

**Oracle Utilities Smart Grid Gateway  
MV90 Adapter for Itron**

User's Guide

Release 2.0.0 Service Pack 8

**E20529-03**

November 2012

Oracle Utilities Smart Grid Gateway MV90 Adapter for Itron User's Guide

Release 2.0.0 Service Pack 8

E20529-03

November 2012

Copyright © 2012, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

**U.S. GOVERNMENT RIGHTS**

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third party content, products and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third party content, products or services.

---

# Contents

<b>Getting Started.....</b>	<b>4</b>
About Oracle Utilities Smart Grid Gateway.....	4
Starting the Application.....	4
Understanding the User Interface.....	5
Menus and Navigation.....	5
Oracle Utilities Smart Grid Gateway Menu Options.....	6
<b>User Documentation.....</b>	<b>7</b>
Meter Readings and Events.....	7
Understanding Meter Readings and Events.....	7
About Meter Readings and Events.....	7
Working with Meter Readings and Events.....	8
Searching and Viewing Initial Measurement Data.....	8
Searching and Viewing Device Events.....	9
<b>Reference Topics.....</b>	<b>10</b>
Standard Actions for Data Maintenance.....	10
Viewing and Adding Log Entries.....	11
<b>FAQs.....</b>	<b>12</b>
How Do I...?.....	12
What's the Difference Between...?.....	12

# Chapter 1

---

## Getting Started

This section provides an overview of Oracle Utilities Smart Grid Gateway.

### About Oracle Utilities Smart Grid Gateway

---

Oracle Utilities Smart Grid Gateway acts as a link between hardware and software within smart grid infrastructures. It provides functionality for interfacing between Oracle Utilities products such as Oracle Utilities Customer Care and Billing and Oracle Utilities Meter Data Management, and a variety of smart meter products. Use the Smart Grid Gateway to execute several meter commands, communicate with meters, and to view meter read information.

#### About Oracle Utilities Smart Grid Gateway MV-90 Adapter for Itron

The Oracle Utilities Smart Grid Gateway MV-90 Adapter for Itron provides functionality for interfacing between Oracle Utilities products such as Oracle Utilities Customer Care and Billing and Oracle Utilities Meter Data Management, and MV-90 advanced metering systems.

Oracle Utilities Smart Grid Gateway MV-90 Adapter for Itron supports the following business processes:

- Loading of meter readings and events from MV90 meters
- Commissioning and decommissioning meters remotely
- Connecting and disconnecting meters remotely
- Reading meters on-demand

### Starting the Application

---

Use this procedure to start Oracle Utilities Smart Grid Gateway.

1. Click the desktop icon or program menu option to start the Oracle Utilities Smart Grid Gateway server application.
2. Log in using your user ID and password.

3. If prompted, select a language.
4. Use the toolbar or menu bar (on the left edge of the screen) to select the function you want to perform.

## Understanding the User Interface

---

For information about the main application toolbar, menu system, user setup and security, and user interface standards, see the System Wide Standards topic in the Oracle Utilities Application Framework Business Processes online help.

### Menus and Navigation

This topic describes the Oracle Utilities Smart Grid Gateway menus and general rules for navigating the system.

#### Main Menu and Admin Menu

The Oracle Utilities Smart Grid Gateway menu is displayed on the left-hand side of the application screen. The menu is configurable, so the options that appear may vary based on your user profile and your system configuration. Your user profile also controls your access to different portals and dashboard zones.

By default, the system provides two menus: the Admin menu and the Main menu. The Admin menu provides access to functions used for setup and administration. Only users with administrative privileges can view this menu. The Main menu provides access to all other functions.

The Main Menu is displayed by default. Click the **Menu** icon in the main toolbar to display a list of available menus, then select the menu you want to use. The selected menu appears on the left-hand side of the screen.

#### Functional and Alphabetical Menus

The system supports two different menu styles: alphabetical and functional. The style used is specified on the Main tab of the Installation Options - Framework portal.

The functional menu groups menu options by the function, such as Device, Device Installation, and Usage Rules. Thus, to add a new Usage Rule, you would first click the Usage submenu, and then select the Usage Rule option.

The alphabetical menu groups menu options by the first letter of the option name. Thus, to add a new Usage Rule, you would first click the U submenu, and then select the Usage Rule option.

The procedures outlined in this documentation assume that you are using the functional menus. If you are using alphabetical menus instead, simply replace the functional submenu with the alphabetical submenu. For example, if the procedure instructs you to select:

**Main Menu > Usage > Usage Rule**

then you would instead select:

**Main Menu > U > Usage Rule**

The menu system provides access to Oracle Utilities Application Framework functions, Oracle Utilities meter data framework, and Oracle Utilities Smart Grid Gateway functions. If you have additional Oracle Utilities applications installed, the menu system provides access to functions for that application as well. Framework functions are described in the Framework online help; Framework help topics are listed under the appropriate Framework heading in the help contents panel. Likewise, Oracle Utilities meter data framework topics are listed in the help contents panel under the appropriate Oracle Utilities meter data framework heading.

#### Navigating to Portals in Add or Edit Mode

Most menu options display a + sign next to the option name. If you click the plus sign, rather than the option name, you will go directly to a screen that allows you to add a new record.

For example, if you click the plus sign next to the **Usage Rule** option, the system navigates to the Usage Rule add/edit screen so you can begin creating a new Usage Rule. This is referred to as 'navigating to the Usage Rule portal in add mode.' In this online help, using this option will be notated as **Usage Rule+**.

If you click the option name, rather than the + sign, the system navigates to a search portal, where you can select the entity you want to view or edit. (For admin-level data maintenance, the system navigates to a screen that lists the entities and allows you to select one from the list.) This is referred to as 'navigating to the Usage Rule portal in edit mode.' Once you have found the entity you want to work with, the system displays a maintenance portal listing all the actions you can perform on that entity. The valid options vary depending on the entity, your user privileges, and your system configuration. Standard actions typically include Edit, Duplicate, and Delete, but other actions may be available depending on the configuration of the entity. Valid actions also typically include changes to the entity's status.

## Oracle Utilities Smart Grid Gateway Menu Options

Oracle Utilities Smart Grid Gateway does not include any base menu options that are not also part of Oracle Utilities meter data framework. Please refer to the Oracle Utilities Application Framework online documentation for descriptions of these menu options. Online documentation for all functions listed is provided under the corresponding topic on the online help contents panel.

**Note:** An implementation can add or remove any of these functions from the menu system, change the menu option name or the submenus where they appear, or restrict access to the options for some or all users.

# Chapter 2

---

## User Documentation

This section describes the application functions that support day-to-day operations. These functions are available from the Oracle Utilities Smart Grid Gateway application Main Menu.

### Meter Readings and Events

---

This section describes concepts and procedures related to meter activities such as searching and viewing initial measurement data and viewing device events.

#### Understanding Meter Readings and Events

Concepts related to meter readings and events:

##### About Meter Readings and Events

The Oracle Utilities Smart Grid Gateway MV-90 Adapter for Itron supports import of meter reading information and device event creation based on status codes for MV-90 head-end systems. This enables the data to eventually be loaded into the applicable edge applications such as Oracle Utilities Meter Data Management or Oracle Utilities Customer Care and Billing.

**Meter Readings** consist of measurements taken from a device to show how much of the quantity measured was consumed.

**Events** refer to occurrences which take place relative to a meter. These can include power outages, power restorations, tampering alerts, command completions and other events.

Attributes used to define events include:

- **Device event type.**
- **Date and time** of the event. For events with a duration such as a power outage, this is the start date and time of the duration. This value is not applicable to events with no duration, such as a tampering alert or power restoration.
- **End date and time** of the event. For events with a duration such as a power outage, this is the end date and time of the duration. This value is not applicable to events with no duration, such as a tampering alert or power restoration.

In addition, device events also reference details specific to the head-end system that sent the event, including the following:

- The **head-end system** (defined as a service provider in Oracle Utilities Smart Grid Gateway) from which the event was sent.
- **External ID** for the head-end system that sent the event.
- **External, head-end-specific name** for the event. This name is translated into a "standard" event name within Oracle Utilities Smart Grid Gateway.
- An **identifier** for the source of the event.

Refer to the Oracle Utilities meter data framework online help for more information about working with meter readings and events.

## Working with Meter Readings and Events

Common tasks related to working with meter readings and events:

### Searching and Viewing Initial Measurement Data

Use this procedure to search for and view initial measurement data.

Use the Initial Measurement portal to view initial measurement data.

To view initial measurement data:

1. Select **Main Menu > Initial Measurement Data**.
2. Enter your search criteria.  
Base package search options include measuring component/device, and initial measurement data identifier.
3. Click **Refresh**.
4. In the search results list, click the link for the initial measurement data you want to view.  
The select initial measurement is displayed in the Initial Measurement portal.
5. To view the service provider for the initial measurement data, click the Service Provider link.
6. Click the link for the initial measurement data you wish to view.  
The initial measurement opens in the Initial Measurement portal.
7. To view details of an exception, click the **Broadcast** icon in the Open Exception Summary zone. The broadcast exception opens in the Initial Measurement Exception Detail zone.
8. To perform an action, click the appropriate button.

The specific actions available for a measurement are based on the current status of the measurement, and the measurement business object. The statuses in which each action are allowed are listed in parentheses. Action options include the following:

Action	Description
<b>Trace</b>	Turns Trace On or Off (Allowed Status: All)
<b>Edit</b>	Allows user to edit the initial measurement. (Allowed Status: Pending, Error)
<b>Delete</b>	Deletes the initial measurement. (Allowed Status: Pending, Error)
<b>Re-Process</b>	(Allowed Status: Error)
<b>Discard</b>	Discards the initial measurement. (Allowed Status: Error, Exception)

9. To view an individual final measurement, click the measurement in the Measurements of Initial Measurement zone. The selected measurement opens in the Measurement zone.



## Searching and Viewing Device Events

Use this procedure to search for device events on the Device Events Query portal.

Device events are usually imported into the application from a head-end system. Use the following procedure to review the events for a device.

1. Select **Main Menu > Communication > Device Event** .
2. Enter your search criteria.  
Base package search options include device and device event ID.
3. Click **Refresh**.
4. In the search results list, click the link for the device event you want to review.

# Chapter 3


## Reference Topics


This section provides reference information to support tasks.

### Standard Actions for Data Maintenance

This topic provides the basic steps for performing standard actions on data maintained from the Main Menu.

**Note:** The system displays buttons for all valid actions, based on the object's current status, your user privileges, and your system's configuration. The following table provides instructions for performing all standard actions.

Action	Steps
Edit	<p>From the Main Menu:</p> <ol style="list-style-type: none"><li>1. Select the option for the object you want to maintain. A query portal is displayed.</li><li>2. Enter search criteria to locate the object. The maintenance portal is displayed.</li><li>3. Click the <b>Edit</b> button in the Record Actions section.</li><li>4. Enter your changes. Click  to display field descriptions.</li><li>5. Click <b>Save</b>.</li></ol>
Delete	<p>From the Main Menu:</p> <ol style="list-style-type: none"><li>1. Select the option for the object you want to delete. A query portal is displayed.</li><li>2. Enter search criteria to locate the object. The maintenance portal is displayed.</li><li>3. Click the <b>Delete</b> button in the Record Actions section. A confirmation dialog opens asking you to confirm the deletion of the record. Click <b>OK</b> to delete the object.</li></ol>

Action	Steps
Duplicate	<p>From the Main Menu:</p> <ol style="list-style-type: none"> <li>1. Select the option for the object you want to duplicate. A query portal is displayed.</li> <li>2. Enter search criteria to locate the object. The maintenance portal is displayed.</li> <li>3. Click the <b>Duplicate</b> button in the Record Actions section. A new record is created and the Add/Edit screen is displayed. Key fields will be cleared in the new record.</li> <li>4. Complete all required fields. Click  to display field descriptions.</li> <li>5. Click <b>Save</b>.</li> </ol>
View or add log entries	<p>From the Main Menu:</p> <ol style="list-style-type: none"> <li>1. Select the option for the object you want to manage log entries for. A query portal is displayed.</li> <li>2. Enter search criteria to locate the object. The maintenance portal is displayed.</li> <li>3. Click the <b>Log</b> tab.</li> <li>4. To add a log entry, click the Add link in the Log zone title bar.</li> <li>5. Type the log detail and click <b>Save</b>.</li> </ol>

## Viewing and Adding Log Entries

Use the Log tab to view or add log entries for the current object.

The log displays a list of user and system actions associated with an object, such as when it was created, last updated, or transitioned to different status. For each log entry, the system displays the date and time the action occurred, the user/system that initiated the action, the type of action, and related object, if any.

To create a new log entry, click the **Add Log Entry** link in the zone title, then enter log entry details and click **Save**. Your user ID is saved with the log entry.

# Chapter 4

---

## FAQs

This section provides answers to commonly asked questions.

### How Do I...?

---

This topic answers questions about how to perform day-to-day functions.

**Q. How do I find initial measurement data?**

A. Use the Initial Measurement portal to view initial measurement data. Please refer to the instructions under [Searching and Viewing Initial Measurement Data](#) for more detail.

**Q. How do I review device events?**

A. Use the Initial Measurement portal to view initial measurement data. Please refer to the instructions under [Searching and Viewing Device Events](#) for more detail.

**Q. How do I initiate check the status of a device?**

A. To check the status of the device, you simply navigate to the Device portal and review the contents of the Status field. It can be helpful to review this information before disconnecting or decommissioning a device.

### What's the Difference Between...?

---

This topic describes the difference between terms and concepts that are closely related.

**Q. What's the difference between Oracle Utilities meter data framework and Oracle Utilities Smart Grid Gateway?**

A. Oracle Utilities meter data framework provides shared functionality, including device management, device installation management, and Validation, Editing, and Estimation used by Oracle Utilities Meter Data Management, Oracle Utilities Smart Grid Gateway, and other Oracle Utilities products.

**Q. What's the difference between a meter reading and an event?**

A. Meter readings are measurements taken from a device to show how much of the quantity measured was consumed. Events refer to occurrences that take place relative to a meter such as power outages, tampering alerts, command completions and other events.