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# Oracle Utilities Network Management Business Intelligence

Pre-built dashboards provide insights into your distribution grid to help you increase grid efficiency and cut restoration time.

During an outage, Oracle Utilities Network Management System equips Storm Center engineers and dispatchers with the tools they need to manage complex, evolving, and often lifethreatening situations.

For staff and executives outside the Storm Center who also play important outage-management roles involving resource allocation and communications with external audiences, Oracle Utilities Outage Analytics and Oracle Utilities Advanced Spatial Outage Analytics provide the decision support they need with graphics and maps that spotlight trends, compare statistics in an ongoing outage to historic norms, permit drilldowns into outage details, and monitor changes to reliability statistics. Executives can develop a clear picture of the dimensions of current and past outages, including their effects on customers and on utility operations. And communications staff can convey the dimensions of current outages to first responders, customers, and the media.

## Out of the box value

Oracle Utilities Network Management Business Intelligence uses pre-built dashboards to help managers and executives grasp and analyze vital distribution-grid metrics during normal operations and during unplanned outages.

### **Oracle Utilities Outage Analytics**

Outage Analytics pre-built dashboards include:

- **Overview**—focuses on current outages. It summarizes total number of current outage events, total number of customers interrupted, and average outage duration. This dashboard also provides information on critical customers affected, the progress of restoration, and the causes of current outages.
- Wire Down—focuses on the calls and customers associated with wire-down events.
- Customer—lists all customers currently experiencing outages. These are grouped by outage event.

#### **Key features**

- Displays outage and distribution grid details as charts, trend lines, maps, and other graphics, right out of the box
- Uses Oracle Business Intelligence (OBI), the industry-leading, comprehensive, enterprise platform that offers guided and ad hoc analytics, advanced reporting and publishing, and the ability to invoke business processes
- Provides near-real-time updates during outages
- Permits drilldowns into current and past performance details
- Provides decision support for executives and staff
- Incorporates standard reliability measurements
- Supports very large data volumes
- Features easy configuration, extension, and upgrade

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- **Crew** lists all crew assignments for current outages plus information about those crews. It helps managers analyze how well crew resources are being used.
- **Feeder Performance** compares feeder reliability across the network. This dashboard also identifies the worst-performing feeders.
- **Events** summarizes outage details, including number of customers affected.
- Reliability— helps utilities monitor and spot trends in performance against IEEE indices.
- **Damage Assessments** provides a summary of damage assessment statuses and needed crew types plus a map of damage locations
- **History** consolidates the reports of other Outage Analytics dashboards for a longer-term view, providing event summaries by year and permitting users to drill down into information using filters like date range, storm name, or control zone.

#### **Oracle Utilities Advanced Spatial Outage Analytics**

As with other mapping tools, users can tailor displays to their jobs and personal preferences. They can use common tools like panning, zooming, and filtering to focus on the specific information they need.

# **Addressing Distribution Operations**

Distribution grid analysis is crucial to anticipating overloads, preventing outages, and planning grid expansions. To support the decisions required at the management and executive levels, Oracle Utilities Distribution Analytics provides dashboards that address:

- Feeder Load, which monitors load peaks. With this dashboard, you can identify feeders with maximum peak loads and monitor them more closely to reduce the possibility of overload conditions. This dashboard also looks at the breaker capacity for each feeder to determine which feeders have the smallest remaining margin before overloads (and possible breaker lock-out) may occur.
- Feeder Performance. Like the Feeder Performance comparisons available in Outage Analytics, this dashboard compares feeder reliability and identifies the worst-performing feeders. Additionally, it identifies feeders that perform badly over time, helping you address the causes of poor performance.
- Outage Causes. By compiling and comparing the causes of outages over multiple periods and across all device types, this dashboard helps you allocate resources so as to maximize their use in reducing future outages.

## **Benefits**

Distribution grid analysis is crucial to anticipating overloads, preventing outages, and planning grid expansions. To support the decisions required at the management and executive levels, Oracle Utilities Distribution Analytics provides dashboards that address:

The Oracle approach to business intelligence also accommodates emerging needs. Dashboards are easy to add and modify. And analysts with ad hoc reporting needs can simply "drag and drop" to create tables and to change the views quickly to charts, gauges, pie charts, histograms, and similar displays.

Because the dashboards use intuitive and familiar graphics (maps, alerts) and tools (e.g., drilldowns, spreadsheets, hover texts), training time is minimal.

#### **Key benefits:**

- Speeds and improves the quality of executive-level outage and distribution decisions
- Improves outage communications with first responders, public officials, media, customers, and regulators during and after the crisis
- Slashes time and cost of business intelligence implementations and upgrades
- Minimizes training time

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Once in place, Oracle Utilities Network Management Business Intelligence dashboards improve decision-making speed and accuracy. The results:

Better executive decisions on resource deployment both before and after outages.

- Accurate and timely communication during outages with community leaders, service organizations, and customers.
- Faster assessment of current and past outage and distribution performance.
- Clearer communication with the regulators who are assessing utility reliability and asset requirements.
- Reduced training time for outage responders.

#### **Related solutions:**

Use of Oracle Utilities Network Management Business Intelligence dashboards requires:

- Oracle Utilities Network Management System v2.5 or higher
- Oracle Network Management System – Extractors and Schema
- Oracle Business
  Intelligence (Enterprise
  Edition, Enterprise Edition
  Plus, or Standard Edition)

Oracle Utilities NMS has field proven performance managing distribution grids for millions of electricity consumers globally. We continue to benchmark that scalability so you can rest assured you'll have the capacity to handle data and operations when it counts.

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