilities Application Framework* (Doc ID 1644914.1) on My Oracle Support.

Follow these steps to deploy IWS:

UNIX

1. Enable the Web Services Functionality.

   ```
   cd $SPLEBASE/bin
   configureEnv.sh -a
   ```

   Select option **50** and set the option "Enable Web Services Functionality" to true. Enter **P** to process.

2. Execute initialSetup.sh as shown below:

   ```
   cd $SPLEBASE/bin
   ksh ./initialSetup.sh
   ```

3. Set the classpath.

   ```
   $ CLASSPATH=$WL_HOME/server/lib/weblogic.jar:$CLASSPATH
   $ export CLASSPATH
   $ cd $SPLEBASE/bin
   ```

4. Run the following command:

   ```
   $ java weblogic.Admin -username <username> -password <password>
   STOREUSERCONFIG -userconfigfile $SPLEBASE/etc/.wlsuserconfig -
   userkeyfile $SPLEBASE/etc/.wlsuserkey
   ```

   Select **y**.

5. Execute the below step in $SPLEBASE/bin. Make sure that the application server is up and running.

   ```
   ksh ./iwsdeploy.sh
   ```

Windows

1. Enable the Web Services Functionality.

   ```
   cd %SPLEBASE%\bin
   ```

2. Execute configureEnv.cmd –a.

   Select option **50** and set the option "Enable Web Services Functionality" to true. Enter **P** to process.

3. Execute initialSetup.cmd.

   ```
   cd %SPLEBASE%\bin initialSetup.cmd
   ```

4. Set the classpath.

   ```
   set CLASSPATH=%WL_HOME%\server\lib\weblogic.jar;%CLASSPATH%
   ```

5. Execute the following command:

   ```
   java weblogic.Admin -username system -password ouafadmin
   STOREUSERCONFIG -userconfigfile %SPLEBASE%\etc\.wlsuserconfig -
   userkeyfile %SPLEBASE%\etc\.wlsuserkey
   ```

   Select **y**.

6. Execute the following command in %SPLEBASE%\bin. Make sure the application server is up and running.

   ```
   iwsdeploy.cmd
   ```

Domain Templates

Configure the WebLogic application server to deploy it. Refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Framework* (Doc ID 2413918.1) on My Oracle Support for more details.

Update Domain Home Location

The following update in the configuration indicates if the embedded configuration is being utilized or if the environment is a native installation to WebLogic. When this item is populated in the environment, the delivered base tools will be able to identify that the starting and stopping of the environment are being done under the domain home.

1. Initialize the Environment: splenviron.sh –e <Environment_Name>
2. Execute: configureEnv.sh –a

3. Select Menu Item: 52. Advanced Web Application Configuration

==========

4. 02. Configuration Option: Domain Home Location

   Current Value <ENTER>:

   The Weblogic Domain Home location, when this parameter is populated you will need to use the native Weblogic tools for maintenance (starting, stopping, deployment, and undeployment).

   Enter Value: <Enter your domain home location>

5. Once the Domain Home location has been completed, enter <P>.

Database Patching

The database patching utility is delivered under SPLEBASE and is Java-based so you are able to create a standalone package to be able to install database patches on a separate server that has Java 8 installed. You can also install database patches using the components that are delivered under SPLEBASE without the need to move the database patching utility to a different server.

The following is an overview of the process to install database patches on a separate server. You will need to create a jar file containing the utilities and supporting files to allow you to run the database patch installer on another server.

To generate the jar file:

1. Initialize a command shell:

   The scripts that are provided with the system need to be run from a shell prompt on the machine where you installed the application server. Before such scripts can be run the shell must be "initialized" by running the splenviron script provided with the system.

   UNIX

   Log on to your UNIX box as the Oracle Utilities Administrator (default cissys) and open a shell prompt.

   In the following example, replace the variables:

   - $SPLEBASE with the full directory name that you installed the application into.
   - $SPLENVIRON with the name you gave to the environment at installation time.

   To initialize the environment enter:

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   For example:

   ```
   /ouaf/DEMO/bin/splenviron.sh -e DEMO
   ```

   Windows

   The command window should be opened on the Windows server that you installed the application on.

In the below example you should replace the following variables:

- %SPLEBASE%: The full directory name that you installed the application into.
- %SPLENVIRON%: The name you gave to the environment at installation time.

To initialize the environment, type the following in your command prompt:

```
%SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%
```

For example:

```
D:\ouaf\DEMO\bin\splenviron.cmd -e DEMO
```

2. Execute the following script to generate the jar file.

   UNIX

   ```
   ksh $SPLEBASE/bin/createDBStandlone.sh
   ```

   Windows

   ```
   %SPLEBASE%\bin\createDBStandlone.cmd
   ```

   Note: By default, the output jar db_patch_standalone.jar is created in SPLEBASE/tools/dbstandalone. You can use the –l option to change the default directory.

3. Transfer the generated jar (db_patch_standalone.jar) to the Windows/Unix machine where you want to run the database patching utility.
4. Extract the contents of the archive file:

   ```
   jar xvf db_patch_standalone.jar
   ```

   Note: You must have Java 8 JDK installed on the machine to use the jar command. Be sure to install the JDK that is supported for your platform.

Overview of Database Patching Application

The database patching utility requires you have Java 7 JDK installed on the machine to execute the database patch application process.

The patch application process will perform following items to account for executing patch application under SPLEBASE or on a standalone server.

The database patch application utility will look do the following when it is executed:

- Checks to see if the environment variable $SPLEBASE is set.

  If the $SPLEBASE variable is set, the utility uses the libraries under $SPLEBASE to apply the patch.

- When the $SPLEBASE is not set, the utility checks to see if the TOOLSBIN environment variable is set.

  If the TOOLSBIN is set, the utility uses the libraries under the TOOLSBIN location.

- When both SPLEBASE and TOOLSBIN environment are not set, the utility prompts for the location of the TOOLSBIN.

The TOOLSBIN is the location of the of the application scripts ouafDatabasePatch.sh[cmd].

Unix Example

The TOOLSBIN location would be set to /ouaf/dbpatch/bin

```
export TOOLSBIN=/ouaf/dbpatch/bin
```

Unix Sample - Database Patch Application (ouafDatabasePatch.sh)

> **Note**: The default permissions (ouafDatabasePatch.sh), may need to be adjusted to be executed by your user and group, when applying database fixes.

- Sample Execution – Passing a Password

```
./ouafDatabasePatch.sh -x ouafadm -p "-t O -d
CISADM_Z1_12C_43030_BLD001,slc04lds:1522:Z143Q12C"
```

- Sample Execution – Prompting for a Password

```
./ouafDatabasePatch.sh  -p "-t O -d
CISADM_Z1_12C_43030_BLD001,slc04lds:1522:Z143Q12C"
```

- Sample Execution - passing in the tools bin location

```
/ouafDatabasePatch.sh -u
ouafDatabasePatch.sh [-h] [-u] [-v] [-x] [-t tools dir] [-p
ouafparms]
-h   displays help of ouafpatch
-u   displays usage of ouafDatabasePatch.sh
-v   displays version of ouafpatch
-x   password to be passed to ouafpatch
-b   location of the tools bin directory
-p   parameters directly passed to ouafpatch must be the last
parameter passed and be enclosed with quotes
```

WINDOWS Example

The TOOLSBIN location would be set to c:\ouaf\dbpatch\bin

```
SET TOOLSBIN=c:\ouaf\dbpatch\bin
```

Windows Sample - Database Patch Application (ouafDatabasePatch.cmd)

- Sample Execution – Passing a Password

  ouafDatabasePatch.cmd -x password -p "-t O -d
  SCHEMA_NAME,DBSERVER:DBPORT:DBSID"

- Sample Execution – Prompting for a Password

  ouafDatabasePatch.cmd –p "-t O -d
  SCHEMA_NAME,DBSERVER:DBPORT:DBSID C"

- Sample Execution - passing in the tools bin location

  ouafDatabasePatch.cmd -b "C:\temp\db_patch_standalone\bin" -p "-t O -d
  SCHEMA_NAME,DBSERVER:DBPORT:DBSID -c
  C:\temp\dbrollup\CDXPatch2\CDXPatch.ini"

Windows Sample Usage:

```
ouafDatabasePatch.cmd -u
USAGE:
USAGE:ouafDatabasePatch.cmd[-h] [-u] [-v] [-x] [-b tools dir] [-p
ouafparms]
```

```
USAGE:          -h   displays help of ouafpatch
USAGE:          -u   displays usage of ouafDatabasePatch.cmd
USAGE:          -v   displays version of ouafpatch
USAGE:          -x   password to be passed to ouafpatch
USAGE:          -b   location of the tools bin directory
USAGE:          -p   parameters directly passed to ouafpatch
USAGE:               must be enclosed with quotes: "  "
USAGE:
USAGE:
USAGE:
```

Chapter 9

Upgrading Oracle Utilities Digital Asset Management

This chapter provides the instructions to upgrade Oracle Utilities Digital Asset Management, including:

- Upgrade Paths
- Before You Upgrade
- Upgrade Procedure
- Post-Upgrade Verifications
- Installing Service Packs and Patches

For information about implementation scenarios, refer to the *Oracle Utilities Customer to Meter Solution Implementation Guidelines* document at https://www.oracle.com/partners/en/products/industries/utilities/customer-solution/secure/implementation-guidelines-4024252.pdf.

Upgrade Paths

The following upgrade paths are applicable to this release:

- From V2.0.0.0.0 to V2.0.0.1.1

  Before you can upgrade you must have a prior version installed. If not, follow the procedures described in Installing the Application Server Component of Oracle Utilities Application Framework and Upgrading Oracle Utilities Digital Asset Management in this guide.

Before You Upgrade

Review the list of operating system, application server, and database server combinations supported for this version of Oracle Utilities Digital Asset Management in the Supported Platforms section in Supported Platforms and Hardware Requirements.

For further assistance, contact My Oracle Support before you upgrade.

Copying and Decompressing Install Media for the Oracle Utilities Digital Asset Management Database and Application Components

Refer to the Copying and Decompressing Install Media section in Installing the Application Server Component of Oracle Utilities Application Framework for instructions on copying and decompressing install media.

Setting Permissions for the cistab file in UNIX for the Oracle Utilities Digital Asset Management Application Component

Refer to the Set Permissions for the cistab File in UNIX section in Installing the Application Server Component of Oracle Utilities Application Framework for instructions.

Upgrade Procedure

The upgrade installation procedure consists of:

- Upgrading the Database Component
- Upgrading the Application Component

Upgrading the Database Component

Upgrading the Oracle Utilities Digital Asset Management database component must be complete before you can upgrade the application component.

Refer to the **Upgrade Install** section in the *Oracle Utilities Digital Asset Management Database Administrator's Guide* included in this release for instructions to upgrade the database component.

Upgrading the Application Component

A successful upgrade consists of the following steps:

- Upgrading Oracle Utilities Customer Care and Billing to Oracle Utilities Digital Asset Management V2.0.0.1.1
- Upgrading Oracle Utilities Meter Data Management to Oracle Utilities Digital Asset Management V2.0.0.1.1
- Upgrading Oracle Utilities Operational Device Management to Oracle Utilities Digital Asset Management V2.9.0.1.1
- Upgrading Oracle Utilities Digital Asset Management to Oracle Utilities Digital Asset Management V2.0.0.1.1

Upgrading Oracle Utilities Customer Care and Billing to Oracle Utilities Digital Asset Management V2.0.0.1.1

This section assumes that only Oracle Utilities Customer Care and Billing exists on top of Oracle Utilities Application Framework. Make sure to perform the following for upgrade.

Upgrading Oracle Utilities Application Framework

For instructions, refer to Installing Oracle Utilities Application Framework.

To upgrade, use the following command:

Unix:

```
ksh ./install.sh -u
```

Windows:

```
install.cmd -u
```

Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes

For instructions, refer to Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes.

Upgrading Oracle Utilities Customer Care and Billing V2.9.0.1.1

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1.

Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches.

Installing Oracle Utilities Meter Data Management V2.5.0.1.1

For instructions, refer to Installing Oracle Utilities Meter Data Management V2.5.0.1.1.

Installing Oracle Utilities Operational Device Management V2.4.0.1.1

For instructions, refer to Installing Oracle Utilities Operational Device Management V2.4.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches.

Upgrading Oracle Utilities Meter Data Management to Oracle Utilities Digital Asset Management V2.0.0.1.1

This section assumes that only Oracle Utilities Meter Data Management exists on top of Oracle Utilities Application Framework.

Perform the following to upgrade Oracle Utilities Meter Data Management to Oracle Utilities Digital Asset Management.

Upgrading Oracle Utilities Application Framework

For instructions, refer to Installing Oracle Utilities Application Framework.

To upgrade, follow the command:

Unix:

```
ksh ./install.sh -u
```

Windows:

```
install.cmd -u
```

> **Note**: The upgrade install does not clean files of libraries that were removed from the latest version.

Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes

For instructions, refer to Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes.

Upgrading Oracle Utilities Customer Care and Billing V2.9.0.1.1

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1.

Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches.

Installing Oracle Utilities Meter Data Management V2.5.0.1.1

For instructions, refer to Installing Oracle Utilities Meter Data Management V2.5.0.1.1.

Installing Oracle Utilities Operational Device Management V2.4.0.1.1

For instructions, refer to Installing Oracle Utilities Operational Device Management V2.4.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches.

Upgrading Oracle Utilities Operational Device Management to Oracle Utilities Digital Asset Management V2.9.0.1.1

This section assumes that only Oracle Utilities Operational Device Management exists on top of Oracle Utilities Application Framework.

Perform the following to upgrade Oracle Utilities Operational Device Management to Oracle Utilities Digital Asset Management.

Upgrading Oracle Utilities Application Framework

For instructions, refer to Installing Oracle Utilities Application Framework.

To upgrade, use the following command:

Unix:

```
ksh ./install.sh -u
```

Windows:

```
install.cmd -u
```

> **Note**: The upgrade install does not clean files of libraries that were removed from the latest version.

Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes

For instructions, refer to Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes.

Upgrading Oracle Utilities Customer Care and Billing V2.9.0.1.1

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1.

Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches.

Installing Oracle Utilities Meter Data Management V2.5.0.1.1

For instructions, refer to Installing Oracle Utilities Meter Data Management V2.5.0.1.1.

Installing Oracle Utilities Operational Device Management V2.4.0.1.1

For instructions, refer to Installing Oracle Utilities Operational Device Management V2.4.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches.

Upgrading Oracle Utilities Digital Asset Management to Oracle Utilities Digital Asset Management V2.0.0.1.1

This section assumes that only Oracle Utilities Digital Asset Management exists on top of Oracle Utilities Application Framework.

Perform the following to upgrade Oracle Utilities Digital Asset Management to Oracle Utilities Digital Asset Management V2.0.0.1.1.

Upgrading Oracle Utilities Application Framework

For instructions, refer to Installing Oracle Utilities Application Framework.

To upgrade, use the following command:

Unix:

```
ksh ./install.sh -u
```

Windows:

```
install.cmd -u
```

> **Note**: The upgrade install does not clean files of libraries that were removed from the latest version.

Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes

For instructions, refer to Installing Oracle Utilities Application Framework V4.5.0.1.1 Prerequisite Single Fixes.

Upgrading Oracle Utilities Customer Care and Billing V2.9.0.1.1

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1.

Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Customer Care and Billing V2.9.0.1.1 Post-release Patches.

Installing Oracle Utilities Meter Data Management V2.5.0.1.1

For instructions, refer to Installing Oracle Utilities Meter Data Management V2.5.0.1.1.

Installing Oracle Utilities Operational Device Management V2.4.0.1.1

For instructions, refer to Installing Oracle Utilities Operational Device Management V2.4.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1.

Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches

For instructions, refer to Installing Oracle Utilities Digital Asset Management V2.0.0.1.1 Post-release Patches.

Creating WebLogic Domain

With Oracle Utilities Application Framework V4.5.0.1.1 a WebLogic native installation is required. Refer to the *Oracle WebLogic 12.2.1.x Configuration Guide for Oracle Utilities Application Framework (Doc ID 2413918.1)* document on My Oracle Support for more information.

Post-Upgrade Verifications

After you complete the upgrade, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm that the installation logs do not contain any errors.
3. Confirm that all the configurations are correct.

   Refer to the Installation and Configuration Worksheets section in Planning the Installation for more details.
4. Confirm that the database is ready.
5. Generate the Application Viewer.
6. Start the application server.

At this point, the installation is complete.

Refer to the *Server Administration Guide* for more information on further configuring and operating the system.

Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information about installing patches, refer to **Document ID 974985.1** on My Oracle Support.

Service packs and patches can be downloaded from on My Oracle Support.

Appendix A

Application Framework Prerequisite Patches

There are no Oracle Utilities Application Framework prerequisite patches to be installed in this Oracle Utilities Digital Asset Management release.

Appendix B

Oracle Utilities Digital Asset Management Fixes

The following table lists the Oracle Utilities Customer Care and Billing and Oracle Utilities Customer to Meter product fixes included in this release:

Bug Number	Description
Oracle Utilities Customer Care and Billing	
33162122	COPY OF 31637758 - WHEN DUPLICATING A USER, USER'S CIS DIVISIONS ARE NOT COPIED
34357540	COPY OF 34190379 - SA TYPE SA RELATIONSHIP TYPE SCREEN HAS SOME ISSUES
34444350	GDE ADDITIONAL FIXES - MO AUDIT ALGO NOT BEING TRIGGERED FOR SOME PROGRAM
34588681	COPY OF 34076633 - AFTER PATCH 33400634, ISSUE 2 PER- SISTS: ERROR WHEN GENERATING A BILL: Â¿SA (<SA ID>) DOES NOT CONTAIN ANY BILLABLE SUBSAÂ
34693614	COPY OF 34638755 - ISSUES STILL PERSISTS AFTER INSTALLING PATCH 34555722
34717470	COPY OF 34354754 - PROCESS FLOW: A. ID NUMBERS ARE NOT SAVED
34735941	COPY OF 34119432 - TENDER TYPE LIMIT WHEN POSTING NON-CIS PAYMENT
34765826	COPY OF 34154590 - SYSTEM ERROR ENCOUNTERED ADDING PREDEFINED CHARACTERISTIC
34769770	COPY OF 34675755 - BCS: CMA FOR C1-ACCOUNT MISSING SA FROM PAYOR ACCOUNT
34781557	COPY OF 34187675 - PAYMENT ARRANGEMENT REQUEST ERROR
34781805	COPY OF 34661924 - STOP AND TRANSFER PROCESS FLOW: PERSON IDENTIFIER ID NUMBER DISPLAY

Bug Number	Description
34790025	COPY OF 34724108 - NON-BILLED BUDGET MONITORING FIELD IS MISSING ON THE SA TYPE PAGE
34812762	COPY OF 34708656 - N60 CCS CREATING 4 TENDER CONTROLS WITH SAME TENDER SOURCE AFTER RUNNING BALAPY BATCH
34821984	COPY OF 34674949 - PREPAY BILL SEGMENTS GRAPH NOT SHOWING CORRECTLY
34822100	COPY OF 34813306 - REDWOOD: BIGFIX: 22A: THE DESCRIPTION IS STILL DISPLAYED EVEN THOUGH THE VALUE IN THE TEXTBOX IS ALREADY BLANK/ REMOVED
34823297	COPY OF 34817943 - REDWOOD: BIGFIX: 22A: (CCB) POSITION OF END DATE IS OFF ON OUTAGE CALL QUERY PAGE
34823870	COPY OF 34801684 - SP_SRC_STATUS_FLG NOW REQUIRED ON DOING START ON CCB/MDM INTEGRATION
34831263	COPY OF 34820598 - BCS - PERFORMANCE FOR CMA (FW-MIGRATION) - SERVICE PROVIDER CHANGES
34843489	COPY OF 33165397 - PDT - CHANGE PERSON LINKED TO ACCOUNT, ERROR IN START/STOP
34852087	COPY OF 32232830 - PERSON ONLY CUSTOMER CONTACTS NOT BEING CREATED
34852095	COPY OF 34599458 - START SERVICE PROCESS FLOW NOT LOADING THE SA DETAILS
34855784	COPY OF 34855709 - XMLINDEX NOT SUPPORTED IN ADB (23A)
34865082	COPY OF 34859246 - UNABLE TO REMOVE SYNC REQUEST MONITOR AS MONITOR PROCESS ON C1-PARENTEXTERNALREPOPLUSSYNC
34892887	COPY OF 34804721 - TABLE IS BLANK ON USAGE AND BILLING ZONE IN CUSTOMER360 PORTAL.
34893488	COPY OF 34759120 - STOP SERVICE PROCESS FLOW â ERROR ENCOUNTERED WHEN PERSON HAS MORE THAN 10 CHARACTERISTICS CONTINUED
34893504	COPY OF 34719534 - REGISTRATION POINT CHARACTERISTICS GETS DELETED WHEN ENCOUNTERING ERROR ON SAVE
34893509	COPY OF 34372722 - ISSUES IN ADD OTHER PERSON FUNCTIONALITY IN START SERVICE PROCESS FLOW

Bug Number	Description
34899240	REVERT MULTI-CIS DIVISION CHANGES FOR DSS INVITE GUEST FUNCTIONALITY
34930854	COPY OF 34779808 - PROD: SYSTEM ERROR WHEN BILLING A BILLABLE CHARGE SA WITH A RATE AFTER 21C UPGRADE
34965522	COPY OF 34796855 - BILL SEGMENT SUBTOTAL SUMMARY CALC LINE AMOUNT ON 2ND BSEG HEADER IS INCORRECT
34989189	COPY OF 34805241 - MORE THAN ONE ACCOUNT FOUND FOR THE PREMISE
34993797	COPY OF 34985138 - ADD VALUES TO C1-SQDTTMHIGHLIGHTTYPELOOKUP EXTENDABLE LOOKUP
35009771	COPY OF 34935252 - MATH CALC RULE NOT WORKING WITH INTERVAL BILL FACTOR AND INTERVAL SERVICE QUANTITY
35019377	COPY OF BUG 35018423 - CMA - PLEASE INCLUDE SA RELATIONSHIP IN C1-ACCOUNT MIGRATION PLAN
35020760	COPY OF 35017685 - REDWOOD: BIGFIX: 22A: (CCB) DOUBLE VERTICAL SCROLLBAR
Oracle Utilities Meter Data Management	
25114375	READER REMARK ADD DISPLAYS 3 EDITABLE FIELDS THAT CANNOT BE CHANGED
31613891	SCRIPT D1-PROCESSBF DOES NOT POPULATE SPID WHEN PKVALUE1 IS POPULATED
33956123	COPY OF 33956118 - COPY OF 33956112 - COPY OF 33182151 - NEGATIVE ESTIMATION INT
33956146	COPY OF 33956089 - COPY OF 33926207 - REQUESTED COPY FOR 2.4 OF BUG 33825380 - N
34026220	COPY OF BUG 34026207 - COPY OF BUG 34026196 - CONNECT DEVICE COMPLETION EVENT DOES NOT HANDLE "DEVICE STATUS LEFT" FROM INBOUND COMMUNICATION
34080256	COPY OF 34080250 - NO READ OUTAGE IMDS CREATED WHEN THEY ARE NOT SUPPOSED TO
34174848	COPY OF 34174844 - COPY OF 34174836 - COPY OF 34137391 - SP-EQUIPMENT COUNT IS N
34294534	FULL REFRESH OF THE CONTEXT UPON NAVIGATING TO THE PREMISE
34370652	COPY OF BUG 34370646 - INTERVAL ADJ FROM SCALAR VEE RULE SHOULD CHECK CONDITION RANGE FIRST BEFORE DOING SCALAR PCT CHECK

Bug Number	Description
34445531	COPY OF 34445524 - DATA QUALITY ASSESSMENT AND IS ESTIMATE FLAG INCORRECTLY MARKED
34468080	COPY OF BUG 34468076 - COPY OF BUG 34414511 - USAGE TRANSACTION CORRECTION PROCESSOR ACTIVITY IS NOT BEING CREATED
34497155	COPY OF 34497149 - COPY OF 34497144 - COPY OF 34303577 - PERIODIC ESTIMATION CREATING INCORRECT INTERVAL ESTIMATIONS DURING OUTAGE
34532630	COPY OF 34532609 - COPY OF 34187461 - FOR CHANNEL STATISTICS, THE START AND STOP OF THE STATISTICS MSRMT IS NOT CALCULATED AS DESCRIBED
34544292	COPY OF BUG 34544279 - INSERTION OF NEW CHAR ROW EVEN WHEN THERE IS NO CHANGE TO THE CHAR ITSELF
34555386	COPY OF BUG 34555382 - USAGE PERIOD END DATE IS NOT UPDATING TO MATCH END READ #2
34657173	COPY OF 34657105 - VEE ESTIMATION INTERVAL PROXY DAY RULE NOT WORKING IN C2M
34717058	COPY OF 34717051 - IMD EXCEPTION - ESTIMATED MEASUREMENT WITH MISSING USAGE SUBSCRIPTION EXCEPTION
34742269	COPY OF BUG 34742265 - CONSUMPTION SYNC ACTIVITY ROLLS BACK TO PENDING RATHER THAN ISSUE-DETD FOR FAILED ESTIMATION
34745006	COPY OF BUG 34744998 - COPY OF BUG 34744995 - COPY OF BUG 34056248 - SYSTEM ERROR APPEARS ON CLICKING 'VERIFY DATES' ON THE IMD
34760626	COPY OF 34760622 COPY OF 34675282 - SENSUS IMD FORMAT INCORRECT FOR SPRING DST DAYLIGHT SAVINGS TIME
34760637	COPY OF 34760633 - SENSUS IMD FORMAT INCORRECT FOR SPRING DST DAYLIGHT SAVINGS TIME (NATIVE)
34765140	COPY OF 34765135 - COPY OF 34765133 - COPY OF 34765131 - COPY OF 34726857 - UNABLE TO SEARCH USAGE TRANSACTION ID THROUGH USAGE EXTERNAL ID FROM BASE PORTAL ON PROD
34767077	COPY OF 34767073 - DAILY SCALAR USAGE RULE RETURNS MEASUREMENTS AFTER DEVICE REMOVAL DATE/TIME
34768638	COPY OF 34753095 - COPY OF 34753087 - COPY OF 34747437 - MV90 LOADING - INDEX OUT OF RANGE

Bug Number	Description
34769619	COPY OF BUG 34247813 - BACK-TO-BACK FAILING TO START SERVICE AFTER CUSTOMER CUT FOR NON-PAYMENT
34777625	COPY OF 34777618 - COPY OF 32768400 - CLOSING BSEG NOT PICKING UP USAGE ON NEW METER FOR METER EXCHANGES. CAUSING LOST REVENUE FOR CLIENT
34783790	COPY OF BUG 34783758 - MDM - ODM CHANGES: [OIC] DELIVER OUTBOUND MESSAGE TYPES
34783804	COPY OF BUG 34783766 - [DACS] SUBSCRIPTION ATTRIBUTES/ATTRIBUTE VALUES ARE NOT RENDERING PROPERLY
34784235	COPY OF 34784234 - COPY OF 34784231 - COPY OF 34783588 - EXTRACT ADDITIONAL INFORMATION INTO DATACONNECT INTERVAL AMI EXTRACT FOR BHE & EL PASO
34787318	COPY OF 34787294 - COPY OF 34787259 - COPY OF 34787193 - COPY OF 34748019 - MV90 BATCH IS NOT PROCESSING COMPLETE FILE
34788270	COPY OF 34788262 - COPY OF 34734462 - ARRAY MATH SHOULD LOOK TO MC SET NOT DATA SOURCE MC SET
34789925	COPY OF 34789919 - COPY OF 34239575 - PERIODIC ESTIMATION BATCH D1-SMMTR FOR SMARTMETER BATCH IS STUCK AND NOT PROCESSING RECORD ON RERUN
34795447	METER INSIGHTS MASTER CONFIGURATION SHOULD HAVE THE OPTION TO ENTER LAST MEASUREMENT THRESHOLD
34800416	COPY OF BUG 34800386 - COPY OF BUG 34160375 - NEW LOCATION SHOULD NOT BE THE SAME AS THE CURRENT LOCATION PROCESS ERROR IN WAM
34802941	COPY OF 34341619 - 2.8 - ROUTE MANAGEMENT ZONE ISSUES
34803200	REDWOOD: SOM ACTIVITY TYPE PORTAL ZONE HEIGHTS ARE SO SMALL
34810001	COPY OF 34809996 - COPY OF 34677661 - INSTALL EVENT OUTBOUND SYNC REQUEST RECORD NOT BEING CREATED.
34812657	COPY OF 34812653 - COPY OF 34812650 - COPY OF 34812645 - COPY OF 34517280 - D1-SP-URCF THAT EVALUATES SP ELEMENTS IS NOT CONSIDERING THE EFFECTIVITY DATE OF SP CHARACTERISTIC

Bug Number	Description
34814315	COPY OF BUG 34490041 - COPY OF BUG 33966182 - REMOTE DISCONNECT ACTIVITY ISSUE
34815923	COPY OF 34815782 - COPY OF 34815216 - COPY OF
34668872 -	METER OPERATIONAL DASHBOARD - UNABLE TO FILTER SELECT/DESELECT BY EXCEPTION TYPE
34816637	COPY OF 34816636 - COPY OF 34641105 - MULTI TIME ZONE SUPPORT DOES NOT SEEM TO BE WORKING CORRECTLY (MDM)
34819333	COPY OF BUG 34819324 - COPY OF BUG 33876988 - DEVICE TYPE DROPDOWN ON SERVICE POINT EQUIPMENT QUERY POP UP DOES NOT DISPLAY ELIGIBLE SP DEVICES
34821956	COPY OF BUG 34821954 - COPY OF BUG 34622732 - NO ERROR OR POP-UP MESSAGE WHEN THE LOADING IMD VIA CSV FAILS
34825500	COPY OF 34825491 - COPY OF 34610278 - SCALAR AGGREGATION HAS INEFFICIENT QUERY
34847704	COPY OF BUG 34847697 - N60 AFTER TRANSFER ON ROUTE MANAGEMENT, ACCOUNT'S BILL CYCLE NOT UPDATED TO BE IN SYNC WITH CHANGED SP MEASUREMENT CYCLE
34848691	COPY OF 34626715 - FA INBOUND SCHEMA CHANGED TO USE LOOKUP THAT DOESN'T CONTAIN VALUES SENT FROM MWM
34856629	COPY OF 34885297 - REDWOOD - START/END DATE/ TIME FIELDS ARE DISPLAYING EXTRA TEXT
34858480	COPY OF 34858479 - COPY OF 34858470 - COPY OF
34839485	MULTIPLE ELEMENTS WITH SAME NAME FOR MASTER CONFIG BO D2-USAGETRANEXPORTCONFIG
34858855	COPY OF 34858839 - COPY OF 34858808 - COPY OF
34822043	REDWOOD: BIGFIX: 22A: (MDM) MISSING HORIZONTAL SCROLLBAR ON MULTIPLE PAGES
34859145	COPY OF 34859135 - COPY OF 34859129 - COPY OF
34768153	REDWOOD - (MDM) IN ACTIVITY FOR PAYLOAD STATISTIC, PRESS <ENTER> WON'T EXPAND SECTION - RECORD INFORMATION
34872509	COPY OF BUG 34872501 - COPY OF BUG 34872494 - COPY OF 34827610 - INCORRECT VALUE APPLIED TO LONG INTERVAL ALARM IN MSCS

Bug Number	Description
34874399	COPY OF 34874395 - ERROR OBJECT SECTION IS MISSING IN THE SYNC RESPONSE AFTER UPGRADE
4880029	COPY OF 34773272 - COPY OF 34762319 - COPY OF
34709848	COPY OF 34533564 - VEE EXCEPTION RAISED - ZERO CONSUMPTION VEE RULES SHOULD NOT TRIGGERED ON ENERGIZED METERS
34880299	COPY OF 34490492 - COPY OF 34490476 - COPY OF
34355878	COPY OF 34333201 - COPY OF 34320670 - D1- MQTDS IS NOW LONGER TIMING-OUT BUT IS UNABLE TO PROCESS MC
34882841	COPY OF BUG 34686683 - DELETE EDIT USER DIVISION GENERATES "ONE DIVISION FOR A USER MUST BE SET AS PRIMARY" ERROR
34884741	COPY OF 34884740 - COPY OF 34830801 - MV90 PULSE MULTIPLIER NOT BEING APPLIED DURING IMPORT
34900541	CLOUD-ONPREMISE: FILE NOT PROCESS AND GENERATES ERROR WHEN PROCESSING FROM OUAF.
34900909	ILM: ADD PARALLELISM TO F1_ILMAD (BATCH CONTROL AND JAVA)
34902019	COPY OF BUG 34902017 - COPY OF BUG 34902016 - COPY OF BUG 34888346 - ACTIVITY TYPE LABEL NOT PRESENT IN ACTIVITY MAINTENANCE UI PAGE
34908176	COPY OF BUG 34945675 - MDM USAGE SUBSCRIPTION SEARCH BY ADDRESS ZONE RETURNS INCORRECT RESULTS
34910360	COPY OF BUG 34733709 - COPY OF BUG 34733707 - COPY OF BUG 34676818 - IMDS W/ READER REMARKS (NO READ) UPDATE MOST RECENT MSRMT DATE/TIME EVENT WITHOUT MSRMT
34917649	COPY OF 34917645 - CUT FOR NON PAYMENT ORCHESTRATOR ISSUING WRONG ACTIVITY
34919516	COPY OF BUG 34919513 - COPY OF BUG 34919511 - COPY OF BUG 34892314 - MEASUREMENT PORTAL - MEASUREMENT INFO STRING - DISPLAYS INCORRECT VALUE AND PRECISION
34921829	COPY OF 34789454 - OSB FOR MV90 IS NOT PROCESSING COMPLETE FILE

Bug Number	Description
34922333	TM POLLING SSN: APPLICATION DEFAULTED REQUEST SELECTION FOR MEASUREMENT DESTINATION CAUSING THE COMMAND TO COMPLETE AUTOMATICALLY
34929410	COPY OF BUG 34527570 - MSCS 21C BUG 34112835 - DEVICE QUERY SEARCH BY ADDRESS DOES NOT RETURN HEAD END SYSTEM DATA
34930236	COPY OF BUG 34512201 - SERVICE POINTS WITH SP TYPE CATEGORY METER OR ITEM DO NOT ALLOW THE DISPLAY OF MULTI-ITEM INFORMATION SECTION.
34948964	COPY OF 34948960 - COPY OF 34948959 - COPY OF
34883088	NAVIGATING FROM INSTALLED ITEMS/ EQUIPMENT TO SP IS NOT POSSIBLE IN CCS
34952080	COPY OF 34952064 - COPY OF 34952036 - COPY OF
34825326	ON DEMAND READ IWS RESPONSE DOESN'T HAVE USEABLE MSMTS BECAUSE THEIR MC ISN'T IDENTIFIED
34956455	COPY OF 34956451 - ACTIVITY RETRIES ARE NOT WORKING AS PER THE ACTIVITY TYPE CONFIGURATION
34965682	COPY OF 34947642 - SSN POLLING ENH: D7-ADDMETERREADJOBSCALARDRP BO POLLING ERROR STATE ERROR ON D1-WTTMOUT ALGO
34971757	ODMMDM INTEGRATION - D1-ODM-TMOT ALGORITHM TRANSITIONS AUTOMATICALLY TO SYNCHRONIZED
34990093	COPY OF BUG 34990091 - COPY OF BUG 34990088 - COPY OF BUG 34949879 - IMD BATCH DON'T FINALIZE IMDS AND STILL PENDING
34993444	COPY OF BUG 34971200 - UNABLE TO STOP SA IN 22A
34996276	COPY OF 34996267 - COPY OF 34960791 - DG ADAPTER - UNABLE TO CONVERT ELEMENT '/D1-INITIALLOADIMD/PREVEE/STDT' VALUE '2022-06-01-00.00.00' FROM XSD TO OUAF INTERNAL FORMAT
35000494	COPY OF 34890468 - 2.8 FA COMPLETION EVENT: UPDATE DEVICE LOCATION - NEW DEVICE DATA DETAILS - BADGE NUMBER NOT UPDATED
35009084	COPY OF ENH 34958345 - UNAVAILABILITY OF USAGE OF TOU MAPS IN COINCIDENT PEAK AND INDIVIDUAL SP DEMAND.

Bug Number	Description
35012879	COPY OF BUG 35001133 - DEVICE CHARS AND DEVICE TYPE VALID CHARS ARE NOT RENDERING PROPERLY
35019688	COPY OF BUG 35019687 - COPY OF BUG 35019678 - COPY OF BUG 35019674 - COPY OF BUG 35006539 - WEATHER DATA NOT FINALIZING TO MSCS
35022045	COPY OF BUG 35022037 - INITIAL MEASUREMENT DATA HISTORY: DATES ARE NOT IN SEQUENCE ACCORDING TO END DATE TIME
35029606	COPY OF 35029595 - COPY OF 35029594 - COPY OF 35028265 - DATACONNECT INTERVAL AMI EXTRACT CREATES MULTIPLE HEADERS
35033091	CHANGE THE LABEL TO SUBSCRIPTION IN ATTRIBUTE VALUES MAINTENANCE ZONE
35033097	COPY OF BUG 35054190 - CHARACTERISTICS TYPES ARE NOT FILTERED BY ENTITY IN THE DROPDOWN
35034599	COPY OF BUG 35034595 - COPY OF BUG 34948568 - 360 DEGREE VIEW - MEASUREMENT DATA GRAPH NOT VISIBLE
35047984	COPY OF 35032836 - CMA BATCH F1-MGTAP - ERRORING AFTER 22C PATCH
35048066	OUMDM-30352 MIGRATION PLAN - DEVICE TYPE SERVICE QUANTITY
35048869	IMD FAILS TO MOVE FROM PENDING WITH NPE
35048960	COPY OF 35048959 - COPY OF 35048958 - COPY OF 35022335 - REFERENCING BUG 34905019 SUB-USAGE TRANSACTION #2 NOT RECOGNIZING START TIME FROM PARENT UT
35055229	COPY OF BUG 35055215 - COPY OF BUG 35055177 - COPY OF BUG 34381762 - ISSUE WITH BILL PRINT BLEX PATCH
35059074	UGBUPD-12695 MSCS TOOLS: REMOVE UNWANTED IMDS - BOS
35074951	COPY OF BUG 35074950 - COPY OF BUG 35065190 - COPY OF BUG 34700448 - CSV UPLOAD PAGE ERRORS FOR STANDALONE MEASURING COMPONENT
35083546	COPY OF 35073238 - IMDS WENT INTO VEE EXCEPTION AFTER MV90 UPLOAD, <MCM> NODE IS MISSING AFTER PATCH CCS 22C MP3.1.0
35093726	UGBUPD-12695 - BATCH CONTROL - REMOVE NON-FINAL IMDS

Bug Number	Description
Oracle Utilities Customer to Meter	
34332748	CRISP - MIGRATE ADMIN - JAVA FIELD NAME OF READ-OUT TYPE LOOKUP VALUES IS NOT CAMEL CASE
34332770	FOR EACH CHAR TYPE HAVING METER/ITEM AS ENTITY DEVICE MUST BE ADDED TO ENTITY LIST
34332803	CRISP - MIGRATE ITEM AND MIGRATE SP BATCH EXECU- TION WITH X1DE MODE DELETING ALL THE MDM/ODM RECORDS
34561252	CROSS INSTALLED METER: OVERRIDE NAVIGATION OPTION FROM SUMMARY PROCESS FLOW PANEL
34657530	OUT OF SERVICE LOCATION ON DATA MIGRATION MAS- TER CONFIG GETS DELETED EACH TIME ADMIN MIGRA- TION IS EXECUTED
34720465	COPY OF 34637813 - 2.8 - ERROR "ASSET TYPE NOT FOUND" WHILE TRYING TO RETIRE THE ASSETS
34736927	DESIGN CHANGE: PREVENT MASTER DATA PK ON SERVICE TASK TYPE ADMIN
34748244	COPY OF 34748237 - COPY OF 34637736 - X1-MIGAD X1- MIGSA DIVISION FIELD IS NOT POPULATED ON THE CONVERTED USAGE SUBSCRIPTION
34748624	CONTORLLABLE DEVICE - HEAD END DEFAULTING HAPPENS ON UPDATE ACTION ON DEVICE PAGE.
34751929	[DACS] REMAINING FOLLOW-UP ITEMS ON DEVICE LOCATION AND CONTROLLABLE DEVICE
34754939	PROGRAM ID SHOULD BE INCLUDED IN "X1-PROGRAMELIGIBILITYANDQUALIFICATION" IWS RESPONSE
34761645	DESIGN CHANGE: REMOVE BADGE NUMBER VALIDATION UPON SERVICE TASK VALIDATION
34761914	UNENROLLMENT NOT SENDING SYNC REQUEST OUTBOUND MESSAGE TO OIC
34762168	ERROR WHILE CREATING ENROLL SERVICE TASK WITHOUT MONITOR IN PENDING STATE
34766558	COPY OF BUG 34766111 - MIGSM ERROR: ASSET-NODE_CHANDLER_ASSET MUST EITHER BE INSTALLED/ ASSOCIATED TO A LOCATION OR ATTACHED
34766636	X1-DASPE BATCH MOVES TO ERROR WHEN MORE THAN ONE ACTIVE NON ELIGIBLE CHILD SUBSCRIP- TIONS EXIST ON PARENT

Bug Number	Description
34767043	BUG TO TRACK "INITIATIVE - DIGITAL ASSET INITIATIVE" STORY ISSUES
34767177	CHANGE "USAGE SUBSCRIPTION" LABEL TO "PROGRAM SUBSCRIPTION" IN DACS - NMS DIGITAL ASSET CUSTOMER SYNC REQUEST SCREEN
34767826	ISSUES RELATED TO BRING YOUR OWN - CUSTOMER OWNED ASSETS
34767905	DESIGN CHANGE: DO NOT REPLACE FIELD ACTIVITY WITH A NEW ONE FOR X1AC DEVICE SETUP ACTION
34777172	COPY OF 34777168 - COPY OF 34718305 - X1-MIGP NULL- POINTEREXCEPTION - CANNOT HANDLE SCENARIO PERSON HAS NO ACCOUNT, MULTIPLE ISSUES
34780035	DESIGN CHANGE: PROGRAM SUBSCRIPTION AND DEVICE LOCATIONS ARE ACTIVE WHEN SERVICE TASK IS VALIDATED
34799764	COPY OF 34786645 - UNABLE TO UPDATE/ADD UNIT OF MEASURE(UOM) IF MEASURES PEAK QUANTITY FIELD IS SET TO YES/NO FROM UI
34818506	ON DELETING ASSET - ERROR IS THROWN IN FULL CONTEXT ZONE
34818853	COPY OF BUG 34737336 - X1-MIGSM ERROR - PLUGIN-DRIVENGENERICTHREADITERATIONWORKER - LIST HAS 2 REFERENCES WITH THE SAME KEYS
34825854	COPY OF 34812432 - CROSS INSTALLED METER: OCBG NOT SHOW UP DURING THE SWAP WHEN THE METER INSTALLATION MAY START LATER
34828627	COPY OF BUG 34828619 - CAN'T CANCEL INITIATING ACTIVITY F1 VALUE IS MISSING AND TRANSITION FROM TO STATUS…FAILED
34836500	PROGRAM SUBSCRIPTION - CHANGE EXTERNAL ID LABEL
34850159	COPY OF 34849480 - ADD NEW FIELD IN OCBG LIST FOR BILL SEGMENT SEQUENCE.
34850324	UNENROLLMENT STILL SENDING ACTIVE DEVICE STATUS
34850454	COPY OF BUG 34850442 - DELETE BO X1-EVENTPARTICAPATIONERROR
34871488	COPY OF 34768708 - INCORRECT RECORD RETRIEVED BY FK_REFERENCE CHARACTERISTIC

Bug Number	Description
34875498	COPY OF 34875493 - COPY OF 34835369 - X1-MIGP POPU- LATES INCORRECT CREATE DATE TIME VALUE FOR PER- SONS HAVING MULTIPLE MAIN ACCOUNTS.
34895782	POPULATE DETAILS TO THE SERVICE TASK AFTER DERIVING THE METERED SERVICE
34899792	DEVICE SCORES SHOULD NOT BE WITHIN THE QUOTES IN FILE GENERATED ON BATCH JOB RUN X1-SDCSE IN DACS
34916697	DEVICE WHICH ARE "INACTIVE" IN DACS, X1-SDCSE BATCH JOB SHOULD NOT PICK THE SCORES IN FILE
34930349	COPY OF 34498632 - INVALID ERROR WHILE UPDATING TOU MAP TEMPLATE
34934298	COPY OF BUG 34401902 - SQL QUERY NOT RETURNING ALL BILL CYCLE SCHEDULES
34934333	COPY OF BUG 34522046 - ITEM TYPE CALCULATION RULE DOES NOT WORK FOR METERED SERVICE POINTS.
34954282	COPY OF 34954274 - COPY OF 34954271 - COPY OF
34905019 - USAGE	REQUEST INTERVAL PROCESSING PERIOD NOT RECOGNIZED IN SUB USAGE TRANSAC- TION
34988982	COPY OF 34917993 - CMA - C1-MDM2PERSONSYNCRE- QUEST CREATING D1-CONTACT WHEN PERSON IS CRE- ATED DOES NOT CONSISTENTLY WORK
34996871	COPY OF 34978074 - UNABLE TO ADD/DELETE SP CHARCTERISTIC
35016377	[DACS] POST EVENT: [REFACTOR] MOVE EVENT EXT ID TO POST OUTCOME LIST
35038379	DACS - ADD DIVISION (DIGITAL ASSET MANAGEMENT) GENERATES AN ERROR
35040368	COPY OF 35028430 - VPD FOR MIGRATION PLAN INSTRUCTION MUST CHECK FOR CLIENT IDENTIFIER
35061184	COPY OF BUG 35061169 - X1-MIGSM BATCH IS NOT UPDATING THE ASSET STATUS AS 'IN STORE' FOR THE REMOVED IE RECORDS.
35061530	COPY OF 34855104 - UNABLE TO LAND ON SP PAGE FROM PREMISE CONTEXT MENU
35062532	DESIGN CHANGE - METERED SP TO BE STAMPED ON THE DEVICE LOCATION DURING DIGITAL ASSET ENROLLMENT

Bug Number	Description
35064531	COPY OF BUG 35064527 - COPY OF BUG 35064518 - COPY OF BUG 35063458 - ISSUE WAS FOUND ON A BILL SEG- MENT WITH A SINGLE UT
35068985	CTM-11400 PROGRAM SUBSCRIPTION CALCULATION GROUP - FALLBACK CALC GROUP
35081981	CTM-11378 DEFAULT PROGRAM SUBSCRIPTION MAIN CUSTOMER AND EXTERNAL ACCOUNT ID FROM METERED SERVICE
35085141	COPY OF 35085140 - COPY OF 34958869 - X1-MIGSA - EXTERNAL ACCOUNT ID NOT CORRECT IN D1_US_IDEN- TIFIER IF US_ID_TYPE_FLG IS D2EA
35094704	COPY OF 34788994 - PRE-EVENT CANCEL REASON NOT SHOWING CORRECTLY IN THE EVENT PARTICIPATION LOG

Appendix C

Post-release Patches

The following post-release patches are included in this Oracle Utilities Digital Asset Management release:

Bug	Description
Oracle Utilities Customer Care and Billing	
35111913	[BACKPORT] FR -ITEMS FOR DSS-SST: REST OPERATIONS & SELF-SERVICE TASK BOS (UGBUPD-12746)
35112871	INCORRECT URL COMPONENT VALUE FOR CCB CLOUD SERVICE IN HELP LINK CONFIGURATION EXT LOOKUP
35113922	[BACKPORT] CRITICAL FIXES FOR QUESTIONS RESPONSE PROCESSING (UGBUPD-12481) - MAR10
35148706	COPY OF 35148208 - CUSTOMER CONTACT ID NOT PASSED WHEN NAVIGATING FROM TO DO TO CUSTOMER CONTACT