

Reviews are in: Eaton lauded as best in class

Location:

Cincinnati, Ohio

Segment: Testing lab, news and reviews

Product:

Intelligent Power Manager, Eaton[®] BladeUPS, ePDU G3 units, S-Series and RS Enclosure

Problem:

The company needed a highly reliable, scalable power protection solution with superior monitoring and management capabilities.

Results:

The organization discovered that Eaton could deliver far more than just a UPS, and now relies on the company for a comprehensive data center solution that includes a wide variety of integrated equipment. "There really isn't any competition for Intelligent Power Manager. I haven't seen anything even remotely comparable. Eaton clearly wants to be more than just a power company." Brian Beeler, editor in chief

StorageReview

Background

StorageReview is a leading independent storage authority, providing in-depth news coverage, detailed reviews, and lab services on storage arrays, hard drives, SSDs, and the related hardware and software that make these solutions work. With an emphasis on storage solutions for the midmarket and enterprise, StorageReview collaborates with industryleading vendors across multiple market segments to offer informative evaluations of newly released and next-generation solutions.

To properly evaluate hardware and produce industryaccepted performance and usability metrics, the optimal testing environment is essential. Vendors work with StorageReview to provide input and feedback on testing methodologies, as well as contribute gear to the company's lab, which is incorporated into its diverse testing environment. To that end, StorageReview has built one of the largest independent test labs capable of putting hardware through rigorous real-world testing scenarios and ultimately providing buyers the information they need to make an informed purchase decision.

Challenge

Since the company's inception, one of the most critical considerations for executives has been how to properly protect the extensive range of high-dollar hardware being tested within the lab. With the bulk of equipment comprised of various servers and storage devices, StorageReview houses several million dollars' worth of equipment at any given time.

"Making sure nothing happens to the hardware that is under our review process is one of our biggest concerns," acknowledges Brian Beeler, editor in chief. "If a power surge was to happen, and equipment was damaged, who would be responsible? We don't want to even have to worry about that."

StorageReview recognized the need for a high-quality uninterruptible power system (UPS) capable of safeguarding the extensive lineup of loaned equipment. In addition to unparalleled reliability, the company sought a UPS manufacturer that could offer ease of integration, a broad range of products, and extensive management capabilities. Scalability was also desired by the growing company.



Solution

After evaluating multiple UPS models from various manufacturers, StorageReview bestowed top honors to Eaton®. The company not only published rave reviews on the Eaton UPSs it tested, but chose to deploy the products within its own environment.

"We like the fact that we don't ever have to worry about power issues," Beeler says. "It's incredibly reassuring knowing that no matter what, all of the devices in our lab have clean power. Companies can send us a product without worrying about shipping an entire environment for us to test it in."

While StorageReview initially relied on Eaton 5PX and 9PX UPSs, the company's growth over the years necessitated a larger testing lab. As a result, the firm recently completed an overhaul of its facility and with the additional space, began to leverage significantly greater quantities of hardware. This, in turn, led to much greater power requirements.

"Our new lab design offers a friendly 'urban' atmosphere geared toward on-site visits, as well as efficient hardware installation access to reduce time from box-to-rack in our evaluation process," notes Beeler. "We've grown, not necessarily in the way you'd want to, but in a way that was necessitated."

Working closely with Eaton, StorageReview expanded its primary lab from three to five racks, migrated to a pair of 12 kW Eaton BladeUPS UPSs, and streamlined power distribution with Eaton metered and managed ePDUs, reveals Kevin O'Brien, lab director.

Specifically designed for high-density computing environments, the BladeUPS delivers 12 kW of efficient, reliable power while occupying just 6U of standard rack space, including the batteries. Capable of expanding from 12 kW to 60 kW in a single industrystandard, 19-inch rack, the UPS's architecture easily grows with IT applications, which was a key consideration for StorageReview.

"One of the most initially appealing aspects of the BladeUPS was the unit's scalable, modular design," O'Brien confirms. "We love the fact that we only have to install it once. With its modular design, as our needs grow, we're able to slot in additional power modules and be up and running with additional capacity in 20 minutes."

"We started with single rack and now we have eight," Beeler adds. "And that scenario is really no different than what almost any small enterprise encounters. It's about finding some degree of success and then needing to grow your data center. Scalability in a UPS is essential to that."

StorageReview is also relying on two models from Eaton's cutting-edge ePDU G3 family. The metered units feature bestin-class technologies, including ±1% billing grade accuracy, an advanced LCD pixel display, a hot-swap meter, and the ability to daisy chain four ePDUs to share the same network connection and IP address. The managed models offer advanced power management and precision control including the ability to measure power consumption at the outlet level, turn off unused outlets, remotely manage equipment and obtain level 3 PUE (power usage effectiveness).

"We're acutely aware of where our power usage is on a daily basis," Beeler says, "which is great, considering that electricity costs are one of the largest operating expenses for data centers."

"With the managed PDUs, we really like the ability to group together specific outlets into a device profile," O'Brien adds, noting that when a particular review is complete, he can power down the entire device group. "It makes it so easy having multiple outlets in one device profile, to manage multiple pieces of hardware at the same time." The company also deployed several of the Eaton's S-series enclosures, and will soon incorporate the brand new RS Enclosures, which are easy-to-configure racks with tool-less installation options available in application-specific configurations for network, server and colocation.

Beyond the reliability and flexibility of its power protection solution, StorageReview has found additional value in the comprehensiveness of the Eaton product line.

"It's been nice having an integration point where we can easily connect the UPS, power distribution and the rack, and everything works together," O'Brien says. "One of the main reasons we went with Eaton was the unique integration offered across all product lines and in particular, the software."

Indeed, Eaton's Intelligent Power Manager (IPM) provides an impressive list of advantages, including the ability to remotely monitor and manage multiple devices across a network from a single interface, even in virtualized environments. The software also enables users to suspend non-critical virtual machines, consolidate critical virtual machines, shut down unused servers to extend battery runtime, or initiate a virtual machine to move or shut down in the event of an extended outage.

"Other manufacturers may have some equivalent competing power backup gear, but from a user perspective, their tiein for management is not as broad as what Eaton does," O'Brien emphasizes, pointing out that many of its machines run VMware[®]. "There are a lot of cool features that no one else offers, such as IPM's ability to turn off servers through VMware." "There really isn't any competition for IPM" Beeler adds. "I haven't seen anything even remotely comparable. Eaton clearly wants to be more than just a power company," he continues. "When it comes to the data center, their investment in software has made that clear."

Recently, StorageReview was even able to provide some much-needed assistance to the local utility. When a section of the grid was experiencing power spikes, the company's BladeUPS tracked the voltage irregularities.

"We were the only customer in the area that actually noticed the problem and had that level of monitoring capability," Beeler says. "We turned over our logs to the power company, which gave them a good record of what had happened in order to research the problem on their side. Without the UPS, we never would have known that was occurring."

Results

With the comprehensive Eaton solution safeguarding its lab, StorageReview can focus on testing and reviewing equipment, without ever worrying about downtime or damage within the lab environment. The company is now able to:

- Ensure continuous, clean power to equipment at all times
- Easily expand power capacity and/or runtime requirements with the scalability of the BladeUPS
- Manage and monitor its entire solution with IPM
- Safely and seamlessly distribute, manage and monitor power with ePDU G3 units

For more on Eaton's integrated solutions, visit: **Eaton.com/powerquality**

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