

**Oracle Utilities Digital Asset Cloud
Service Integration to Oracle Utilities Grid
Edge Distributed Energy Resources
Management System**

Release Notes

Release 23B

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Oracle Utilities Digital Asset Cloud Service Integration to Oracle Utilities Grid Edge Distributed Energy Resources Management System Release Notes, Release 23B

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Preface

Welcome to the Oracle Utilities Digital Asset Cloud Service Integration to Oracle Utilities Grid Edge Distributed Energy Resources Management System Release Notes for release 23B.

The preface includes the following:

- [Audience](#)
- [Documentation and Resources](#)
- [Documentation Accessibility](#)
- [Conventions](#)
- [Acronyms](#)

Audience

This document is intended for anyone implementing the Oracle Utilities Grid Edge Distributed Energy Resources Management System integration to Oracle Utilities Digital Asset Cloud Service.

Documentation and Resources

For more information regarding this integration, foundation technology and the edge applications, refer to the following documents:

Product Documentation

Topic	Location
Oracle Utilities Digital Asset Cloud Service Integration to Oracle Utilities Grid Edge Distributed Energy Resources Management System documentation	https://docs.oracle.com/en/industries/energy-water/integrations-index.html
Oracle Utilities Network Management System documentation	https://docs.oracle.com/en/industries/energy-water/network-management-system/
Oracle Utilities Digital Asset Cloud Service documentation	https://docs.oracle.com/en/industries/energy-water/digital-asset-cloud-service/

Additional Documentation

Resource	Location
Oracle Integration Cloud Service documentation	Refer to the OIC documentation at: https://docs.oracle.com/en/cloud/paas/integration-cloud/index.html
Oracle Support	<p>Visit My Oracle Support at https://support.oracle.com regularly to stay informed about updates and patches.</p> <p>Refer to the <i>Certification Matrix for Oracle Utilities Products (Doc ID 1454143.1)</i> on My Oracle Support to determine if support for newer versions of the listed products is included.</p> <p>For more information, refer to the Oracle Utilities Integrations page at http://my.oracle.com/site/tugbu/productsindustry/productinfo/utilities/integration/index.htm</p>
Oracle Technology Network (OTN) Latest versions of documents	http://www.oracle.com/technetwork/index.html
Oracle University for training opportunities	http://education.oracle.com/

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers have access to electronic support for the hearing impaired. Visit: <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs>

Conventions

The following text conventions are used in this document:

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

Acronyms

The following terms are used in this document:

Term	Expanded Form
DERMS	Oracle Utilities Grid Edge Distributed Energy Resources Management System
DACS	Oracle Utilities Digital Asset Cloud Service
OIC	Oracle Integration Cloud

Chapter 1

Release Notes

This release notes outline the information about the functionality in integrating Oracle Utilities Digital Asset Cloud Service with Oracle Utilities Grid Edge Distributed Energy Resources Management System. Each section includes a brief description of the feature, the steps to enable or start using the feature, and any tips or considerations.

The release notes focuses on the following:

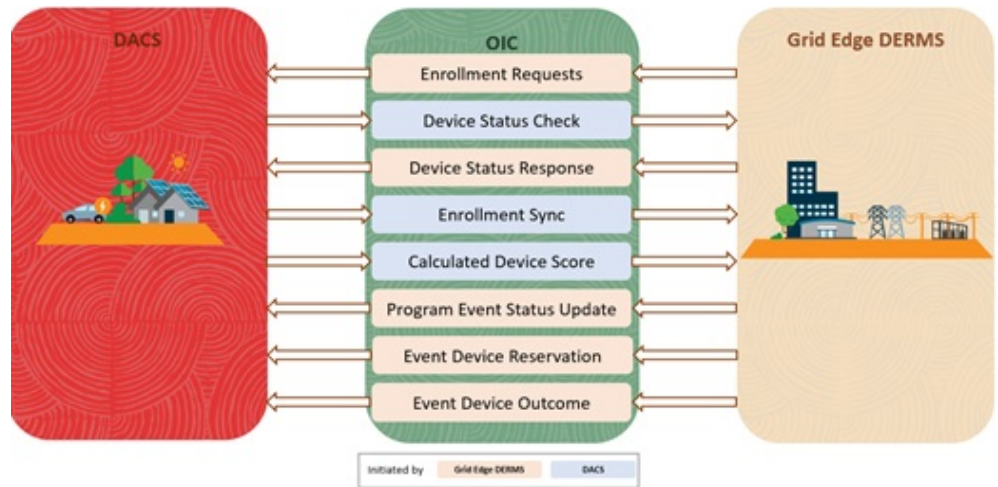
- [Overview](#)
- [Supported Applications](#)
- [About Oracle Utilities Digital Asset Cloud Service](#)
- [About Oracle Utilities Grid Edge Distributed Energy Resources Management System](#)
- [About Oracle Integration Cloud](#)
- [New Features Summary](#)
- [Known Issues](#)

Overview

Oracle Utilities Digital Asset Cloud Service integration to the Oracle Utilities Grid Edge Distributed Energy Resources Management System component facilitates the exchange of information related to controllable devices at a customer's premise. This integration can be leveraged to support customer enrollment, unenrollment, controllable device replacement, program event status updates and program event participation.

For more information about the functionality, refer to the *Oracle Utilities Digital Asset Cloud Service Integration to Oracle Utilities Grid Edge Distributed Energy Resources Management System Configuration Guide* included in this release. The documentation is available on Oracle Help Center at: <https://docs.oracle.com/en/industries/energy-water/integrations-index.html>

The following diagram illustrates the business processes supported in this integration.



To summarize, the integration can be leveraged to:

- Send enrollment requests for customer owned devices from Oracle Utilities Grid Edge Distributed Energy Resources Management System to Oracle Utilities Digital Asset Cloud Service. This initiates the controllable device's enrollment process in Oracle Utilities Digital Asset Cloud Service.
- Send controllable device status check request initiated from Oracle Utilities Digital Asset Cloud Service and receive the most recent controllable device status response from Oracle Utilities Grid Edge Distributed Energy Resources Management System.
- Synchronize customer, controllable device(s), and program subscription information on successful enrollments, unenrollment, and device replacements from Oracle Utilities Digital Asset Cloud Service to Oracle Utilities Grid Edge Distributed Energy Resources Management System.
- Periodically transfer the device score values calculated from Oracle Utilities Digital Asset Cloud Service to Oracle Utilities Grid Edge Distributed Energy Resources Management System for event planning.
- Send scheduled event and stage information from Oracle Utilities Grid Edge Distributed Energy Resources Management System to Oracle Utilities Digital Asset Cloud Service. Oracle Utilities Grid Edge Distributed Energy Resources Management System also sends the succeeding event-stage status updates to Oracle Utilities Digital Asset Cloud Service.

- Send device reservation information, which are the selected controllable devices participating in an upcoming scheduled event, from Oracle Utilities Grid Edge Distributed Energy Resources Management System to Oracle Utilities Digital Asset Cloud Service.
- Send device outcome for all participating devices in an event from Oracle Utilities Grid Edge Distributed Energy Resources Management System to Oracle Utilities Digital Asset Cloud Service.

In this integration, Oracle Integration Cloud is used as a middleware to connect the applications. It uses REST APIs to facilitate communication between these two applications.

Supported Applications

The following table shows the supported application versions in this integration:

Application	Version
Oracle Utilities Digital Asset Cloud Service	23B or higher
Oracle Utilities Grid Edge Distributed Energy Resources Management System	V23.6.0.1.0 or higher
Oracle Integration Cloud	V23.3.2.0.0 or higher

Refer to the *Certification Matrix for Oracle Utilities Products (Doc ID 1454143.1)* on My Oracle Support to determine if support for newer versions of the listed products is included.

About Oracle Utilities Digital Asset Cloud Service

Oracle Utilities Digital Asset Cloud Service provides the core functionality for utilities to create, run, and maintain demand response and distributed energy resource programs. It comprises the following functional areas:

- **Asset and Device Management:** Maintenance of controllable assets, such as “smart” thermostats, electric vehicle chargers, storage batteries, and other types of devices.
- **Program Enrollment/Unenrollment:** Identifying specific customers that are eligible for programs, and establishing relationships between the customers, the programs, and if appropriate, device locations where one or more controllable devices are (or have been) installed.
- **Program Management:** Creation and maintenance of Demand Response Programs to which customers can subscribe and which allows utilities to temporarily alter the settings of specific devices in their homes as a response to periods of high demand.
- **Program Subscriptions:** Maintenance of a customer's program subscriptions that represent the customer's enrollment in a program and device registration. Program subscriptions link the customer to a program and device location where controllable devices are installed.

- **Demand Response Event Management:** Identification and reservation of a customer's controllable devices in response to usage demand.

About Oracle Utilities Grid Edge Distributed Energy Resources Management System

Oracle Utilities Grid Edge Distributed Energy Resources Management System is built on Oracle Utilities Network Management System (NMS). It adds incremental support to the Oracle Utilities Network Management System platform for the management of behind the meter demand response resources. Oracle Utilities Grid Edge Distributed Energy Resources Management System can initiate control signals to devices inside customer homes, such as smart thermostats. Oracle Utilities Network Management System facilitates the modeling of individual Demand Response devices down to the customer service point and/or aggregated to load transformers to support Oracle Utilities Network Management System driven optimization. In conjunction with Oracle Utilities Network Management System the Oracle Utilities Grid Edge Distributed Energy Resources Management System component can help optimize electrical networks both operationally and commercially.

Oracle Utilities Grid Edge Distributed Energy Resources Management System offers strategy templates to be used for forecasting for various scenarios during event management. It provides event functions that help grid operators manage and review the forecasted impact of an event. This includes the ability to nominate, approve or reject an event; monitor or cancel an ongoing event and audit historical events. Oracle Utilities Grid Edge Distributed Energy Resources Management System supports automatic generation of event stages (blocks of field device activity) for configured objectives. Stages are built based on cost scores and reduction forecasts received from external applications used to help monitor and manage the Demand Response programs.

About Oracle Integration Cloud

Oracle Integration Cloud is a unified platform to integrate the applications, automate processes and create applications.

Using integrations, connect the applications into a continuous business flow. The integrations can be quickly developed and activated between both the cloud and on-premises applications. The lookups help to match application-specific codes between the two applications. Oracle Integration Cloud provides graphical mapper where the user can map just by dragging and dropping between the applications.

New Features Summary

The following new features were included in this integration:

- [Program Event Status](#)

Program Event Status

Oracle Utilities Grid Edge Distributed Energy Resources Management System allows events to be created over multiple event stages separated by time durations. While the overall event might span across different programs, each event stage will be associated to a program within Oracle Utilities Digital Asset Cloud Service. The Program Event lifecycle within Oracle Utilities Digital Asset Cloud Service has been updated to mirror the Event Stage states in Oracle Utilities Grid Edge Distributed Energy Resources Management System.

This integration flow sends event status messages from Oracle Utilities Grid Edge Distributed Energy Resources Management System to Oracle Utilities Digital Asset Cloud Service so that the program event is created and subsequently the event status is updated.

This integration flow includes:

- Receiving a message for each event stage from Oracle Utilities Grid Edge Distributed Energy Resources Management System when the event has transitioned to a predefined state (example: Scheduled).
- Transforming the message for the event stage and invoking the Oracle Utilities Digital Asset Cloud Service process for creating the program event.
- Receiving a message for each event stage from Oracle Utilities Grid Edge Distributed Energy Resources Management System when the event has transitioned to a subsequent state (Cancelled, In Progress, or Completed).
- Transforming the message for the event stage status update and invoking the Oracle Utilities Digital Asset Cloud Service process for actioning it on the existing program event.

Known Issues

Following are the known issues that impact the integration flows and associated processes with respect to the supported application versions:

- Oracle Utilities Grid Edge Distributed Energy Resources Management System allows the operator to create emergency events that conflict with existing events with a warning where devices overlap across events. Oracle Utilities Digital Asset Cloud Service will create separate records for such overlapping program events and event participation records with the expectation of receiving an outcome. This could impact the score calculation when existing device reservations do not receive an outcome. The mitigation will be to allow the operator in Oracle Utilities Grid Edge Distributed Energy Resources Management System to cancel the upcoming event or its equivalent stages where the devices overlap so that the program event and associated participation records are updated appropriately.