Oracle Utilities Meter Data Management
Quick Install Guide
Release 2.1.0 Service Pack 3
E38614-04

May 2015
Preface

This guide provides an overview of installing Oracle Utilities Meter Data Management.

This preface contains these topics:

• Audience
• Related Documents
• Conventions
• Additional Resources

Audience

Oracle Utilities Meter Data Management Database Quick Installation Guide is intended for anyone interested in the process of installing Oracle Utilities Meter Data Management.

Related Documents

The following documentation is included with this release.

Installation, Configuration, and Release Notes
• Oracle Utilities Meter Data Management Release Notes
• Oracle Utilities Meter Data Management Quick Install Guide
• Oracle Utilities Meter Data Management Installation Guide
• Oracle Utilities Meter Data Management Database Administrator’s Guide
• Oracle Utilities Meter Data Management Configuration Guide

User Guides
• Oracle Utilities Meter Data Management User’s Guide
• Oracle Utilities Service and Measurement Data Foundation User’s Guide

Framework Documents
• Oracle Utilities Application Framework Release Notes
• Oracle Utilities Application Framework Business Process Guide
• Oracle Utilities Application Framework Administration Guide

Supplemental Documents
• Oracle Utilities Meter Data Management Batch Server Administration Guide
Conventions

The following text conventions are used in this document:

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

Additional Resources

To contact Oracle support, visit the Oracle Support Web site at:

http://www.oracle.com/support/index.html
This chapter provides an overview of the Oracle Utilities Meter Data Management product and installation process. It contains the following sections:

- Installation Overview
- Installation Components
- Installation Types
- Media Pack Components

**Installation Overview**

This section provides a high-level overview of the installation steps for Oracle Utilities Meter Data Management (MDM) and selected additional software. For more information, see the *Oracle Utilities Meter Data Management Installation Guide*.

**To Install Oracle Utilities Meter Data Management:**

1. Install all required third-party software.
2. Install the database. See *Oracle Utilities Meter Data Management Database Administrator's Guide* for complete details.
3. Install Oracle Utilities Application Framework (Application server only).
4. Install Oracle Utilities Application Framework Single Fixes
5. Install Oracle Utilities Service and Measurement Data Foundation (Application server only).
6. Install Oracle Utilities Meter Data Management (Application server only).
7. Install Oracle Utilities Meter Data Management Reports (this includes sample reports).
8. Generate Application Viewer items (this includes the Data Dictionary).
The following diagram provides an overview of the steps that need to be taken to install and configure Oracle Utilities Meter Data Management:

Refer to My Oracle Support for up-to-date additional information on Oracle Utilities Meter Data Management installation.
The Oracle Utilities Meter Data Management product installation consists of the following components:

- Database Components:
  - Oracle Utilities Application Framework database
  - Oracle Utilities Service and Measurement Data Foundation database
  - Oracle Utilities Meter Data Management database

- Application Components:
  - Oracle Utilities Application Framework application
  - Oracle Utilities Service and Measurement Data Foundation application
  - Oracle Utilities Meter Data Management application

For a successful installation, you must install ALL of the above components.
Installation Types

The first step in the installation procedure is to determine the installation type that meets your business requirements. The following are the possible installation types:

- **Initial Installation** - A base installation, typically used for a production environment
- **Demo Installation** - A base installation with pre-populated demo data, typically used for demonstration or training purposes
- **Upgrade Installation** - An upgrade installation from version 2.0.1.9 or version 2.1.0.1 or version 2.1.0.2 to version 2.1.0.3.

The following sections describe these installation types in detail.

**Initial Installation**

This installation type is applicable when installing Oracle Utilities Meter Data Management for the first time or from scratch. For an initial install, you must install all of the following components:

- **Database components:**
  - Refer to the “Initial Install” section of the *Oracle Utilities Meter Data Management Database Administrator’s Guide* for more information.
- **Application components:**
  - Oracle Utilities Application Framework application
  - Oracle Utilities Application Framework Single Fix Pre-Requisite Rollup for Oracle Utilities Service and Measurement Data Foundation
  - Oracle Utilities Service and Measurement Data Foundation application
  - Oracle Utilities Meter Data Management application

Refer to chapter “Installing Oracle Utilities Meter Data Management - Initial Installation” of the *Oracle Utilities Meter Data Management Installation Guide* for the steps involved in installing each of the above components.

**Demo Installation**

This installation type is applicable when installing a demo application of Oracle Utilities Meter Data Management for demonstration or training purposes. For a demo install, you must install all of the following components:

- **Demo Database components:**
  - Refer to the “Demo Install” section of the *Oracle Utilities Meter Data Management Database Administrator’s Guide* for more information.
- **Application components:**
  - Oracle Utilities Application Framework application
  - Oracle Utilities Application Framework Single Fix Pre-Requisite Rollup for Oracle Utilities Service and Measurement Data Foundation
  - Oracle Utilities Service and Measurement Data Foundation application
  - Oracle Utilities Meter Data Management application

Refer to chapter “Installing Oracle Utilities Meter Data Management - Demo Installation” of the *Oracle Utilities Meter Data Management Installation Guide* for the steps involved in installing each of the above components.
Upgrade Installation

This installation type is applicable when upgrading Oracle Utilities Meter Data Management from version 2.0.1.9 or version 2.1.0.1 or version 2.1.0.2. For an upgrade, you must upgrade all of the following components:

**Note:** Customers who have a version prior to 2.0.1.9 must install 2.0.1.9 before upgrading to 2.1.0.3.

- Database components:
  Refer to the “Upgrade Install” section of the Oracle Utilities Meter Data Management Database Administrator’s Guide for more information.

- Application components:
  - Oracle Utilities Application Framework application
  - Oracle Utilities Application Framework Single Fix Pre-Requisite Rollup for Oracle Utilities Service and Measurement Data Foundation
  - Oracle Utilities Service and Measurement Data Foundation application
  - Oracle Utilities Meter Data Management application

Refer to chapter “Upgrading Oracle Utilities Meter Data Management” in the Oracle Utilities Meter Data Management Installation Guide for the steps involved in upgrading each of the above components.

Media Pack Components

The Oracle Utilities Meter Data Management Media Pack consists of the following packages:

Documentation Packages

- Oracle Utilities Meter Data Management V2.1.0.3 Release Notes
- Oracle Utilities Meter Data Management V2.1.0.3 Quick Install Guide
- Oracle Utilities Meter Data Management V2.1.0.3 Install Documentation
- Oracle Utilities Meter Data Management V2.1.0.3 User Documentation
- Oracle Utilities Meter Data Management V2.1.0.3 Supplemental Documentation

Installation Packages

- Oracle Utilities Application Framework V4.2.0 Service Pack 3 Multiplatform
- Oracle Utilities Application Framework V4.2.0 Service Pack 3 Single Fix Prerequisite Rollup for SMDF V2.1.0.3.0
- Oracle Utilities Service and Measurement Data Foundation V2.1.0.3.0 Multiplatform
- Oracle Utilities Meter Data Management V2.1.0.3.0 Multiplatform
- Oracle Utilities Meter Data Management V2.1.0.3.0 Oracle Database
- Oracle Utilities Meter Data Management V2.1.0.3.0 Reports
- Oracle Utilities Meter Data Management V2.1.0.3.0 Bugs PFD
Chapter 2

Supported Platforms and Hardware Requirements

This chapter includes the following details:

• Operating Systems and Application Servers
• Hardware and Web Browser Requirements
• Application Server Memory Requirements
• Additional Notes on Supported Platforms
• Support for Software Patches and Upgrades
## Operating Systems and Application Servers

The following table details the operating system and application server combinations on which this version of Oracle Utilities Meter Data Management is supported.

<table>
<thead>
<tr>
<th>Operating System and Web Browser (Client)</th>
<th>Operating System (Server)</th>
<th>Chipset</th>
<th>Application Server</th>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 7 (Internet Explorer 8.x, 9.x, or 10.x, 11 in Compatibility Mode)</td>
<td>AIX 7.1 TL01</td>
<td>POWER 64-bit</td>
<td>WebLogic 10.3.6</td>
<td>Oracle 11.2.0.1+</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WebLogic 12.1.3.0+</td>
<td>Oracle 12.1.0.1+</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WebSphere 8.5/8.5.5</td>
<td></td>
</tr>
<tr>
<td>Windows 8.1 (Internet Explorer 11 in Compatibility Mode)</td>
<td>Oracle Linux 5.x, 6.x, 7.x (64-bit) (based on Red Hat Enterprise Linux (64-bit))**</td>
<td>x86_64</td>
<td>WebLogic 10.3.6</td>
<td>Oracle 11.2.0.1+</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WebLogic 12.1.3.0+</td>
<td>Oracle 12.1.0.1+</td>
</tr>
<tr>
<td></td>
<td>Oracle Solaris 10</td>
<td>SPARC</td>
<td>WebLogic 10.3.6</td>
<td>Oracle 11.2.0.1+</td>
</tr>
<tr>
<td></td>
<td>Oracle Solaris 11</td>
<td></td>
<td>WebLogic 12.1.3.0+</td>
<td>Oracle 12.1.0.1+</td>
</tr>
<tr>
<td></td>
<td>(64-bit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows Server 2008 R2</td>
<td></td>
<td>x86_64</td>
<td>WebLogic 10.3.6</td>
<td>Oracle 11.2.0.1+</td>
</tr>
<tr>
<td>Windows Server 2012 R2 (64-bit)</td>
<td></td>
<td></td>
<td>WebLogic 12.1.3.0+</td>
<td>Oracle 12.1.0.1+</td>
</tr>
</tbody>
</table>

* A plus sign (+) after the fourth digit in the version number indicates that this and all higher versions of WebLogic are supported. For example, 12.1.3.0+ means that 12.1.3.0 and any higher 12.1.3.x.x versions are supported.

** Oracle Utilities Meter Data Management is supported on the versions of Oracle Linux specified. Because Oracle Linux is 100% userspace-compatible with Red Hat Enterprise Linux, Oracle Utilities Meter Data Management also is supported on Red Hat Enterprise Linux for this release.

The platforms listed above are current at the time of release. For the most current supported platforms, please refer to Oracle Utilities Product Matrix on My Oracle Support (MOS) Knowledge Article (Doc ID 1454143.1).
Hardware and Web Browser Requirements

Client Side Hardware Requirements

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Processor</th>
<th>Memory (RAM)</th>
<th>Monitor (Display)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>Pentium IV - 2.0 GHz</td>
<td>1024 MB</td>
<td>1024x768** 16-bit Color</td>
</tr>
<tr>
<td>Recommended*</td>
<td>Pentium IV -3.0+ GHz, (or) any Core 2 Duo (or) any Athlon X2</td>
<td>2048 MB</td>
<td>1280x1024** 32-bit Color</td>
</tr>
</tbody>
</table>

* The Recommended configuration supports better performance of the client.

** To reduce the amount of scrolling required for pages that are longer than 768 or 1024 pixels, consider placing a monitor into vertical position (with narrow side on the bottom).

Web Browser Requirements

The following operating system / web browser software is supported:

- Windows 7 (32-bit or 64-bit) with Internet Explorer 8.x, 9.x, or 10.x, 11
- Windows 8.1 with Internet Explorer 11

**Note:** Internet Explorer 8.x, 9.x, 10.x and 11 must have Compatibility Mode enabled.

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.

Disk Space Requirements

The approximate disk space requirements in a standard installation are as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Size</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$SPLEBASE</td>
<td>5 GB</td>
<td>This is the location where the application and framework get installed. Startup, shutdown and other online log files are stored here. The size and space that is used should be monitored because various debugging options can significantly affect the size of log files.</td>
</tr>
<tr>
<td>$SPLAPP</td>
<td>2 GB</td>
<td>This location is 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.</td>
</tr>
<tr>
<td>Location of the application Web work files on the Web servers</td>
<td>1.5 GB</td>
<td>This location is used by the 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.</td>
</tr>
</tbody>
</table>
Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will periodically issue patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle products have already been tested against.

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 production environment itself.

The exception from this rule is Hibernate software version 4.1.0. This version should not be upgraded.

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

<table>
<thead>
<tr>
<th>Location</th>
<th>Size</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation temporary area</td>
<td>4 GB</td>
<td>The application gets installed from this location. You need enough space to uncompress the files and install the application.</td>
</tr>
<tr>
<td>Oracle data area</td>
<td>4 GB minimum</td>
<td>This 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.</td>
</tr>
</tbody>
</table>

Additional Notes on Supported Platforms

**Oracle Database Server** - This version of Oracle Utilities Meter Data Management is certified on Oracle Database Server 11.2.0.1+ and 12.1.0.1+ and on the operating systems listed in the section above. The following version of the database is supported:

- Oracle Database Enterprise Edition

  **Note:** Oracle Database Enterprise Edition and the Partitioning and Advanced Compression options are strongly recommended in all situations.

**Oracle VM Support** - This version of Oracle Utilities Meter Data Management is supported on Oracle VM Server for x86 for supported releases of Oracle Linux and Microsoft Windows operating systems.

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

Support for Software Patches and Upgrades
Chapter 3
Planning the Installation

This chapter provides information for planning an Oracle Utilities Meter Data Management installation, including:

• Before You Install
• Prerequisite Software List
• Installing Prerequisite Software
• Readiness Checklist

Before You Install

Refer to My Oracle Support for up-to-date additional information about installing Oracle Utilities Meter Data Management.

Application Server Clustering

If you are considering application server clustering, refer to the following whitepapers, available on My Oracle Support, for additional information:

• Implementing Oracle ExaLogic and/or Oracle WebLogic Clustering (Doc Id: 1334558.1)
• IBM WebSphere Clustering for Oracle Utilities Application Framework (Doc Id: 1359369.1)

Additional information about Weblogic clustering can be found at http://docs.oracle.com/cd/E17904_01/web.1111/e13709/toc.htm

Prerequisite Software List

Before you install Oracle Utilities Meter Data Management, you must install prerequisite software.

Refer to the respective installation documentation of the software for instructions on downloading and installing.

Prerequisite Software for Database Server

The prerequisite software for the database component of Oracle Utilities Meter Data Management is as follows:

• Oracle Database Server 11.2.0.1+ or 12.1.0.1+ - This is required for installing the database component of the Oracle Utilities Meter Data Management product. The following version of the database server is supported:
  • Oracle Database Enterprise Edition
Note: Oracle Database Enterprise Edition and the Partitioning and Advanced Compression options are strongly recommended in all situations.

The follow database feature is required:

- Oracle Locator

Note: Oracle Spatial is not required.
Prerequisite Software for Application Server

The prerequisite software for the application component of Oracle Utilities Meter Data Management is as follows:

- Oracle Database 11.2.0.x\12.1.0.1 Client
- JDK 1.6.0_25+ (64-bit)
- JDK 1.7.0_55+ (64-bit) - required for Oracle WebLogic 12c
- Oracle WebLogic 11gR1 (10.3.6) or 12c (12.1.3.0+)
- Hibernate 4.1.0 Final

Web Browser Requirements

The following operating system / web browser software is supported:

- Windows 7 (32-bit or 64-bit) with Internet Explorer 8.x, 9.x, or 10.x, 11
- Windows 8.1 with Internet Explorer 11

Note: Internet Explorer 8.x, 9.x, 10.x and 11 must have Compatibility Mode enabled.

Installing Prerequisite Software

Refer to the section “Installing Prerequisite Software” in the Oracle Utilities Meter Data Management Installation Guide for detailed instructions on installing the prerequisite software.

Readiness Checklist

The following checklist will guide you through the installation process of Oracle Utilities Meter Data Management. The details for each step are presented in the Oracle Utilities Meter Data Management Installation Guide.

1. Confirm recommended hardware is ready. Refer to Supported Platforms and Hardware Requirements for more details.
2. Install prerequisite software, refer to Prerequisite Software List for more details.
3. Ensure that you have downloaded Oracle Utilities Meter Data Management components.
4. Go through the installation and configuration worksheets to understand the configuration menu.
5. Determine type of the installation:
   - Initial Installation - For initial installation follow the instructions mentioned in Oracle Utilities Meter Data Management Installation Guide.
   - Demo Installation - For demo installation follow the instructions mentioned in Oracle Utilities Meter Data Management Installation Guide.
   - Upgrade Installation - For upgrade installation from V2.0.1.9 or V2.1.0.1 or V2.1.0.2, follow the instructions mentioned in Oracle Utilities Meter Data Management Installation Guide.
Chapter 4

Installing Oracle Utilities Meter Data Management - Initial Installation

This chapter provides an overview of installing Oracle Utilities Meter Data Management from scratch. This chapter includes:

- Before You Install
- Initial Installation Procedure

Before You Install

Refer to My Oracle Support for up-to-date additional information on Oracle Utilities Meter Data Management.

Initial Installation Procedure

The initial installation procedure consists of:

- Database Component Installation
- Application Components Installation

Database Component Installation

Installation of the database component of Oracle Utilities Meter Data Management must be complete before you can proceed with the following sections. Refer to the section “Initial Install” of the Oracle Utilities Meter Data Management Database Administrator’s Guide, which provides instructions on installing the database component.

Application Components Installation

Refer to the chapter “Installing Oracle Utilities Meter Data Management - Initial Installation” of the Oracle Utilities Meter Data Management Installation Guide, which provides instructions on installing the application components.
Chapter 5

Installing Oracle Utilities Meter Data Management - Demo Installation

This chapter provides an overview of the instructions for setting up a demo application of Oracle Utilities Meter Data Management useful for demonstration or training purposes. This chapter includes:

• Before You Install
• Demo Installation Procedure

Before You Install

Refer to My Oracle Support for up-to-date additional information on Oracle Utilities Meter Data Management.

Demo Installation Procedure

The demo installation procedure consists of:

• Database Component Installation
• Application Components Installation

Database Component Installation

Installation of the database component of Oracle Utilities Meter Data Management must be complete before you can proceed with the following sections. Refer to the section “Demo Install” of the Oracle Utilities Meter Data Management Database Administrator’s Guide, which provides instructions on installing the database component with pre-populated demo data.

Application Components Installation

Refer to the chapter “Installing Oracle Utilities Meter Data Management - Demo Installation” of the Oracle Utilities Meter Data Management Installation Guide, which provides instructions on installing the application components.
This chapter provides an overview of upgrading Oracle Utilities Meter Data Management from V2.0.1.9 or V21.0.1 or V2.1.0.2. This chapter includes:

- Before You Upgrade
- Upgrade Procedure

Before You Upgrade

Review the list of operating system, application server and database server combinations that Oracle Utilities Meter Data Management is certified to operate on, in the chapter Supported Platforms and Hardware Requirements.

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

Upgrade Procedure

The initial installation procedure consists of:

- Database Component Upgrade
- Application Components Upgrade

Database Component Upgrade

Upgrade of the database component of Oracle Utilities Meter Data Management must be complete before you can proceed with the following sections. Refer to the chapter “Upgrade Install” of the Oracle Utilities Meter Data Management Database Administrator’s Guide, which provides instructions on upgrading the database component.

Application Components Upgrade

Refer to the chapter “Upgrading Oracle Utilities Meter Data Management” of the Oracle Utilities Meter Data Management Installation Guide, which provides instructions on installing the application components.
Please read this section and the follow directions if you purchased a license from Oracle for Oracle WebLogic.

**Oracle WebLogic**

Customers must download Oracle WebLogic Server from the Oracle Software Delivery Cloud. The version of Oracle WebLogic Server is in the Oracle Utilities Meter Data Management Supported Platforms Summary section.

**Note:** If you install a temporary license for Oracle WebLogic, please note that this license is limited to 5 non-current users. You will need to install the full license.

**Install the Oracle WebLogic license**

To apply a full license you will need to complete the following steps:

1. The license keys for Oracle WebLogic products are located at:  
   http://licensecodes.oracle.com/bea.html


4. Shut down the Oracle Utilities Meter Data Management application server.

5. Follow the instructions from the Oracle WebLogic installation document to install the license key.

6. Start the Oracle Utilities Meter Data Management application server.
Appendix B

Oracle Utilities Meter Data Management Licensing Restrictions

This guide outlines licensing restrictions related to Oracle Utilities Service and Measurement Data Foundation, including:

• License Restrictions Matrix
• Service and Measurement Data Foundation Functionality
License Restrictions Matrix

The Oracle Utilities Service and Measurement Data Foundation provides functionality used by multiple Oracle Utilities products, including Oracle Utilities Meter Data Management and Oracle Utilities Smart Grid Gateway. Some of the functionality provided with the Oracle Utilities Service and Measurement Data Foundation is restricted, and can only be used if specific products have been licensed. The table below indicates the specific functional areas included with each of the listed products based on the Oracle Utilities Service and Measurement Data Foundation.

- “✓” indicates that the functional area is included with the product.
- “✓*” indicates that the functional area is included with the product, but in order to use the functionality customers must license additional products. For example, a customer licensing Oracle Utilities Meter Data Management who wishes to use information lifecycle management must also license Information Lifecycle Management for Meter Data.
- “X” indicates that the functional area is not included with the product.

In order to use functionality listed as “not included”, customers must license the product that includes the desired functionality. For example, a customer licensing Oracle Utilities Smart Grid Gateway who wishes to perform validation, editing, and estimations on incoming measurement data must also license Oracle Utilities Meter Data Management.

- “C” indicates that customers can develop custom implementations and interfaces to support this functionality. Note that use of any base package business objects (and related algorithms, business services, etc.) provided with the Oracle Utilities Service and Measurement Data Framework to support this functionality is prohibited unless the customer has also licensed Oracle Utilities Smart Grid Gateway. Refer to the Oracle Utilities Meter Data Management and Oracle Utilities Smart Grid Gateway configuration guides for information about the business objects available for use only with Oracle Utilities Smart Grid Gateway.

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Oracle Utilities Meter Data Management</th>
<th>Oracle Utilities Smart Grid Gateway</th>
<th>Restricted Use Oracle Utilities Meter Data Management*</th>
<th>Oracle Utilities Analytics</th>
<th>Oracle Utilities Customer Self Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement and Service Data Model</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Validation, Editing, and Estimation Functionality</td>
<td>✓</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Restricted to:
- Interval Size Validation, Interval Spike Check, and Interval Averaging Estimation

Measurement Services

- Limited to interval measurement services

Usage and Bill Determinant Calculations

- Limited to interval rules

Information Lifecycle Management for Meter Data

<table>
<thead>
<tr>
<th>Oracle Utilities Meter Data Management</th>
<th>Oracle Utilities Smart Grid Gateway</th>
<th>Restricted Use Oracle Utilities Meter Data Management*</th>
<th>Oracle Utilities Analytics</th>
<th>Oracle Utilities Customer Self Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>✓</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Oracle Utilities Meter Data Management Licensing Restrictions B-2
Service and Measurement Data Foundation Functionality

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Oracle Utilities Meter Data Management</th>
<th>Oracle Utilities Smart Grid Gateway</th>
<th>Restricted Use Oracle Utilities Meter Data Management**</th>
<th>Oracle Utilities Analytics</th>
<th>Oracle Utilities Customer Self Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Intelligence</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Customer Self Service</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Usage and Event Upload Statistics Processing</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Smart Meter Command Processing</td>
<td>C</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Outage Integration</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Service Order Management</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DataConnect</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**A license to Oracle Utilities Customer Care & Billing Rating & Billing for Interval Data includes licenses to Oracle Utilities Meter Data Management and Oracle Utilities Customer Care and Billing Integration to Oracle Utilities Meter Data Management. See Oracle Utilities Customer Care and Billing License Information User Guide for more information.

Service and Measurement Data Foundation Functionality

The table below describes the functional areas provided with the Oracle Utilities Service and Measurement Data Foundation.

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement and Service Data Model</td>
<td>The measurement and service data model contains database tables and related functionality used to define and store meters, devices, unmetered items, service points, and measurement data.</td>
</tr>
<tr>
<td>Validation, Editing, and Estimation Engine</td>
<td>The VEE engine provides the core functionality used to perform validation, editing, and estimation on usage data. Specific VEE rules are included with Oracle Utilities Meter Data Management.</td>
</tr>
<tr>
<td>Measurement Services</td>
<td>Measurement services are used to process meter reading data and manipulate measurements to support billing or other downstream processes.</td>
</tr>
<tr>
<td>Usage and Bill Determinant Calculations</td>
<td>The usage engine and generic usage rules provide the core functionality used to perform usage calculations based on measurement data. Specific usage rules are included with Oracle Utilities Meter Data Management.</td>
</tr>
<tr>
<td>Information Lifecycle Management for Meter Data</td>
<td>Oracle Utilities Information Lifecycle Management for Meter Data contains a set of processes to support Information Lifecycle Management (ILM) for a number of high volume transactional data objects. The processes identify eligible historical records to facilitate the migration of data to lower cost storage or archived database.</td>
</tr>
</tbody>
</table>

Note: Oracle Database Enterprise Edition and the Partitioning option are prerequisites for this option.
<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Intelligence</td>
<td>Base package batch processes used to extract and load data for use in business intelligence applications.</td>
</tr>
<tr>
<td>Customer Self Service</td>
<td>Web services used to access data via the Oracle Utilities Customer Self Service application.</td>
</tr>
<tr>
<td>Usage and Event Upload Statistics Processing</td>
<td>Processing and compiling upload statistics related to upload of usage and device events.</td>
</tr>
<tr>
<td>Smart Meter Command Processing</td>
<td>Executing smart meter commands and communicating with a head-end system for purposes of issuing commands such as remote connect, commission meter, etc.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Customers who license Oracle Utilities Meter Data Management can build custom interfaces to AMI vendor head-end systems to support smart meter command processes. However, use of the command business objects (and related objects) included with the Oracle Utilities Service and Measurement Data Foundation without licensing Oracle Utilities Smart Grid Gateway is prohibited. Refer to the <a href="#">Oracle Utilities Smart Grid Gateway Configuration Guide</a> for more information about command business objects.</td>
</tr>
<tr>
<td>Outage Integration</td>
<td>Communicating with Oracle Utilities Network Management System, including sending/receiving bulk ping commands, receiving device events from Oracle Utilities Smart Grid Gateway, and suppression of device event notifications (allowing a suppression activity to be configured for a meter or service point so that specified device event notifications will not be sent to Oracle Utilities Network Management System).</td>
</tr>
<tr>
<td>Service Order Management</td>
<td>Orchestration of service orders that involve field work and/or smart meter commands through integration with customer information systems, mobile field work systems, and head-end systems.</td>
</tr>
<tr>
<td>DataConnect</td>
<td>Components used to extract interval measurements data and master data for integration with external energy management systems.</td>
</tr>
</tbody>
</table>