EATON

Eaton Foreseer® Enterprise Facility Management Software

Product Focus

Proactive management and business intelligence to keep your critical power, environmental, safety, and security systems online and available

Unify the management of the complete facilities infrastructure.

Imagine seeing the solution before the problem...

Eaton's Foreseer system proactively monitors and manages your critical facilities infrastructure, including HVAC, UPS, power distribution, generator, fire-detection, and security systems from hundreds of manufacturers.

With an intuitive graphical interface, Web access, multiple views from global to individual components, multi-level alarm thresholds, and complete asset management capabilities, the Foreseer system provides a much-needed window into the operational state of critical systems.

With Foreseer on watch, you can maximize the availability of essential IT, communications, and process systems in the largest data centers and global enterprises, and take proactive action before trends and issues turn into unplanned downtime.

Set new standards of reliability and availability for critical systems.

Every person and process in your organization relies on an infrastructure that is largely taken for granted— the power systems, environmental equipment, safety and security systems and building controls that are the foundation for everything else. Your facilities team manages a demanding task that may be overlooked until something goes awry. This infrastructure must be 100 percent available 100 percent of the time, even though it faces constant threats from power fluctuations, overheating, intrusion, water leaks and other complications.

Wouldn't it be nice to have an ally that respects the enormity of that responsibility— and makes the job easier and more effective than ever?

This is where the **Foreseer Enterprise Management System** comes in. The Foreseer system lives up to its name, analyzing thousands of data points to proactively manage this critical infrastructure and deliver the business intelligence to optimize operations.

Power distribution systems, uninterruptible power systems, backup generators, smoke and fire detection systems, environmental systems and more... the Foreseer system monitors them all. This system works with more than 500 different devices from more than 100 manufacturers.

Unlike single-point monitoring systems, the Foreseer system provides an enterprise-wide view of all key equipment. It goes beyond monitoring, and helps identify potentially dangerous trends and prevent future failures. And, of course, if there is an unexpected problem, the Foreseer system not only sounds an alarm but also provides instant visibility and accountability of the situation, isolating the cause and helping to resolve the situation quickly.

Critical systems and infrastructures require constant monitoring and vigilant management to stay online and available.

Supported equipment types

Supported equipment types
Computer room air conditioners
Chillers
Leak detection systems
Fuel monitoring systems
Fire detection and suppression systems
Building automation systems (BMS)
Power distribution units (PDU)
Uninterruptible power systems (UPSs)
Generators
Switch gear and automatic transfer switches (ATS)
DC power systems
Static switches
Battery monitoring sensors
Power monitoring systems

Stay fully informed of global operating conditions—from anywhere.

Monitoring and management made easy with an intuitive, Web-based interface

The Foreseer system offers a visual interface that makes it easy to understand logical and physical groups of equipment, as well as detailed information for any site or device. With secure Web access, authorized users across the enterprise— anywhere in the world— can view accurate, real-time information for their sites.

It's easy to customize these graphic views to reflect your actual floor plans and equipment setups. A built-in view editor includes an extensive drawing capability, and you can easily import CAD files, logos, photographs, and other scanned images. Users can modify their own graphics and views to suit their preferences, without interrupting monitoring functions.
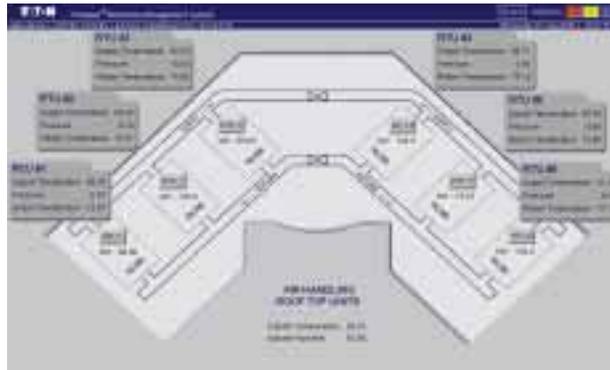
If the facilities team is required to meet service level agreements with internal or external customers, these customers can also gain access to customized views— firsthand proof that your systems are delivering agreed-upon levels of performance.

Receive immediate notification of alarm conditions.

The Foreseer system offers the most advanced alarm management capabilities available in this type of system. For each element being monitored, you can assign up to four alarm thresholds—from routine maintenance alerts to system failure—plus handling instructions and escalation procedures for each.

If the system detects an out-of-threshold condition, it immediately delivers alarm notifications to the right people and systems via alphanumeric paging, e-mail, user messages, and SNMP outputs. This notification follows pre-determined escalation procedures that take advantage of lists, sorting, filtering and broadcasting. Alarm messages with operator instructions can be automatically sent to a network management system, so you can manage events for both IT and facilities on a single platform.

Alarms and status updates follow a familiar traffic signal color scheme, so it's easy to immediately identify the severity of a condition. Green indicates a normal condition, yellow indicates a cautionary condition, and red indicates a critical alarm. Users can drill down into the online view for detailed information on any alarm or remediation procedure.

With flexible, built-in drawing capabilities, you can customize Foreseer views to depict actual floor plans, campus layouts, logical relationships and geographic locations. Enrich these custom views with imported CAD files, photographs and other images. Foreseer system then reflects your actual environment, not some preset template—and the system is easy and intuitive to use.

With secure Web access, authorized users across the enterprise, anywhere in the world, can view accurate, real-time information for their sites. Foreseer system transforms raw data into meaningful knowledge—holistic insights that support the best possible business decisions.

Foreseer system leads the market in number of data channels. Thousands of data points can be continually captured, processed, analyzed and evaluated—covering hundreds of devices from many manufacturers. You never have to guess in advance what data might be important for future analysis; you have access to any data in the Foreseer system at any time.

Create real business intelligence to optimize systems and processes.

Obtain instant access to vital information.

The Foreseer system automatically retains up to three years of online data for each monitored point. Using a built-in report generator, you can present this data in a wide range of useful reports, such as extensive reports of daily, weekly and monthly alarms. At any time, you can also report on diagnostics, system configuration and log files. Each report is time-stamped and can be sorted by device, alarm point, date and time. Alarm reports also include time of user acknowledgement and time of return to normal.

Obtain valuable insight into historical trends to guide today's decisions.

With an array of online statistical and proactive data analysis tools, the Foreseer system transforms historical performance data into meaningful information. You can perform cause-and-effect analysis, impact analysis, capacity planning, preventive maintenance assessments, and trending— gaining a clear window into equipment performance.

Predict future events with a high degree of accuracy.

Many facilities relying only on SCADA (Supervisory Control and Data Acquisition) technology operate in a reactionary mode— responding to issues after the fact rather than predicting and preventing them.

The Foreseer system incorporates intelligent, best-of-breed analytical filters that distill information from thousands of data points per second generated by contact points. Huge data sets can be summarized into easy-to-understand, visual displays that make sense to non-statisticians. Executives, managers, owners and operators can understand system health at a glance. With this information, you can make informed and proactive decisions about repairs, upgrades, expansions, preemptive correction actions, and more.

**A distributed, scalable architecture can be tailored to a wide range of organizations
— from one site with thousands of data inputs to a distributed global enterprise with hundreds of remote locations.
Readily connect equipment and users over networks, modems, T1 lines, or
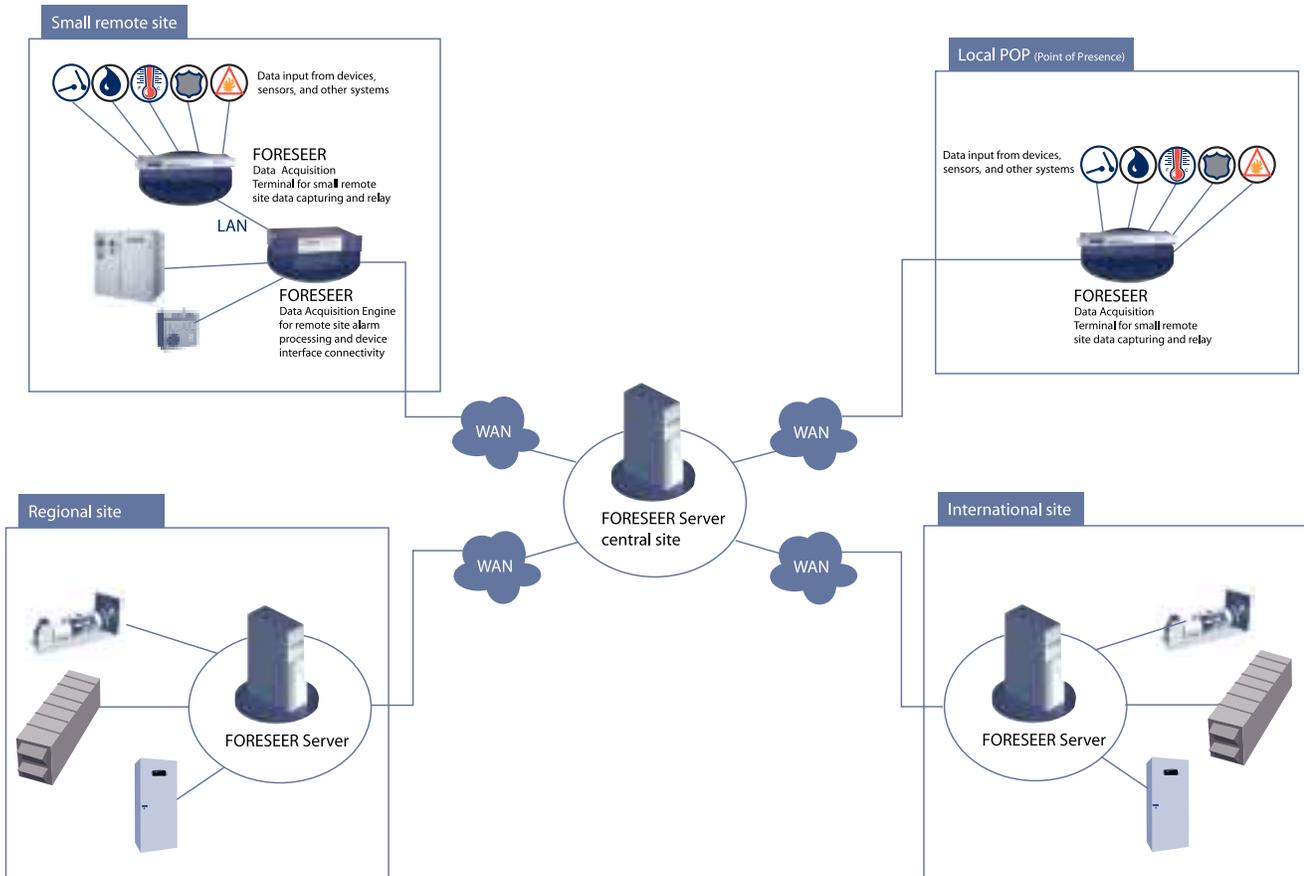virtually any Ethernet or serial connection — anywhere in the world.**

Serve the needs of single-site organizations and global enterprises.

The scalable client/server architecture of the Foreseer system is the foundation of its flexibility. Multi-tiered software and hardware options build on that flexibility. The server software comes in three versions: one for smaller IT or network sites, one for large data or communications centers, and one for enterprise-wide applications.

As a result, one product family can serve a wide range of situations— from a single-location entity with thousands of data inputs to a distributed enterprise with hundreds of remote sites all monitored from a central operations center. The Foreseer system can even audit outsourcing or customer sites, if that fits your business model.

The client software provides a "virtual enterprise" view into all sites equipped with a Foreseer server, making available all data gathered at remote sites. For sites that do not have a Foreseer server, you have two options - deploy a Foreseer Data Acquisition Engine to gather alarm/status information from hundreds of devices or a Foreseer Data Acquisition Terminal for up to 16 devices using relay contact.

With a wide range of connectivity choices over local and wide-area networks and the Web, authorized administrators can gain a real-time view into operation status of any site at any time, from anywhere.

Clustered Foreseer servers provide backup for each other to maximize system availability and support disaster recovery.

Sophistication made simple

For more than 15 years, Fortune 500 companies have relied on Foreseer to help protect critical sites around the world, including data and telecommunications centers, Internet service providers, co-location sites and process control sites. All Foreseer systems are installed, serviced, and supported by Eaton professionals. Several installation options and services are available to meet your specific needs, including complete turnkey project management, ongoing operation and on-site training.

Add value and confidence to any enterprise

With the Foreseer system, you have the tools and insights to keep your critical facilities infrastructure operating at optimum performance and availability—the essential foundation for the "five-nines" and higher availability that data center managers are being pressed to deliver.

Even if administrators are at home, off-site, or attending to other tasks, they have at their fingertips the early indicators and tools they need to prevent system crashes, avoid data loss and corruption, protect hardware or firmware from damage, and ensure trouble-free operations.

The Foreseer system delivers confidence—confidence that the critical facilities infrastructure is performing as it should... that personnel will get immediate alerts, in time to resolve, not just react... that you can foresee and plan for the future.

To find out more about how Foreseer enterprise facility management software can enhance the reliability and value of your power distribution, environmental and safety/security systems, visit our Web site at **http://www.powerware.com/foreseer** or call the Foreseer office at 1.800.356.3292.

Foreseer enterprise management software is...

• **Simple.** Monitor and manage electrical, environmental, and life safety equipment from one system.

• **Comprehensive.** A complete package of software, hardware, and services supports the full range of notification, event management, and analysis functions.

• **Proactive.** Leverage historical data for capacity planning, real-time failure prediction, and trend analysis.

• **Easy to use.** Web-browser-based interface provides graphical views of data, rapid identification of trouble conditions, and how to resolve them.

• **Multi-dimensional.** Click to display real-time operational status for an entire enterprise, a site, specific piece of equipment, or detail on any alarm condition.

• **Revealing.** Specialized data views surface hidden information, such as power and cooling capacity, power density (watts/sq.ft.), cooling load levels, power allocation by branch circuit, and more.

• **Scalable.** The system can be easily configured to match your unique environment, no matter how large, complex, or distributed.

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Take the first step in protecting your mission-critical operations.

Call Eaton today and discover how the Foreseer system can help.

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