

Modernize Distribution Grid Performance All the Way

With Oracle Utilities Grid Management Solution

Outages have an economic impact on businesses across the globe, and the cost of outage-related downtime is increasing. For example, the average U.S. business can lose anywhere from \$200,000 to \$1 million within fifteen minutes of an outage.¹ A Ponemon Institute study indicates that cost of downtime due to outages has increased almost 38% since 2010.²

In parallel, the complexity of grid operations is growing due to new technology innovations, consumer trends and regulatory mandates. For instance, a number of states in the US have aggressive targets to achieve up to 50% or more of renewable capacity in the next 10 years.

Modernize Distribution Network All the Way to Edge

Oracle Utilities Network Management System (NMS) unifies grid operations capabilities to shorten outage durations, optimize distribution grid operation, manage distributed energy resources (DER). Chosen by Gartner Research as a leader in over 3 consecutive years, NMS is an industry proven, trusted, and leading solution to solve critical challenges of energy and water distribution networks.

Advanced Distribution Management

Utilities grid operations rely on Oracle Utilities NMS to effectively respond to unplanned outages, integrate emergency and mutual-aid crews, and get accurate information to customers faster. Utilities need to be measured through reliability metrics by regulators that identify how long it took to restore power and impact to their customers. Grid operators can utilize advanced analytics and business intelligence to stay on top of reporting reliability.

In addition, they:

- Improve network health by continuously analyzing data across multiple systems and reporting risk
- Reduce the cost of demand by automating voltage regulation and electricity conservation

BENEFITS

- Perform at over 90% reliability in any condition to restore service to customers safely and timely
- Reduce switching errors by over 50% improving network performance significantly
- Model your network once, then optimize and take action
- Communicate proactively to customers increasing satisfaction and approval ratings
- Increase customer satisfaction significantly while also exceeding reliability metrics such as CAIDI



Reduce Unplanned Work



Identify Faults Accurately and Timely



Complete Network Visibility



Avoid Customer Hazards Due to Voltage Fluctuations



Reduce Impact of Customer Outages

¹ U.S. Department of Energy. Transforming the nation's Electricity system: the Second installment of The quadrennial energy Review January 2017. Page 12. <https://energy.gov/sites/prod/files/2017/02/f34/Chapter%20I--Transforming%20the%20Nation%27s%20Electricity%20System.pdf>

² Ponemon Institute LLC. Cost of Data Center Outages January 2016. Page 2. <http://files.server-rack-online.com/2016-Cost-of-Data-Center-Outages.pdf>

- Reduce the cost of demand by automating voltage regulation and electricity conservation
- Accelerate control room productivity through training, simulation, and best practices
- Provide safe and fast maintenance, network reconfiguration, automated self-healing, and outage restoration through coordinated and accurate switching, both in planning and real-time

DER Management

With Oracle Utilities NMS, grid operators model the entire DER network for improved operations and planning. They can register the DER assets and make accurate network plans with numerous inputs from systems such as weather and Advanced Metering infrastructure. Oracle Utilities provides a complete lifecycle for DER asset management and customer communication on top of grid operations.

Customer Communication

With Oracle Utilities Opower Digital Self Service, consumers can get a real-time view of outage status with estimated restoration times and updates from their utilities. This improves customer satisfaction and reduces call center demands. Utilities can extend different demand response programs in times of grid resource constraints via Oracle Utilities Opower Peak Management.

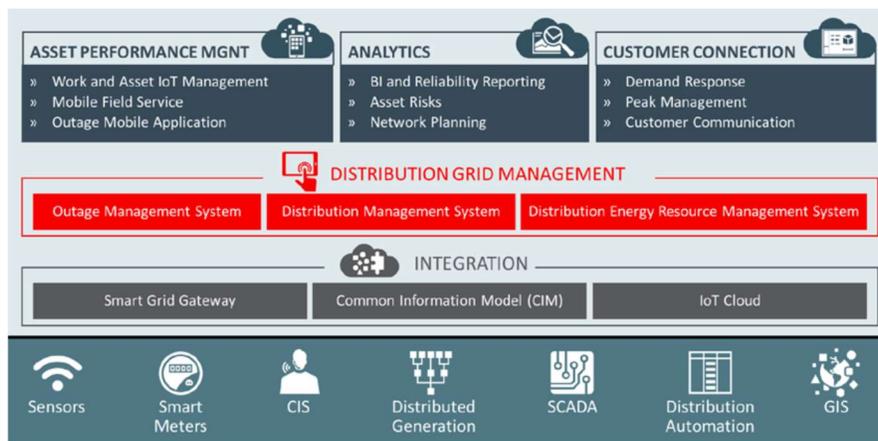


Figure 2: End-to-End Grid Management Solution

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