

Simplifying Utility Communications

Providing unified network management across multiple utility networks

Utility Challenges

Lack of overall performance view

Utility network consists of multi-vendor devices, each with a different method of producing performance data.

High operational costs

Costly and time-consuming to train staff to manage nodes on multiple element managers.

Difficult to manage end-to-end QoS

Troubleshooting and managing cross-network KPIs is a challenge with multiple element managers monitoring legacy and new devices.

Complexity of regulatory and audit compliance requirements

Security and reporting requirements grow with multiple network software applications.

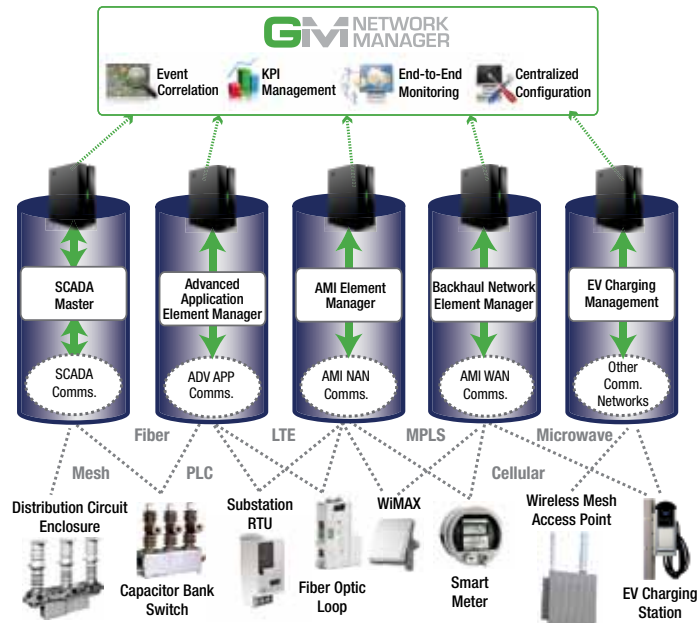
Today's utilities face challenges managing increasingly complex communications infrastructure

Already complex communication portfolios are being extended and challenged by new consumer power demands, distributed generation, renewable energy integration and new regulatory requirements. The modern utility must meet increasingly higher standards of reliability, security, cost of service, power quality, efficiency, environmental impact and safety.

To maintain reliability in these challenging times, utilities must leverage the full capabilities of their existing and new communications infrastructure. Today, most networks are managed in service silos, with each element manager tailor-designed for its own network with little consideration for future needs or integration. Utility AMI network operators may have no visibility across their multi-vendor AMI networks. Furthermore, without a common service architecture or unified network infrastructure that can communicate with data backhaul, AMI, DA, SCADA, or other legacy network systems, operators are left to guess at fault or performance issues that are affecting their systems.

'Manager of Managers' unifies disparate networks, shares information easily

GridMaven Network Manager is a comprehensive utility network management solution that efficiently manages a utility's heterogeneous communication networks. Powerful, scalable and simple to use, it provides centralized and granular visibility with robust performance monitoring, fault management, and configuration features. The solution automatically detects and monitors any DNP3, SNMP or TCP/IP compliant device and allows network operators to communicate and coordinate between disparate systems with different latency, reliability, performance and bandwidth requirements.



Modular and scalable

GridMaven Network Manager fills the functionality gap between traditional element managers that offer limited vendor-specific device control and complex IT enterprise network management applications. The solution is built from the ground up for seamless integration with legacy networks. The modular design provides extensibility for future network upgrades and deployments.

Manage complexity through intuitive interface

The solution's unique map view interface puts the utility network operator in control of every aspect of network infrastructure, allowing decisions to be made with a holistic view of network health rather than the fragmented, siloed approach that exists today. With a unified territory map view, the utility's communications infrastructure

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Key Benefits

Centralized, efficient operations

Single network manager shares critical data between multiple communication networks creating a more robust, integrated management environment.

Lower maintenance costs, reduced downtime

Integrated device monitoring increases productivity and reduces downtime by providing network operators visibility over entire network infrastructure.

Superior reliability and performance

Ability to create cross-network KPIs critical for ensuring end-to-end QoS and optimization of the network.

Flexibility and extensibility

Light integration approach delivered in cloud-based or enterprise platform. Easily manage and add new network devices, protocols and KPIs.

Effective network diagnostics

Sophisticated multi-network alarm correlation and analysis enables proactive fault management

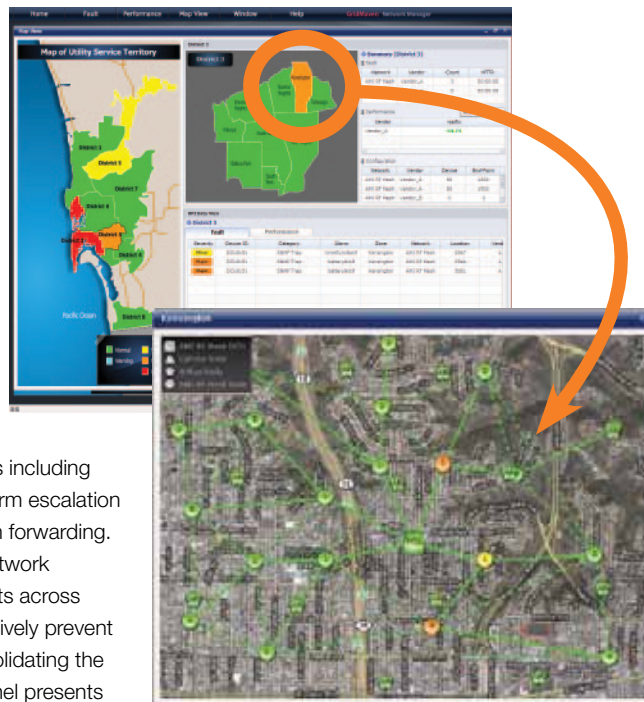
no longer looks like a patchwork of deployments but rather a powerful ecosystem of communications that can be leveraged to deliver supply and demand side management. In addition, the root cause of network degradations is easy to pinpoint and diagnose.

End-to-end troubleshooting to reduce downtime

GridMaven Network Manager detects, collects, presents, and logs alarms from network equipment. Advanced workflow and analysis functions help operators analyze problems and initiate repair actions including filtering, domain-based alarm contexts, alarm escalation and optionally automated alarm notification forwarding. Sophisticated alarm correlation enables network operators to more effectively diagnose faults across the utility's multiple networks and to proactively prevent network communications problems. Consolidating the network health view into a single alarm panel presents object status information clearly and concisely, and offers direct access to the configuration, diagnostic, and statistical tables needed for trouble correction. Messaging and email alarm notification as well as audible alarm alerts speed problem resolution.

Enforce policies, standardize operations and meet compliance requirements

The configuration management capabilities let operators automatically maintain, back-up, restore, and compare network device configurations, eliminating inefficiency and errors associated with manual configuration. With an easy-to-use graphical user interface operators can configure devices, save, and update configuration data with direct access. Notifications of changes give the operator immediate visibility into planned, unplanned, authorized, and unauthorized changes. The configuration manager also centralizes firmware/OS management. Firmware versions can be deployed to devices or groups of devices, scheduled or on demand.



Real-time performance monitoring & trend reports

Network performance can be collected and saved across multiple networks for accumulated performance and SLA compliance reports. GridMaven Network Manager provides real-time network performance monitoring and report generation based on pre-configured thresholds. Reports can be generated on an hourly, daily, weekly and monthly basis.

Deployment flexibility

Network Manager can be deployed as an enterprise or cloud based model. It is also available as an enterprise appliance server or a virtual appliance server for utilities that prefer the benefits of other deployment options.

GRIDMAVEN™

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About GridMaven

GridMaven Network Manager empowers operators with the tools to manage hybrid utility communication networks. A powerful software platform, it provides real-time performance and event monitoring in a centralized interface, allowing event correlation across disparate networks and extending the value of legacy networks. Finally, operators have an end-to-end view across all system devices. Learn more at www.gridmaven.com.