Success Story: Sumter County Clerk of Courts

Markets Served
Data Center & IT

"Eaton was able to provide a solution that went beyond what we had initially projected would work within our budget … we got more for less, which doesn't usually happen in an IT scenario."

Brian Berry, director of technical services

Robust BladeUPS delivers more for less

Location:
Bushnell, Fla.

Segment:
Government

Problem:
Insufficient UPS capacity and lack of central management capabilities were challenging the County's ability to ensure high availability to its data center.

Solution:
Eaton® BladeUPS, Advanced Managed ePDUs, Intelligent Power Software, Service

Results:
Ultimate reliability and manageability were achieved with the BladeUPS, which also addressed the County's scalability and redundancy desires.

Background

From transferring property records to assessing traffic and criminal fines, the flood of paperwork that passes through Sumter County Clerk of Courts requires that a robust — and highly available — data center be operating behind the scenes. The organization is responsible for maintaining all public records and court documentation for the county of more than 96,000 residents.

As the director of technical services, Brian Berry oversees the management, maintenance and implementation of these services for Sumter County Clerk of Courts' locations. At the core is a data center consisting of three racks of IT equipment with 12 physical servers and a virtual environment supported by VMware, plus a fourth rack reserved for power protection equipment. This infrastructure maintains data replication and operations between the central court house complex, three satellite complexes and a complex in Tallahassee.

Challenge

In early 2012, as Sumter County Clerk of Courts was in the process of evaluating its data center services, it became apparent that the organization needed to enhance its power management capabilities. "We had recently implemented the VMware solution and noted a few power-related performance issues, specifically the range of power that was available to support our applications," Berry recalls. "The prior UPS system had been put into place in 1999 and was not only due for an upgrade, but was running out of capacity. We were hitting a severe bottleneck."

First and foremost, it was essential that a new solution be able to deliver unparalleled reliability, including the ability to weather Florida's persistent power issues. "Our organization is responsible for all county records, so downtime for us is very, very bad," Berry emphasizes. "Without power, we would not be able to record documents and official records, there would be delays in transferring property records, we would be unable to assess traffic and court fines … so it would be a major issue if we had downtime."

In addition to its reliability and capacity requirements, Sumter County Clerk of Courts needed a power protection solution capable of expanding with its data center. "One of our biggest concerns was implementing a scalable system that provided us with the opportunity to grow with our IT requirements," Berry confirms. "We typically operate on a 10-year technology refresh cycle and needed a solution that could support our growth for the next decade."

Furthermore, the organization sought to implement a centralized UPS that could be easily monitored and managed, unlike its previous solution of individual units scattered throughout the data center. And finally, a new UPS had to be economically feasible within the county's budgetary restrictions.

Then, as Sumter County Clerk of Courts began working with various consultants involved in the project, yet another attribute was identified: a UPS solution that would provide inherent redundancy to further increase IT system protection.

"We wanted something in place that we didn't have to worry about," Berry emphasizes. "We wanted a UPS where we could have confidence that it would do the job correctly every time, not where we would have to cross our fingers and hope."

EATON
Powering Business Worldwide

Solution

After assessing a variety of UPSs from multiple manufacturers, Sumter County Clerk of Courts discovered everything it was seeking — and more — within the Eaton BladeUPS. The organization supplemented the 24 kW UPS with an Eaton rack, as well as horizontal and vertical Advanced Monitored ePDUs for rack-based power distribution.

"Eaton was able to provide a solution that went beyond what we had initially projected would work within our budget," Berry reveals. "In other words, we got more for less, which doesn't usually happen in an IT scenario."

Specifically designed for high-density computing environments, the revolutionary BladeUPS delivers 12 kW of efficient, reliable power while occupying just 6U of standard rack space, which includes the batteries. Capable of expanding from 12 kW to 60 kW in a single industry-standard, 19-inch rack, the unit offers a scalable architecture that enables the solution to grow with expanding IT applications – one of the benefits Sumter County Clerk of Courts values most.

"We built the system to twice the capacity of what is currently needed to give us some immediate expandability over the next two to three years," Berry explains. "And we built the enclosure design on twice that, so we actually have four times greater scalability than what we initially needed. Because of that, we probably won't see any need to expand the UPS for at least two years. That was the whole beauty behind the system —we could put it in at a lower cost than what we'd planned, and going forward, we can increase the size at a lower cost point."

Even more, the BladeUPS provides the highest level of reliability using patented Powerware Hot Sync® paralleling technology, which allows each UPS module to operate independently – yet completely synchronized with the others – eliminating any single point of failure.

"The BladeUPS system from Eaton was ideal for our situation," says Berry. "The rack-based units are incredibly scalable, so we can easily expand our capacity in the future. Additionally, we are able to parallel the BladeUPS power modules within the rack to increase the redundancy of our system."

The BladeUPS is also contributing to today's focus on energy conservation with its industry-leading 97 percent efficiency that can save customers thousands of dollars in power and cooling costs. The unit's high efficiency also results in extended battery runtimes and cooler operating conditions for the UPS, both of which extend the overall life of components and further bolster reliability and performance.

While Berry hasn't yet calculated the exact numbers related to efficiency, "I do know there have been some significant cost savings there," he acknowledges. "The air conditioning units are definitely not running as often or as hard."

The ability for Sumter County Clerk of Courts to now centrally manage its power protection solution is yet another reason the BladeUPS is garnering high ratings from the organization. Further enhancing manageability is Eaton's Intelligent Power Software Suite, which delivers all the tools needed to manage power devices in a physical or virtual environment. The innovative software solution ensures system uptime and data integrity by allowing the county to remotely monitor, manage and control the devices on its network.

"We get daily alerts and we keep an active watch on what the system is doing," Berry says. "We can ensure that the power coming in to the building and our load management are being properly handled."

Sumter County Clerk of Courts also opted to bolster its runtime to one hour by adding additional modules to the BladeUPS. "We knew that because we are in Florida, and because we have issues with the power grid, that was something we were going to need," Berry explains.

That foresight proved invaluable during a recent power outage. Berry recalls that he was working in the data center when the power grid for the entire city of Bushnell shut down. The outage tripped a breaker at the facility, which in turn caused the building's generator to reset —and subsequently took 15 minutes to fully power on.

"The power in the whole building went out, but the UPS system immediately came on," Berry recalls. "We had zero interruption of service, and it functioned exactly as it's supposed to."

Berry also values the ability to monitor and control power consumption at the individual outlet level, thanks to Eaton's Advanced Monitored ePDUs. "Our prior solution did not provide the ability to monitor down to the outlet level, so we are now able to better manage our power consumption, as well as monitor voltage, current and power factor through the incoming power lines to ensure our server systems are always receiving a constant power supply," Berry explains. "This is important because our facility has been under construction lately and we are able to be alerted of any power issues. We can also control the power at the outlet level, which enables the safe remote shutdown of our servers if a problem was ever to arise."

Rounding out the county's solution is an Eaton service plan, which includes regularly scheduled preventive maintenance calls to keep the BladeUPS performing at an optimal level. "I like having support from the manufacturer and having somebody stand behind their product," Berry explains.

Results

"The Eaton support team has been outstanding and very attentive to what our needs and requirements are," Berry sums up. "They worked hand in hand with us to make sure we were happy with the system."

With the Eaton solution in place, Sumter County Clerk of Courts is now able to:

- Ensure continuous uptime and high availability to its critical data center equipment
- Effortlessly upgrade its power protection with the scalability of the unit
- Achieve additional reliability by paralleling the BladeUPS for redundancy
- Easily manage its power protection solution with the centralized UPS, complemented by power management software
- Cut energy and cooling costs with the high efficiency of the BladeUPS
- Gain monitoring and control of power consumption at the individual outlet level with Advanced Monitored ePDUs

Eaton BladeUPS

Learn how the Eaton BladeUPS can help you at **Eaton.com/BladeUPS**.

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

Printed in USA
CS153006EN
March 2013

Powering Business Worldwide