

Oracle® Utilities Integration for Device Operations

Release Notes

Oracle Utilities Meter Data Management v2.0.1.8
Oracle Utilities Operational Device Management
v2.0.1

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Value Proposition

Oracle Utilities Operational Device Management is a next generation enterprise application designed for utilities, who must manage increasing inventories of digital assets and related electronic operations, security, and compliance, in order to undertake their Smart Grid initiatives.

Oracle Utilities Meter Data Management and Oracle Utilities Smart Grid Gateway support the communications with smart devices as well as the loading, validating, editing, and estimating of meter usage and processing of event data - from meter installation and configuration, through to removal and retirement of the device.

The Oracle Utilities Integration for Device Operations provides enterprise integration to connect these modern applications with efficient data synchronization to optimize how utilities deploy, maintain, govern, operate, collect and process data from their automated infrastructure throughout the full asset lifecycles.

The integration benefits our utility customers by:

- Allowing them to efficiently manage their smart grid infrastructure from the meter components and communication networks, with different versions of firmware software, to ensure compatibility and reliability of grid operations
- Track device locations and operations at all times from receiving into inventory, testing, loading onto trucks, and installing, removing, or exchanging at service point locations for strict security and control
- Eliminating the need to build and maintain integration in-house, lowering the Total Cost of Ownership of Smart Grid

Leveraging Oracle Application Integration Architecture, the solution provides what utilities need to implement sustainable, Services Oriented Architecture-based integrations. By utilizing best practices and best-in-class Oracle Fusion Middleware, Oracle delivers an adaptable end-to-end solution that improves enterprise control, reliability and visibility of device operations.

This document describes new or enhanced functionality in the 11.1 Media Pack release of the Oracle Utilities Integration for Device Operations. Refer to the Oracle Utilities Integration for Device Operation Implementation Guide for a comprehensive description of product functionality.

Oracle Utilities Integration for Device Operations is focused on the following key areas:

- [Asset – Device synchronization](#)
- [Service Point – Location synchronization](#)
- [Contact synchronization](#)
- [Install Event – Asset Location synchronization](#)

Support Oracle Utilities Operational Device Management

Oracle Utilities Operational Device Management provides functionality to handle large volumes of assets and to manage the receipt, installation, maintenance, tracking, and removal of those assets.

Oracle Utilities Operational Device Management v2.0.1:

- Captures device attributes and supports any type of device
- Supports integration with other utility applications requiring device information and configuration
- Supports detailed smart device attributes
- Supports detailed location management and tracking of individual devices throughout their lifecycle
- Captures device configurations, settings and calibrations
- Tracks firmware on smart devices
- Validates devices at the time of receipt
- Schedules and captures data related to periodic inspection history over time
- Defines cycle information to schedule inspections
- Defines procedures to follow when performing inspections
- Uses activities and work orders to track and manage the electronic or in-field maintenance of devices
- Creates work activity/work order documents to be used in the field for inspection work
- Defines a work activity/work order lifecycle

Support Oracle Utilities Meter Data Management

Oracle Utilities Meter Data Management is used to maintain information about meters and the service points at which they are installed. The application provides means of recording measurements and events associated with meters in the field as well as the ability to compute usage for the recorded measurements.

Oracle Utilities Meter Data Management v2.0.1.8:

- Gathers consumption data from analog and smart meters
- Validates, edits, and estimates meter data automatically or manually
- Calculates billing determinants
- Aggregates consumption data for use by other applications
- Stores both raw data and the results of all operations
- Provides multiple analytic tools and can interface with other Business Intelligence applications
- Features a centralized Device Portal to show metering device information in a form relevant to the functions of different departments—customer service, meter shop, and operations

Oracle Utilities Smart Grid Gateway is a communications platform that supports interaction between enterprise applications such as a Meter Data Management system and diverse device management software applications such as Operational Device Management. The product provides a unified format for measurement and device event data, leveraging vendor-specific head-end adapters to retrieve, parse, and transform incoming data as necessary. Its meter command processes support complex message orchestration, leveraging the vendor-specific adapters while exposing a common set of commands that can be easily called by external applications using a simplified request format. The calling applications do not need to be aware of the associated meter vendor and specifics. This common enterprise gateway tracks all command requests sent to devices, as well as usage and events received from the devices that need to be processed and published to other enterprise applications.

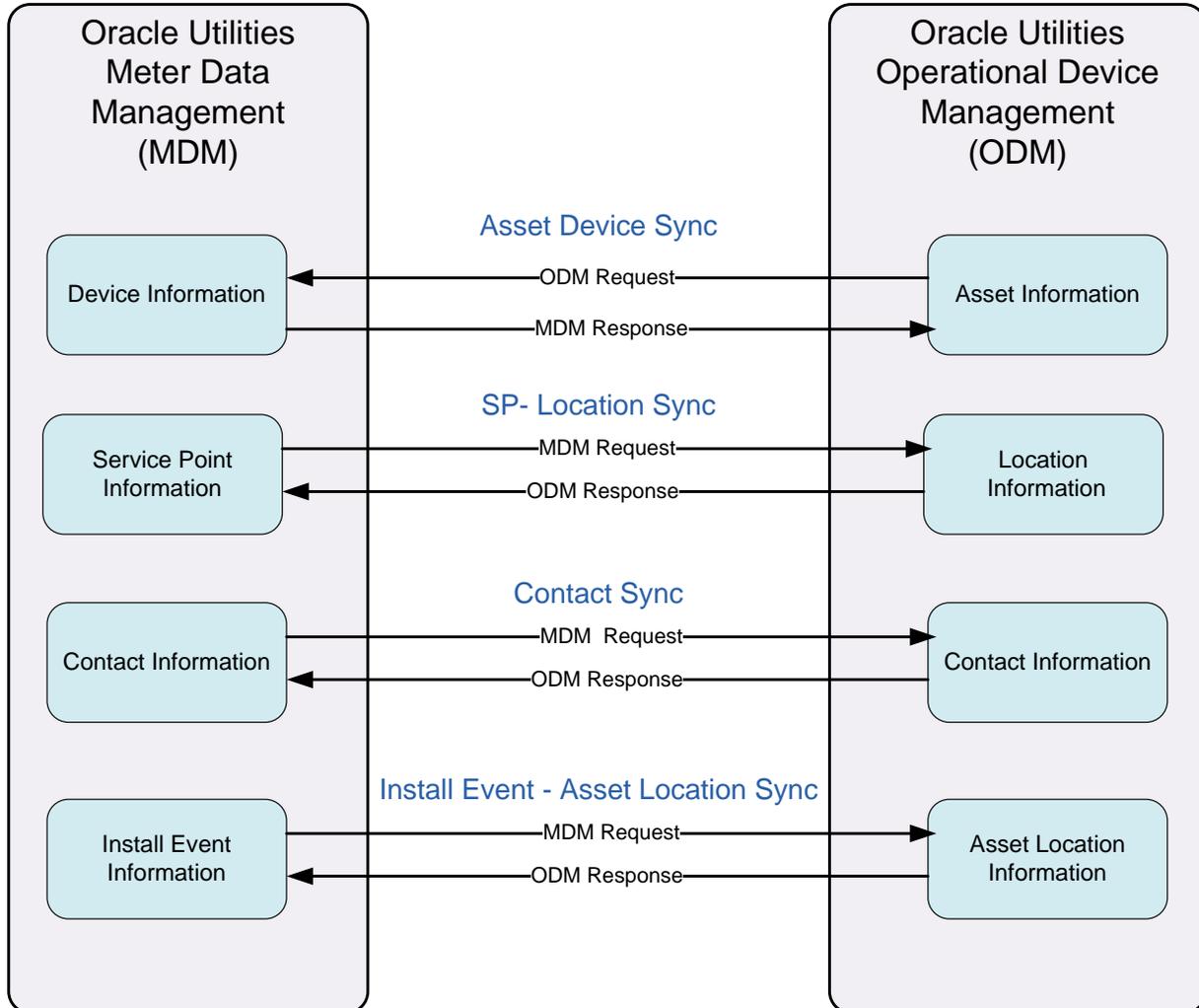
Summary

The combination of Oracle Utilities applications offers many advantages to our customers, including:

- A consistent “look and feel” experience for business users. The applications now conform to Oracle's Fusion Application user interface design principles.
- Interoperability for our business users through navigation options that allow users to launch each of the applications with appropriate data in context.
- A shared development framework built with open standards and common Java based technology increases the available pool of IT resources that can effectively manage the applications.
- Applications that are built by the same company, to industry standards, designed to work together and to facilitate this productized integration.
- Finally, the applications' flexible data models also provide standard methods for both extending the integration and handling exceptions.

Integration Flows

The following graphic shows the data synchronization flows that are included in this integration product:



MDM ODM - Integration Points

For the scope of this integration, Oracle Utilities Operational Device Management is considered the master system of record for meter device assets. The Oracle Utilities Meter Data Management system must be aware of the devices to issue automated meter commands and gather usage data once they are installed and operational. The Meter Data Management application is also updated with service point installation locations and customer contacts associated with the meter service point locations; however, subsets of this data are also required to support Device Operations business processes.

Asset – Device Synchronization

Oracle Utilities Operational Device Management is the system used to register and accept newly obtained meter devices. Once the device has progressed in its lifecycle to a point where it has been 'accepted', then the devices are synchronized to the Oracle Utilities Meter Data Management platform.

Oracle Utilities Operational Device Management will indicate the basic information about the device. Oracle Utilities Meter Data Management will also record these devices, making them known and available for installation purposes. If a meter is removed from a service point, then it then belongs to Oracle Utilities Operational Device Management (for tracking its location and any retirement, testing, or repair) and in many cases the device will be retired. A retirement will update the status in Oracle Utilities Meter Data Management.

Note that not all devices will be synchronized. Oracle Utilities Operational Device Management has the capability to store many kinds of assets, but only some types will be of interest to Oracle Utilities Meter Data Management.

Service Point – Location Synchronization

The Service Point (SP) synchronization sends minimal location details required by Oracle Utilities Operational Device Management. The service point data in Oracle Utilities Meter Data Management may be populated by a CIS (Customer Information System) or GIS (Geographic Information System) or other master data source of potential service locations for devices.

Contact Synchronization

The Contact synchronization sends minimal customer contact details required by Oracle Utilities Operational Device Management. The contact data in Oracle Utilities Meter Data Management may be populated by a CIS (Customer Information System) or CRM (Customer Relationship Management System). Operational Device Management only requires operational contact information, and not the full customer details.

Install Event – Asset Location Synchronization

The Install Event synchronization sends the minimum location history details required by Oracle Utilities Operational Device Management for tracking of the devices throughout their entire lifecycle. The data model in the Oracle Utilities Meter Data Management platform records the installation and removal of specific meter configurations (the setup of the measuring components - registers or channels - on a device) at a service point.

Note that if the configuration of measuring components of a device is to be changed, this results in a logical meter exchange in the Meter Data Management platform, but there is no physical movement of the device.

Oracle Utilities Operational Device Management needs to be kept informed of all physical device movements, and thus Oracle Utilities Meter Data Management will provide updates whenever the physical device is first installed at a service point or physically removed from a service point.

Certification on the Latest Application Releases

In order to enable your business to leverage the most current application versions and benefit from the latest innovations, Oracle has certified the Oracle Utilities Integration for Device Operations with a minimum of the following application releases:

- Oracle Utilities Operational Device Management v2.0.1
- Oracle Utilities Meter Data Management v2.0.1.8

Refer to the Oracle Utilities Integration for Device Operations Installation Guide for specific edge application patch levels and other details.

Additional Resources

There are additional resources that can help your organization learn more about this release.

Resource	Navigation
Oracle Utilities Integration for Device Operations-Installation Guide	Visit Oracle Software Delivery Cloud: https://edelivery.oracle.com/
Oracle Utilities Integration for Device Operations-Implementation Guide	Visit Oracle Software Delivery Cloud: https://edelivery.oracle.com/

- Visit the [My Oracle Support website](#) frequently to keep apprised of ongoing changes.
- For other sources of documentation, visit [Oracle Technology Network: Oracle Documentation](#).
- For training opportunities, visit [Oracle University](#).