

"It's performed as expected without the slightest hiccup."

Josh Frank, network administrator

Eaton 9170+ proves to be smart choice for university

Location:

Raleigh, N.C.

Segment:

Higher Education

Problem:

When consolidating several equipment rooms into a single data center, the university sought a highly reliable, scalable and centralized UPS solution.

Solution:

Eaton® 9170+ UPS

Results:

The Eaton 9170+ answered the call for reliability, scalability and centralization.

Background

Named in honor of a historic Raleigh businessman and church elder, William Peace University was founded in 1857 as Peace Institute. The school originally provided primary grade education, as well as instruction for women from high school to college level. Located on a 21-acre campus in the heart of Raleigh, the university today serves some 800 students, with an academic program ranked among the best in the nation, according to the National Survey of Student Engagement.

Offering 12 majors and a variety of honors classes, William Peace University is home to more than 30 student clubs and organizations, performance groups, academic societies and three student-run publications. On average, more than 90 percent of the university's graduates are placed in jobs or accepted to graduate school within one year of graduation.

Challenge

Last year, as part of a project that consolidated three separate rooms of networking equipment into a single data center, William Peace University sought to upgrade its power protection solution. Acknowledging that the batteries in its previous uninterruptible power systems (UPSs) were past their useful life, Network Administrator Josh Frank reveals that he wanted a single, centralized UPS that could sustain the range of equipment within the new data center.

"We wanted to have a solution that would be able to take care of the whole room and provide us with a centralized UPS for the entire data center, rather than having individual UPSs in each rack," Frank explains.

Reliability was also paramount, since the UPS would be responsible for ensuring uptime to all critical data center functions, including Internet connectivity, firewall, storage area network (SAN), telephone system, multiple servers and the university's entire virtualized environment. "With unplanned downtime, students and staff would lose access to all IT and telephone resources," Frank emphasizes.

Furthermore, the university required a UPS with both a redundant and expandable design in order to ensure ongoing reliability and protection well into the future.

Solution

After investigating a variety of options from different UPS manufacturers, William Peace University discovered that the Eaton 9170+ ranked at the top of its class. Having selected a 15 kVA model, the UPS was installed in the new data center in September 2012.

An ideal power management solution for mission-critical applications seeking optimum reliability, the 9170+ delivers the highest level of power protection available by eliminating any single point-of-failure with N+X power and logic redundancy. Furthermore, since the 9170+ houses both the logic and power within the modules and not within the enclosure, redundancy is facilitated for the entire UPS. At the same time, the online design of the UPS completely isolates connected equipment from all incoming power problems, while a high wattage output powers more of today's modern power supplies.

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It was the scalable, modular design of the 9170+ that impressed William Peace University most. Having initially deployed a 15 kVA unit, the university has the option of easily expanding power, redundancy and runtime as needed, through the addition of plug-and-play 3 kVA battery and UPS modules.

"As our needs in the data center change, we will easily be able to expand the Eaton unit to meet them," Frank says, noting that more battery modules will ultimately be added to support runtime requirements in the future.

The 9170+'s sleek tower design — which can either be rack-mounted or configured as a stand-alone unit — also proved to be advantageous to the university, as the unit occupies minimal floor space within the data center. "The ability to use the unit in a free-standing footprint, rather than in the racks, worked out really well for us," Frank reports.

The network administrator is also quick to praise the ease with which the 9170+ was deployed. With universal components that easily fit into any slot without affecting the operation of the system or the protection of the critical load, the 9170+ is exceptionally simple to install and configure. Furthermore, its ongoing performance and serviceability are enhanced with the unit's hot-swappable power and battery modules, which weigh less than 30 pounds each. "It was very easy to install, we did it ourselves," Frank says.

William Peace University also plans to implement Eaton's Intelligent Power® Software Suite, which delivers all of the tools needed to manage power devices, even in virtual environments. The innovative software solution ensures system uptime and data integrity by enabling remote monitoring, management and control of devices on a network.

"Having the virtual integration is something that was a nice bonus," Frank says of the software. "Right now we monitor the unit with SNMP, but we're looking to replace the UPSs in our closets and when we do that, we will then work toward a central monitoring setup using the software."

Although the 9170+ came with a warranty, the university intends to add a service plan, which will help ensure the ongoing health and reliability of the UPS with regularly scheduled preventive maintenance visits from a trained Eaton technician. "With anything that's mission-critical for the university, I like to have a service plan," Frank points out.

Results

Noting that the university has experienced at least four or five power events since the unit was installed, Frank reports, "It's performed as expected without the slightest hiccup."

Indeed, with the 9170+ in place, the university is able to:

- Ensure high availability for its data center equipment with the reliability and redundancy of the 9170+
- Easily grow the system in capacity or runtime thanks to the scalability of the unit
- Centrally manage a single power protection solution
- Gain control and visibility into its virtualized environment with Eaton's power management software
- Preserve the ongoing health of the unit with an Eaton service plan



Eaton 9170+ UPS

Learn how the Eaton 9170+ can help you at Eaton.com/9170+.

Eaton
Electrical Sector
1000 Eaton Boulevard
Cleveland, OH 44122 USA
Eaton.com

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