Eaton 9390 UPSs Are Top Dog At the American Kennel Club

Product:
Eaton® 9390 UPS

Location:
Raleigh, N.C.

Market Served:
Data Center

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- Charles Kneifel,
Chief Information Officer

Background

Founded in 1884, the American Kennel Club (AKC) is dedicated to promoting purebred dogs, and strives to advance their study, breeding, exhibiting, running and maintenance. Along with its affiliated organizations, the AKC advocates for the purebred dog as a family companion, while working to advance canine health and well-being, protect the rights of all dog owners, and promote responsible dog ownership.

The AKC web site not only serves as an expansive information portal for canine enthusiasts, but also provides the ability for owners to register their individual dogs and litters, and sign up for hundreds of shows and events across the entire country.

Challenge

They say every dog has its day, and for the AKC's IT department, that day came in March 2008 with a move to a brand new data center facility. As part of the Raleigh-based organization's relocation to the newly constructed building 10 miles from its previous site, AKC had the opportunity to design a data center from the ground up, including the selection of a comprehensive power protection solution.

Comprising approximately 2,500-square-feet within AKC's three-floor building, the data center houses a wide range of equipment, including five rows of blade servers, Cisco switches, and a Voice over Internet Protocol (VoIP) system that serves more than 300 employees. When outlining the blueprint for its future data center, the AKC sought an uninterruptible power system (UPS) capable of safeguarding these critical systems and network infrastructure, as well as the organization's high-traffic web site.

Any amount of downtime puts the organization at risk for ending up in the doghouse with its customers, especially during peak registration and publicity periods when scores of people are driven to the web site.

"We're much more efficient and cost-effective as an organization if people are doing their activities online," acknowledges the AKC's Chief Information Officer Charles Kneifel. "We host a pretty popular web site here and we absolutely have to be up and running, especially when our televised dog shows are bringing a lot of people to our site."

In addition to a UPS featuring the highest level of reliability, the AKC required a solution that offered redundancy and the ability to accommodate future growth.

"We wanted to know that we could buy something appropriate for our current needs but not have to throw it out and replace it if our power needs changed in the future," Kneifel explains.

Furthermore, another key prerequisite was a UPS that would complement the data center's overall vision, including the decision to rely on track busway — a modular, build-as-you-need-it overhead system — for all electrical and power distribution.

"We wanted to be able to use the UPS efficiently with overhead bus bar power distribution, which was one of the main criteria," Kneifel confirms. "We didn't want anything but cold air and some fire suppression under the floor."

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To immunize itself against these potentially devastating threats, and ensure that patient care is never compromised, ARH sought a premium UPS capable of safeguarding the 50-plus mission-critical servers within its data center. The organization also wanted a solution it could grow into, as well as one that would facilitate easy maintenance.

Solution

The selection of the three-phase Eaton 9390 UPS — boasting the highest level of reliability and efficiency in the industry —got tails wagging at the AKC's new facility. Indeed, the double conversion unit boasts an impressive combination of power performance, battery management, scalable architecture, flexibility, power density, and a comprehensive warranty and service plan.

With the ability to support large loads with redundancy, the 9390 proved to be a perfect fit for the AKC, which purchased a pair of 120 kVA units. Running redundantly with the company's servers and fed through the busway power distribution bar, the UPSs deliver the high availability and uptime demanded by the AKC.

"We had Eaton units in the past and we were happy with their reliability," notes Kneifel.

Thanks to the 9390's scalable architecture — which allows up to six modules to be paralleled for additional capacity or redundancy — the organization also has plenty of room for future growth. Even more, the 9390 can expand without having to utilize a central bypass cabinet. Furthermore, in all

paralleling configurations, each module operates independently, with the ability to deliver N+1, N+2 or greater redundancy. Upgrading a 9390 is as simple as a phone call to an Eaton customer service engineer (CSE) to request an internal upgrade, which can be performed on site without costly additional cabinetry or connections.

"The field upgradeability of the 9390 was important to us," Kneifel acknowledges.

"We built out our solution around reliability and redundancy requirements, and other features of the UPS were definite differentiators."

Among them was the 9390's high efficiency rating of 94 percent (with up to 99 percent possible when using Eaton's Energy Saver System), which lowers total cost of ownership by reducing the cost of power to support protected loads. Because the 9390 runs efficiently and produces less heat, it also slashes facility cooling costs.

"Overall we have lower operating costs," Kneifel reveals, adding that the new data center was also outfitted with high-quality air conditioning units. "Our energy costs are lower than they used to be."

In addition, the 9390's high power factor of 0.9 protects more equipment while further reducing total cost of ownership, maximizing compatibility and meeting high power factor load requirements, all benefits valued by the AKC. "The efficiency and high power factor were both important to us," Kneifel says.

As a pre-wired integrated module, the 9390 also eases serviceability and accessibility with convenient, front-panel access. "The UPS's entire design element is quite good," Kneifel points out. "We can switch to bypass and do maintenance on the units. The whole power infrastructure is out there in the open and allows us to do anything we need to."

Additionally, Kneifel praises the robust manageability of the 9390 units. "The centralized UPSs are certainly easier to accommodate than having a bunch of individual modules in racks," he confirms.

For even greater manageability, the AKC relies on the ConnectUPS Web/SNMP card, which enables convenient monitoring capabilities, while simultaneously providing graceful shutdown for multiple systems over the network.

Implementation

When AKC installed the two 9390 UPSs within its data center — which is located on the second floor of the building — the deployment was a "pawsitive" success, thanks in large part to the unit's flexible installation options. In addition to offering the smallest footprint of any UPS in its class — 35 to 50 percent smaller than competitive units — the 9390 weighs less than other models, which allows it to fit in standard elevators and through most doorways with ease.

"The small footprint was one of the aspects we really liked," says Kneifel.

A highly trained Eaton CSE performed the startup of the AKC units — an advantage included with every 9390 purchased. In addition, Eaton includes a full year of onsite 7x24 parts and labor warranty and service protection plan at no extra cost.

Result

Thanks to the reliability of the 9390 UPSs within the AKC data center, there hasn't been so much as a whimper over any downtime issues. "The UPSs are supporting essentially all of the IT infrastructure for the AKC," Kneifel says. "There's a great peace of mind that comes with the flexibility of the solution … of not having to worry about where things are, because the infrastructure is open and available to us. We don't have to make our decisions based on what power we have, and where it is, and the quality of that power."

Indeed, with the Eaton 9390 solution in place, the AKC is now able to:

- Ensure the continuous uptime of its web site, phone system and entire data center infrastructure

- Gain added peace of mind and reliability with the 9390's redundancy

- Easily expand its power protection solution as needs evolve, with the 9390's scalable and field-upgradeable architecture

- Lower operating costs with the UPS's increased efficiency

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