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Oracle Utilities Edge DERMS

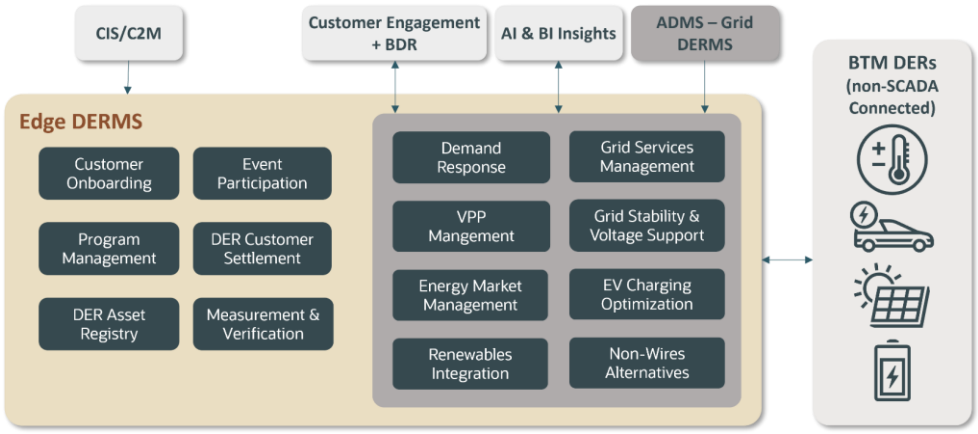
A comprehensive solution for load flexibility

Over the next decade, utilities anticipate an unprecedented rise in load growth driven primarily by widespread consumer adoption of connected devices such as electric vehicles. During the same period, greater energy price volatility and growing demand for ancillary services associated with the accelerated growth of renewable resources being added to the grid are expected to increase the marginal capacity cost of electricity. These dynamics highlight the urgent need for enhanced grid flexibility, particularly through customer-owned resources.

Oracle Utilities Edge DERMS (Edge DERMS) plays a pivotal role in addressing these challenges. By enabling utilities to seamlessly integrate and manage behind-the-meter (BTM) assets, including thermostats, solar PV, and electric vehicles, Edge DERMS provides critical operational flexibility. The solution empowers utilities to forecast demand, optimize resource use, schedule DER events, and effectively dispatch distributed assets in real time.

Manage customer programs *and* grid services

Edge DERMS offers a comprehensive suite of applications that enable customer-owned resources to deliver a combination of grid services—while preserving customer comfort and preferences.



The platform features an advanced dispatch strategy module designed to intelligently manage behind-the-meter (BTM) devices such as electric vehicles, thermostats, and solar-plus-storage systems. These strategies support load shedding and load shaping through economic, emergency, and reliability-driven events. By unifying customers, assets, and programs under a single operational framework, Edge DERMS empowers utilities to unlock grid flexibility at scale. Increasing operational flexibility allows utilities

Key capabilities:

- Seamlessly integrate with behind-the-meter (BTM) assets
- Manage aggregated DERs and virtual power plants (VPPs)
- Co-Optimize DERs across multiple objectives
- Preview and model strategies prior to scheduling an event
- Model scheduled events versus current forecast to ensure desired outcomes
- Enhance grid flexibility— manage and optimize every resource on the grid edge

to optimize grid performance, defer costly infrastructure investments, and integrate higher levels of renewable energy. This results in a more efficient, reliable, and resilient distribution system. By taking a proactive approach, utilities can maintain grid stability while accelerating the transition to a more sustainable and decarbonized energy future.

Bring it all together

Edge DERMS enhances grid flexibility and reduces the overall cost of energy by seamlessly integrating with behind-the-meter (BTM) assets. It provides operators with real-time visibility and control of resources at the grid edge as well as enables precise and coordinated management. Through advanced optimization capabilities, operators can aggregate and dispatch distributed energy resources (DERs) and virtual power plants (VPPs) to meet a range of objectives including selecting the most economically efficient option to match energy demand, support reliability, and responding to market signals.

Forecast, preview, and optimize

Edge DERMS equips operators and demand response managers with a comprehensive toolkit to monitor device status, manage DER strategies, and execute targeted events with precision. The platform enables seamless integration and optimization of behind-the-meter (BTM) assets, accurate forecasting of dispatchable load, and the creation and scheduling of load shaping strategies. These strategies can be executed as events with real-time adjustment capabilities to respond to changing grid conditions. Edge DERMS provides a unified view across all programs and intelligently triggers events, either manually or automatically, to ensure the most economically advantageous dispatch.

Forecasts offer a **preview** of the expected load reduction achievable through scheduled events compared against actual system load. These forecasts enable operators to make timely, data driven decisions by continuously updating in real time and reflecting the current status of the grid and the availability of distributed assets.

Edge DERMS **optimizes** the fleet of customer-owned distributed resources by balancing factors such as cost, availability, customer comfort, and operational constraints.

Key Use Cases:

- Capacity management
- Manage aggregator and virtual power plant (VPP) resources across multi-objective optimization
- Optimize dispatch of various DERs, such as EVs, thermostats, and batteries, within the parameters of multiple programs and objectives

Related Solutions:

- Oracle Utilities Customer Program Management Cloud Service (CPMCS)
- Oracle Utilities Live Energy Connect
- Oracle Utilities Network Management System
- Oracle Utilities Grid DERMS
- Oracle Utilities Data Intelligence

Why Choose Oracle Utilities Edge DERMS?

- **Comprehensive Visibility of DERs**: Gain a single-pane-of-glass view into DER operations and market participation.
- **Enhanced Grid Reliability:** Optimize grid stability through intelligent aggregation and dispatch of DERs.
- **Seamless market Integration**: Unlock new revenue streams by enabling DERs to actively participate in energy markets.
- **Future-Ready Technology:** Designed to support the evolving needs of modern grids with DERs and VPPs.
- **Proven Expertise**: Powered by Oracle's secure, scalable, and interoperable technology stack—enhanced with AI for predictive insights and operational intelligence.

Transform your grid today with Oracle Utilities Edge DERMS – the future of digital grid management starts here.

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