

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.

Out of the Box Value

Oracle Utilities Network Management Business Intelligence uses three outstanding pre-built dashboard products to address vital network management issues:

- Oracle Utilities Outage Analytics
- Oracle Utilities Advanced Spatial Outage Analytics
- Oracle Utilities Distribution Analytics

These products help managers and executives grasp and analyze vital distribution-grid metrics during normal operations and during unplanned outages.

Addressing Outages

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 life-threatening situations.

But staff and executives outside the Storm Center 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—graphics and maps that spotlight trends, compare statistics in an ongoing outage to historic norms, permit drill-downs 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.

Oracle Utilities Outage Analytics

Outage Analytics pre-built dashboards include:

- Overview. This dashboard 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.

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 drill-downs 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

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

- Wire Down, which focuses on the calls and customers associated with wire-down events.
- Customer, which lists all customers currently experiencing outages. These are grouped by outage event.
- Crew, which 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, which compares feeder reliability across the network. This dashboard also identifies the worst-performing feeders.
- Events, which summarizes outage details, including number of customers affected.
- Reliability, which helps utilities monitor and spot trends in performance against IEEE indices. 1
- Outage Playback, which moves quickly through an hourly summary of recent outage events. It helps utilities analyze the speed of outage restoration.
- History, which 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

Spatial Outage Analytics dashboards include:

- Overview, a high-level mapped outage summary. Color-coded shapes show outage location and severity. Color-coding also indicates the number of customers affected (by geographic area) and fosters rapid understanding when users use filters (such as device type, event state, and event number) and slicing (by number of customer interrupted, average duration and customer minutes interrupted). Non-spatial graphics show details about specific outage locations. This dashboard also provides out-of-the-box integration with Weatherbug's weather radar services² to show weather radar, lightning strikes, temperature, winds, and views from cameras at weather stations.
- Customer, a mapped summary of customers affected, by postal code. Accompanying non-spatial graphics help users filter the map by event number.
- Reliability, which shows IEEE-standard reliability indices for cities the utility serves.
- Outage Playback, which enables users to view restoration progress summarized by hour.
- History, which plays back restoration progress for outages aggregated by month or other time period.

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.

RELATED PRODUCTS

Use of Oracle Utilities Network Management Business Intelligence dashboards requires:

- Oracle Utilities Network Management System v1.9 or higher
- Oracle Network Management System – Extractors and Schema
- Oracle Business Intelligence (Enterprise Edition, Enterprise Edition Plus, or Standard Edition)

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

With most business intelligence tools, experts require two to four weeks to build and test each dashboard. Oracle Utilities Network Management Business Intelligence dashboards, in contrast, arrive pre-built. Just enter a few service keys and you're ready to go.

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 (stoplights, maps, alerts) and tools (e.g. drill-downs, spreadsheets, hover texts), training time is minimal.

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. Playbacks of past outages help them assess the impact of specific actions on outage duration.

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