



Welcome to the Smart Grid solution from Eaton. Smart Grid Communications Solutions

Today's Smart Grid is all about communication. It's founded on technologies that enable data collection, interpretation and presentation in ways that help you and your customers make better decisions. The question is where to start. The answer is Eaton—the leading provider of Smart Grid solutions for Public Power.

We're at the point where technology, mobile interactivity, communicating devices and information collection meet. It's a new world of collaboration, non-proprietary systems, and ideas that address real-world problems with cost-effective solutions. Eaton packaged proven products and professional services to step you through the process.

One supplier, an open network, an end-to-end solution.

Smart Grid is about flexibility and scalability, because the way you work is changing—the services you offer and real-world budgetary decisions aren't made at the flip of a switch. A Smart Grid solution from Eaton expands with your requirements to help you meet immediate needs and plan for changing technology, regulatory and

customer requirements. To minimize cost and complexity, the Eaton solution resides on our Intelligent Network Platform that installs on your existing infrastructure. That ensures an attractive return on investment with a low-risk strategy for deploying and integrating the modular building blocks of an intelligent network.

Pre-sale leadership. Post sale support.

You can rely on experienced, professional support from Eaton to lead you through the process. Our team will help you assess equipment needs, integration plans, develop implementation plans and timelines. All to help you build a Smart Grid in the smartest way.

The right solution for what you need now—and later:

Yukon Smart Grid Software Platform: Unite AMI, Demand Response, and Distribution Automation, including VAR and integrated volt/ VAR management, smart sensors, automatic feeder reconfiguration, substation monitoring and SCADA, all on one, easy-to-use platform with a single user interface.

Advanced Metering Infrastructure (AMI): End-to-end architecture provides the largest feature set, choice of meter manufacturers, flexible deployment options and uniform network coverage across all service territories with full Demand Response and Distribution Automation support.

Demand Response (DR):

As the leader in utility Demand Response, our complete Demand Response solution set includes software, hardware and cloud services for utilities and their residential, commercial and large industrial end users.

Distribution Automation

(DA): Choose self-healing grids, capacitor control, volt/ VAR optimization and smart sensors for better management and control. Yukon manages IEDs with advanced, real time monitoring and control via expansive DNP support.

Substation Automation

(SA): State-of-the-art products provide secure grid monitoring and control for fast response to real-time events and system reliability. Count on support for over 90 IED protocols with an upgrade path to advanced protocols like IEC 61850.

Distribution System Analysis:

CYME™ planning software enables distribution system modeling, simulation and analysis with a comprehensive, tool set for improving reliability and efficiency while resolving abnormal network conditions.

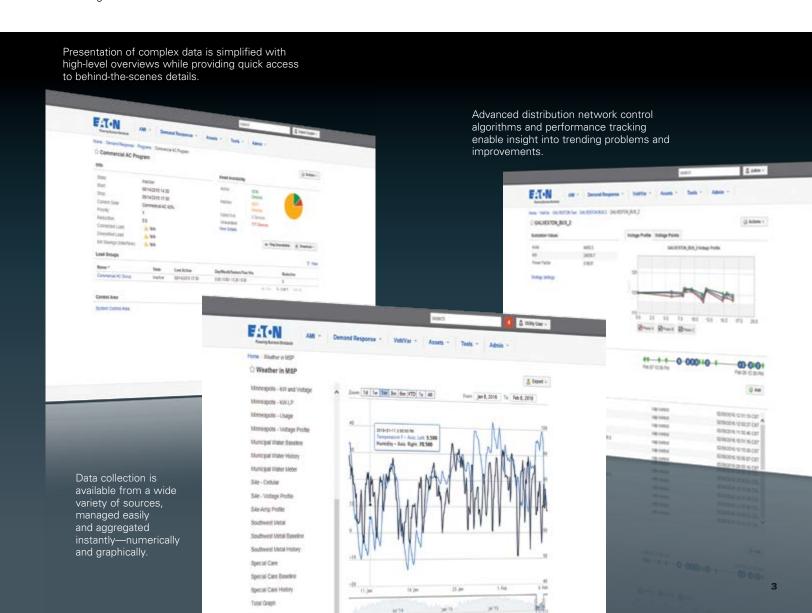
Consumer Portals: The Yukon Web portal enables utilities and their customers to better manage end-use demand and consumption. Achieve energy efficiency goals by lowering peak demand, provide verifiable kWh savings, and enhance revenue through target marketing and value-added services.

Prepaid Solutions: Our solutions have low upfront costs and participant fees, and no hardware costs. That means lower total cost of ownership, an attractive business case, and your customers get convenient payment options while improving cash flow and reducing arrears.

Network Communications Solutions: In addition to a world-class RF Mesh Smart Grid Network, broadband communication technologies include fiber switches, multiband cellular modems, and multiple Ethernet radio solutions. Purpose-built networks integrate seamlessly with Yukon software and receive expert, in-house support.

Microgrid Energy Solutions:

Microgrid Energy Solutions ensure electrical energy surety independent of utility grid availability and help provide demand/load management. Power sources including generators, solar, wind and energy storage can be integrated on a common grid structure with necessary loads seamlessly islanded from—or paralleled with—the main grid.



Eaton provides a cost-effective migration of existing assets to a vibrant Smart Grid infrastructure that can expand as needed.







To move with a changing business environment, start with flexibility.

Flexible communication network design:

- · Begin with building an expandable, future-proof, RF mesh network
- · Full two-way communications to all devices
- · Highest bandwidth WAN solutions and best LAN network throughput
- · Message prioritization and broadcast to handle advanced Smart Grid applications
- · Leverage Eaton's expertise in: fiber, cellular, Ethernet radio, Wi-Fi, WiMAX and more

Low cost of ownership

Intelligent devices and distribution apparatus:

- Complete offering of relays, controls, sensors, meters, load control devices, smart thermostats and in-home displays
- Best-in-class distribution apparatus: regulators, transformers, reclosers and switchgear
- Broadest apparatus offering: controls, smart sensors/fault locators and intelligent devices
- · Agnostic communication with most third-party meters keeps equipment costs in check

Built on decades of experience

Tools for consumers and utility management:

- · Yukon is the most mature Enterprise Software Platform in the industry with a 25+ year history and proven connection with over 75 systems
- Complete solution for advanced metering infrastructure (AMI), demand response (DR), (IVVC), Circuit Breaker Control, Smart Sensors, substation monitoring and other distribution automation (DA) applications
- · Easily install and manage data, decision making and integration to other enterprise systems
- Innovative software applications address complex energy automation operations in a multi-faceted facility and support back-office operations
- Modular platform enables selection of tools needed now, with expansion capability later
- Secure communications meet NIST and NERC-CIP standard

Configured to your unique needs

Let Eaton step you through everything:

- Value assessments validate benefits against industry standards to understand potential financial impact
- Network design and propagation studies ensure effective network coverage and business continuity
- Project management services provide a single point of contact
- · Leverage Eaton's expertise built on more than 300 AMI deployments
- Professional engineering and support services
- Financing and deployment options: leasing, software as a service (SaaS) and performance contracting

Easy, one-stop shopping

Eaton.com/smartgrid

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