

SMP SG-42xx platform Gateways

Substation automation



Taking substation automation to the next level



Over the last decade, the SMP™ Gateway automation platform has been recognized as one of the most efficient and reliable substation gateways on the market.

Eaton's SMP SG-42xx platform leverages more than 20 years of hardware and software development, and delivers one of the most advanced substation automation solutions on the market. Flexible, reliable, evolvable, the SMP SG-4250 and SMP SG-4260 models are smart grid enablers.

The SMP Gateway is used successfully in thousands of substations to perform data acquisition and distribution, protocol translation and to provide secure remote access to substation intelligent electronic devices (IEDs).



Powering Business Worldwide

Simplify SCADA operational activities

- Create a homogenous system with a single entry point for each substation
- Access IED data with more than 80 protocols supported
- Integrate the latest IEC 61850-ed2 IEDs with legacy RTUs, IEDs and PLCs (supports unlimited length point names)
- Manage alarms, visualize data, access substation diagrams and control substation devices directly from the SMP Gateway HMI interface (locally or remotely)
- Leverage flexible Ethernet connectivity with two (2) built-in SFP ports (optional, SMP SG-4260 only, 1GbE)
- Manage network segments—up to 10 Ethernet ports with multihoming and VLAN tag support
- Reduce overall network bandwidth usage
- Synchronize IEDs using IRIG-B and soon with PTP—IEEE™ Std 1588™-2008 standard
- Synchronize the SMP Gateway using the satellite-synchronization (GNSS) option for the GPS and GLONASS constellations, available on the SMP SG-4260 model
- Implement PRP/HSR protocols to benefit from higher system availability resulting from redundant networks

Add intelligent controls to your substation equipment

- Extend the capabilities of legacy devices with high-level functions such as binary debouncing and grouped controls
- Create sophisticated automation scripts, such as automatic load and feeder management, using the built-in IEC 61131-5 compliant Soft PLC runtime system

Access non-operational data securely

- Passthrough to any IED
- Extract data for planning, maintenance, engineering and fault analysis
- Use the SMP Gateway as a local repository for event/DFR files
- Visualize logs, stats and archives as well as system, communication and redundancy dashboards via the SMP Gateway HMI

Strengthen cybersecurity

- Create an NERC CIP-compliant electronic perimeter to protect substation devices
- Secure SCADA protocols using TLS and X.509 certificates as per IEC 62351-3
- Implement DNP3 secure authentication V5 as per IEC 62351-5
- Protect your system with a built-in firewall and integrity check

Provides data acquisition and distribution, protocol translation, and secure remote access to substation IEDs

The SMP SG-42xx platform is the most robust SMP Gateway platform available

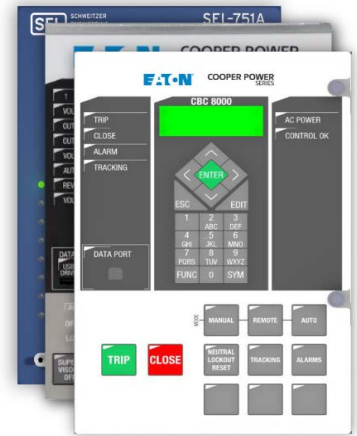
- Meet all IEEE® and IEC® requirements for substation-grade equipment
- Provide high data availability with built-in redundancy schemes
- Wurdtech's Achilles® Communications Level 1 certified
- Nessus® tested

A system designed with efficiency in mind

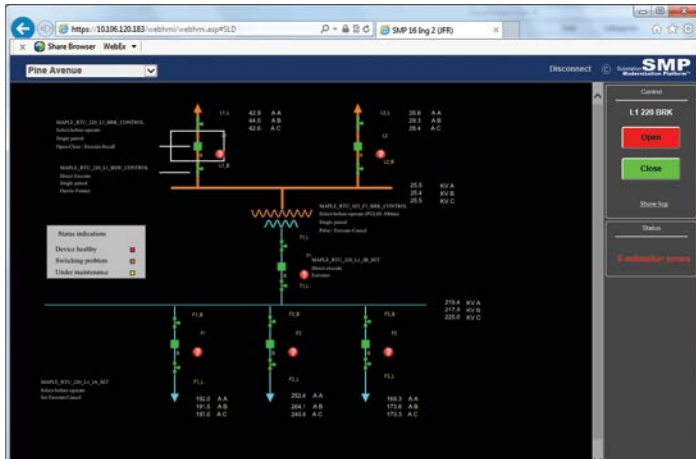
- Template-driven configuration tool and import/export capabilities from other configuration files
- Extensive commissioning and debugging tools, including a protocol analyzer
- Secure remote maintenance
- High-performance system for the most demanding automation projects
- SMP Configuration Comparison Tool, for efficient change management

A complete substation automation solution

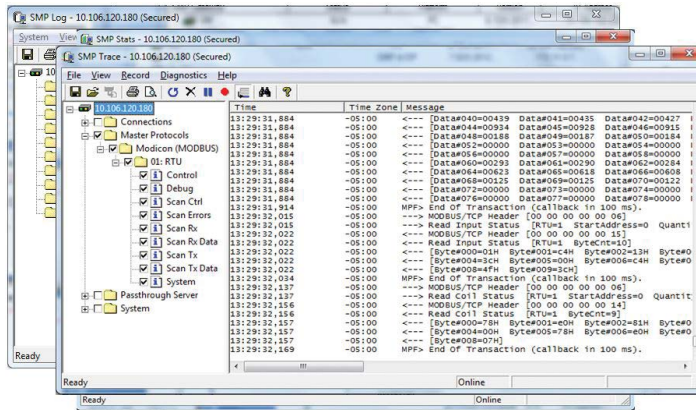
- Upgrade your substation and keep your legacy devices
- Reduce substation downtime
- Improve network reliability
- Reduce total cost of ownership
- Maximum availability with its optional hot-swappable dual power supplies, (SMP SG-4260 only)
- Leverage the SMP SG-42xx platform capabilities and use it as a substation HMI



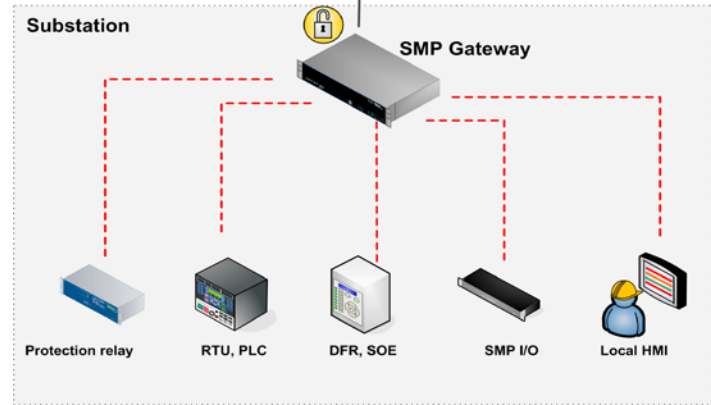
Integrated SMP Gateway HMI: metering display capabilities



Integrated SMP Gateway HMI: single-line diagram capabilities



Embedded protocol analyzer



SMP Gateway schematic

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Power System Division
2300 Badger Drive
Waukesha, WI 53188
Eaton.com/smartgrid

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For Eaton product information, call toll free:

877-834-0009 or visit

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