The power of a SCADA uniquely designed for critical power management

EcoStruxure™ Power SCADA Operation
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Discover Power SCADA Operation

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Perfect for your business
Meet any challenge

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Real-time monitoring and control

In large, power-critical facilities, every second of downtime can cause business interruption and financial loss, put lives at risk, and damage your organization’s reputation. No matter the size or complexity, every part of your electrical system needs to provide reliable power, 24/7. Your team needs continuous visibility into every risk, and the ability to react immediately.

EcoStruxure™ Power SCADA Operation (PSO) is engineered to help facilities like data centers, hospitals, industrials, airports and electro-intensive operations maximize uptime. As a key element of EcoStruxure Power, PSO is a SCADA system uniquely designed for large electrical distribution applications.

With rich data integration from connected devices, PSO’s unique capabilities provide real-time situational awareness, and offer a high performance, cyber-resilient solution for your specialized power networks.

See how we collaborated with our EcoXpert partner, Mardix, to deliver a flagship colocation data center to a West London customer. Watch the video!
Master the most complex electrical distribution networks

Manage and control your medium and low voltage networks with a flexible, secure, scalable, and redundant platform designed specifically for your needs.

Flexible, redundant architecture
With extensive communication and data exchange protocol support, connect to hundreds of smart devices, extracting rich data from meters, relays, circuit breakers, PLCs, RTUs, and more. Native architectural redundancy gives you the peace of mind that PSO will remain reliable even during a worst-case scenario. Generic SCADA platforms simply do not offer the depth of capability compared to a purpose-built Power SCADA.

Information and control exactly how you need it
Stay on top of power system status using patented animated one-line diagrams. Our graphical engine allows HMI and mobile views to be completely customized. Receive alarm notifications in real-time, use power events analysis tools to determine cause and effect, then re-establish normal operation using automated or manual control actions.

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Next generation features

Purpose-built edge platform that adapts to your complex electrical network

• More open protocols with OPC Unified Architecture (OPC UA), bridging IT and production
• High availability mobile notifications
• Seamless integration with Schneider PLCs (including the M580) to monitor and control
• Compliance to IEC-62443 international cyber-security standards
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your business
Ensure safety

Protect people and assets

• Monitor breaker protection settings and ensure proper breaker operation and fault isolation to avoid safety hazards
• Operate breakers remotely to minimize arc-flash risk
• Detect abnormal conditions, such as rising busbar temperatures, that represent a risk to safety and operations
• In hospital operating rooms, protect patient safety during operations by detecting circuit insulation faults
Maintain reliability

Maximize business continuity

• Quickly understand the real-time state of your power system
• Use real-time alarm notifications, filtering, sorting, and categorization to respond quickly to events
• Perform root cause analysis by tracing sequence of events, analyzing waveforms, then quickly and safely re-establish normal operation
• Perform fast, automatic fault isolation and power restoration
• Monitor protection settings to ensure proper isolation of faults to avoid system wide outages
• Analyze the aging of breaker contacts to avoid failures and enable proactive maintenance
• Track system capacity to avoid overloads and make sure backup power systems are able to handle loads in case of an outage
Boost efficiency

Maximize operational efficiency

- Set energy reduction targets and adjust operations for continuous efficiency improvements
- Track how much energy and other utilities (WAGES) are generated, distributed, and consumed
- Avoid power factor and peak demand penalties
- Use shadow billing to identify errors in utility bills
- Create accountability by allocating costs to departments or processes
- Reveal unused system capacity to avoid upgrading or overbuilding
- Showcase energy performance to a broad group of stakeholders via energy kiosk displays
Ensure compliance

Simplify reporting, align with standards

• Comply with energy efficiency and green building standards (e.g. ISO50001/2, SEP, LEED, NABERS)

• Verify utility/grid service and internal compliance to power quality standards (e.g. EN50160, IEEE519, ITIC)

• Ensure regulatory compliance with backup power system testing (e.g. NFPA110 and others)

• Comply with common IT practices (password management, whitelisting, two-factor authentication). Align with cybersecurity global standards such as IEC 62443. Use an industrial-grade firewall to monitor traffic between IT, OT, and Internet network zones. Read the white paper
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Perfect for your business

Choose the segments below to see what Power SCADA Operation can do for your facility.

- Data Center
- Healthcare
- Industry
- Buildings
- Infrastructure

On average, a one-hour power loss event costs a data center $1 million and a compromised reputation. Plus, energy costs now consume up to 50% of a typical data center's operating budget. EcoStruxure Power SCADA Operation provides real-time management, fast disturbance location, improved operator efficiency, KPI reporting, and sophisticated trend and alarm analysis. Discover how a power monitoring and control system can track, monitor, and manage the energy in your data center.

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Hospitals are under increasing pressure to do more with less, while also complying with strict regulations and ever-changing technology. Designed for always-on power environments in hospitals and clinical care settings, EcoStruxure Power SCADA Operation has robust, redundant architectures that provide real-time, accurate system-wide decision-making, increased equipment life, and reduced time spent troubleshooting incidents.
Power is a critical component of production that can affect your profitability and competitiveness. EcoStruxure Power SCADA Operation mitigates this risk and increases productivity. With secure, operator-dedicated, multi-user data and control access, its customized user interface can be fully optimized to your operational workflow. Intuitive commands increase operator efficiency; analyze facility energy performance, and ensure energy efficiency compliance. Make faster, smarter decisions with confidence.
Perfect for your business

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Improving building performance is always top of mind. Power SCADA Operation helps lower maintenance costs, reduce energy consumption, increase equipment life span, and increase occupant comfort and productivity. EcoStruxure Power SCADA Operation can predict future energy consumption, establish energy efficiency benchmarks and help you make informed decisions that reduce energy consumption to improve your building’s energy performance.
Perfect for your business

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Critical infrastructure networks such as air, rail, and port transportation are complex. They need the speed and control of a high-performance SCADA system to reduce outages while increasing power system safely and reliably. EcoStruxure Power SCADA Operation software architecture is designed to be open, scalable, and easily integrated into existing critical systems. Track real-time and historic data, manage maintenance schedules, and monitor facilities, assets, and power network functionality to ensure maximum uptime.
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Future-ready power systems

EcoStruxure Power delivers more safe, reliable and efficient power for peace of mind and significant financial benefits. IoT-enabled future-proof solutions are tailored to meet your specific needs, and simply work. Our digitized LV and MV solutions are powered by innovation at every level enabling enhanced connectivity, real-time operations and smart analytics.

IoT-connected solutions ready to improve every aspect of your electrical distribution system. Take total control with real-time data and smart analytics for predictive maintenance.

Discover more about EcoStruxure Power
This document presents general, non-binding information regarding the potential value that digitized power distribution products and solutions can bring to the user. Due to varying user situations and goals, Schneider Electric does not warranty or guarantee that the same or similar results represented in this document can be achieved. Please refer to Schneider Electric product and solution catalogs for actual specifications and performance.

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