Powering a leader in compliant colocation and data center services

Location:
Cleveland, Ohio

Segment:
Data centers

Problem:
To meet stringent compliance requirements, the company needed a power management and monitoring solution offering the highest level of reliability.

Solution:
Eaton® Power Xpert™ 9395 UPS, ESS, Service, medium voltage switchgear, switchboards, panel boards, meters, and PDUs

Results:
The Eaton solution exceeded all expectations, providing the highest uptime—plus efficiency, redundancy and scalability—at the lowest possible cost.

ByteGrid chose Eaton based on its industry leadership in power efficiency, reliability and safety. The Eaton solution was comprehensive with the most power, the most redundancy, the most efficiency and the best local service.

Mike Clemson, vice president, critical infrastructure

Background

ByteGrid is a leading provider of highly compliant hosting data center and IT infrastructure solutions ranging from colocation to hybrid cloud.

There are eight ByteGrid data centers across six geographically dispersed markets. Encompassing more than 750,000 square feet of premier multi-tenant colocation data center space, the company takes pride in meeting the highest standards for security and reliability. Some of the world's largest companies and government agencies, including numerous Fortune 50 companies, rely on ByteGrid for data center services.

As the city's largest colocation, ByteGrid's Cleveland Technology Center (CTC) hosts large and midsize enterprises, as well as federal and other regulated organizations. In addition, the location's bisection of major Midwest and East Coast business centers makes it an ideal disaster recovery location for markets such as Chicago and New York.
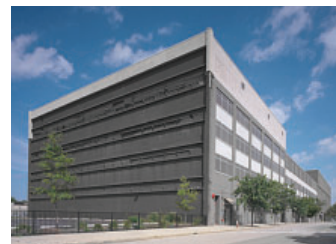
ByteGrid

Challenge

When it began planning a major expansion of the CTC, ByteGrid embraced a lofty aspiration: to deliver customized data center solutions with the highest level of compliance.

"No other data center in Cleveland is doing this," reveals Mike Clemson, the organization's vice president of critical infrastructure. "Our pledge is to tailor the exact space that each customer desires, not a one-size-fits-all approach like many of the other providers do."

Furthermore, ByteGrid's Compliance-as-a-Service (CaaS) approach features specialized capabilities for enterprise and government organizations in other regulated industries such as life sciences, biotechnology and healthcare. By offering significantly higher levels of compliance and accreditation to IT infrastructure services customers, the company has further distinguished itself from the colocation crowd.

A key factor to achieving such a unique and extremely compliant approach was the inclusion of a world-class power management solution within the company's exceptionally secure, 333,215-square-foot Tier 3 space. In order for ByteGrid's government, technology and

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telecommunications customers to attain their required certifications, the company recognized the need to provide a high availability environment. As such, only an uninterruptible power system (UPS) offering unparalleled reliability would be appropriate for ByteGrid. Redundancy, efficiency and exceptional service also ranked high on the company's list of prerequisites. All of these objectives were brought to E Technologies Inc., and together they discovered Eaton to be the ideal solution.

Solution

To ensure a supreme level of power to its critical IT systems, ByteGrid worked with E Technologies Inc. to install a comprehensive Eaton solution, including a pair of 1.5 megawatt Eaton PowerXpert 9395 UPSs with Energy Saver System (ESS), medium voltage switchgear, switchboards, panel-boards, meters and power distribution units (PDUs).

"ByteGrid chose Eaton based on its industry leadership in power efficiency, reliability and safety," Clemson explains. "The Eaton solution was comprehensive with the most power, the most redundancy, the most efficiency and the best local service."

Boasting industry-leading efficiency and modular redundancy, the unique design of the 9395 has enabled ByteGrid to lower total cost of ownership (TCO) in a variety of ways, including emitting

33 percent less heat while delivering up to 20 percent more power in the same footprint. The unit also relies on Hot Sync paralleling, superior battery management and inherent redundancy for ultimate reliability.

Leveraging Eaton's groundbreaking ESS technology, the 9395 is also able to facilitate up to 99 percent efficiency across most loads

while increasing power system reliability. This is made possible by an intelligent "power core," which adapts to incoming power conditions to deliver clean power to the load and maximize efficiency.

"Eaton's power management solutions support ByteGrid's focus on reduced operating costs associated with our Tier 3 / 4 data centers," Clemson confirms. "This is the most powerful and contemporary data center in Northeast Ohio, bar none."

Additionally, the Eaton UPSs promote reliable operations and accurate metering of power within ByteGrid's data center. The 9395's multi-module, scalable architecture further enhances TCO with the ability to adapt to future changes in load demands without requiring the purchase of an additional UPS.

"We won't need to upgrade or tweak our solution because it's already delivering the most efficient and scalable package available, which means our customers are reaping the greatest value too," Clemsoni reports.

The UPSs also feature 10-inch LCD touchscreens with an easy-to-use interface that shares graphical energy data to help manage power consumption and costs, a significant advantage in the colocation space. "Our facilities team really appreciates having that kind of information so easily available," Clemson says.

Indeed, the ability to maintain instant access to information is critical to ByteGrid. With that in mind, the company is preparing to deploy PredictPulse™, Eaton's next-generation remote monitoring and management service that collects and analyzes data from connected power infrastructure devices to help reduce the risk of downtime. Enhancing existing power monitoring tools and resources, the PredictPulse

service allows Eaton experts to monitor devices remotely and call attention to any issues, so ByteGrid can focus on its own business and IT priorities. By viewing real-time device details, alarms, key performance metrics and service history on an online dashboard and receiving a monthly summary report, the facility remains up-to-speed on the status of their power infrastructure and any trends that might develop.

Mike Clemson points out that being able to spot issues before they happen will be a huge differentiator over any competitive offering. "This is yet another Eaton innovation that places the company head and shoulders above others," he praises. "A contemporary data center like this needs a cutting edge partner like Eaton."

ByteGrid further safeguards against unexpected downtime and equipment issues with an Eaton service plan, which includes regularly scheduled preventive maintenance visits by trained customer service engineers. "Eaton technicians are hands-down the best in the business," says Clemson. "And we recognize that access to timely and professional service is a key component for ensuring sustained security and enhancing customer value."

The complete Eaton solution has significantly contributed to ByteGrid's successful expansion. In fact, during a recent tour of the Cleveland facility, one prospective customer acknowledged that its executive team would never have considered using colocation in the past— but ByteGrid has changed its opinion. "That's because their view of what a colocation data center is all about is very different than what we are able to offer here," Clemson emphasizes. "Our customers can build out their own unique area as a completely custom data center. It's a real game-changer."

Results

As ByteGrid continues to establish itself as Cleveland's leading provider of secure and compliant IT infrastructure solutions, the company's efforts have been supported by a cohesive and collaborative team at E Technologies Inc. and Eaton.

"ByteGrid's partnership with Eaton allows us to provide our customers with world-class power systems that deliver the highest levels of redundancy, fault-tolerance and operating efficiency," Clemson sums up. "Cleveland businesses have some of the most demanding requirements for performance and compliance, and we are proud to be able to deliver."

With the Eaton solution in place, ByteGrid is able to:

Provide a robustly designed data center by partnering with Eaton on end-to-end power quality and distribution equipment

- Ensure continuous uptime and the highest level of reliability for its colocation customers, while meeting the specialized requirements of the CaaS approach
- Gain industry-leading 99 percent efficiency through ESS, without sacrificing reliability
- Easily expand its backup power solution with the 9395's scalable architecture
- Maintain the overall health and optimal performance of its power protection solution with an Eaton service plan and support from local technicians

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For more information, visit: **Eaton.com/powerquality**

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