



# Electrical engineering services for data centers

Optimize your data center, maximize your investment

Your data center is the backbone of your business and requires innovative, mission-critical power and thermal management solutions that will drive efficiency, quickly scale to meet your needs and ensure you are optimizing your IT assets. Critical to your business success is finding a partner that delivers the engineering skill, service expertise and interoperability that will lower cost, reduce risk and provide a safer environment across the data center life cycle.

Eaton's global business footprint can partner with your business—wherever it operates—offering local engineering and service providers for immediate support to improve uptime and reduce costs. Eaton offers application-specific experts with demonstrated track records in solving unique problems.

## **Monitoring and management solutions**

Monitoring and managing your data center gives you the power to manage, measure and control your power equipment. Eaton provides different levels of software solutions that combine hardware, software and communication elements to bring diverse power components into a unified system.

## **Foreseer®**

Eaton Foreseer software was developed from the ground up to communicate with hundreds of devices via multiple protocols, monitor device data parameters, and perform alarming and reporting, with data logging limited only by server hard drive capacity. It is fully scalable to support a single data center or multiple facilities no matter where they are in the world.

It facilitates monitoring of infrastructure pieces, including HVAC, UPS, power distribution systems (meters including waveform capture, motor control, protective devices, variable frequency drives, etc.), generators, fire detection, security systems and other communicating sub-systems from hundreds of manufacturers—all on one screen.

## **Power Xpert® Insight™**

Power Xpert Insight gives you the insight into your electrical system components from one central system. Web-enabled hardware devices are fine in limited numbers, but as the number of components grows or becomes more complex, Power Xpert Insight is the logical choice for the required trending, analysis and alarming systems.



*Powering Business Worldwide*

## Design, build, planning and support solutions

Whether designing and building a new data center or retrofitting a current data center, Eaton design experts help you determine the best power solutions with integrated thermal and software management, while ensuring efficiency, cost and safety.

- **Eaton large systems group:** Draw on more than 40 years of experience building and designing large power solutions to meet a wide range of specifications and applications. Leverage tailored power solutions to reduce future risks of costly power-related downtime
- **Data center project management:** Coordinate schedules, interact with on-site teams, resolve systems integration issues and handle logistics

- **Power audits:** Evaluate power systems from substation through critical loads, and then offer recommendations for improving power quality, reducing operating costs and ensuring safety code compliance
- **Computational fluid dynamics (CFD) modeling services:** Compare and substantiate which design decisions maximize your data center flexibility, scalability and resilience, and perform aisle containment testing to improve energy performance
- **Disaster recovery and around-the-clock engineering and customer services:** Rely on more than 1,200 service engineers that are available to meet customer service needs 24 hours a day, 7 days a week. Fully staffed customer service center provides 24/7 technical phone support

## Eaton's Electrical Engineering Services & Solutions range of services

- Equipment setup and installation—pre- and final commissioning
- Technical studies and reports, relay protection, grounding, power quality, partial discharge—online service design
- Maintenance of medium voltage and low voltage system networks and capital equipment (all makes and models, non-destructive, nonintrusive, predictive and conventional time-based)
- Equipment life extension—retrofit equipment and accessories including vacuum breakers
- Local operational site control—'SAPs' based on client's sites (SAP-switching / safe systems / safety rules)
- Training for personnel competency and authorization
- Crisis response and disaster recovery response 24 hours a day, 7 days a week



Foreseer's dashboard provides an overview of all the data center equipment, giving you a customizable, graphic user interface depicting the status of your power, environmental and subsystem components.

Contact your local Eaton representative or visit  
[www.eaton.com/datacenters](http://www.eaton.com/datacenters)  
or [www.eaton.com/eess](http://www.eaton.com/eess)  
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