Success Story:
Virtualization Advisors

Market Served
IT

Eaton provides full solution for firm to bring data center on site

Location:
Tampa, Fla.

Segment:
Virtualization

Problem:
Skyrocketing colocation charges prompted the organization to bring its data center on premises, but to ensure continuous uptime, a complete power protection solution was required.

Solution:
Eaton 9PXM UPS, Eaton RS Enclosure, Eaton Managed Rack PDU, Eaton Intelligent Power Manager (IPM), Gigabit Network Card, Eaton Bypass Power Module (BPM), Eaton Environmental Monitoring Probe (EMP) Gen 2

Results:
Since deploying a comprehensive Eaton solution, Virtualization Advisors has enjoyed 100% uptime at its on-site data center.

"Eaton was able to bring a total solution to the table that covered all of the issues, and we were able to run it from an IT-centric model."

Stephen Ames, owner and CEO

Background

Virtualization Advisors is a leading provider of cloud computing for Florida businesses and state/local government agencies, specializing in network, server and storage virtualization, cloud disaster recovery and cloud IP telephony technology. Offering businesses an easy and affordable way to use virtualization, the company pairs technology with the consultation services and 24/7 support that customers need to effectively implement the solutions.

Challenge

Like many organizations, Virtualization Advisors took advantage of the benefits afforded by early cloud and colocation adoption, including cost-effectiveness. Yet earlier this year, as the company considered moving all of its computing to its existing colocation provider, that financial appeal had dissipated significantly. "In the beginning, the journey to the cloud started with a very affordable account," notes Stephen Ames, owner and CEO of Virtualization Advisors. "But as time has gone on, the charges have been piling on and the cloud hosting bill has increased and increased."

After discovering that his colocation costs would be triple the initial sum, Ames determined that he had three options: request a discount from his existing colocation provider, shop the competition or establish the company's data center onsite at his commercial office location. After completing a financial analysis of the alternatives, a clear winner was revealed — by bringing the data center onto the premises, Virtualization Advisors would experience a near-immediate payback in just 6 months. "It was a no-brainer," Ames emphasizes.

Acknowledging that the exceptional return-on-investment (ROI) was underscored by a couple of unique circumstances, Ames explains that his company's office was previously occupied by a sizable computer room, so the location included both a large power circuit and dedicated air conditioning, neither of which is typical in a commercial office space. "Those were gifts," he says.

Once he decided to complete the data center buildout, Ames then had to consider his power protection goals and determine the optimal uninterruptible power system (UPS). Residing in the lightning capital of the United States, unparalleled reliability was paramount. Beyond that, Virtualization Advisors required a solution that could provide ample battery runtime to safely shut down systems in the event of a power outage, the ability to manage the system remotely, and the ability to monitor environmental conditions within the data center room.

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Solution

As a certified-level Eaton® PowerAdvantage® partner that has been reselling the Eaton brand for more than five years, Virtualization Advisors knew exactly where to turn to find the optimal solution. However, before honing in on the best model, Ames analyzed both plug-and-play and three-phase hardwired UPSs. "Because we had a big power circuit available, a hardwired UPS was an option, but we also considered outlet-based UPSs," he explains. "The best choice will depend on a company's physical infrastructure, coupled with their power and runtime requirements."

After sizing different Eaton units and considering battery capacity options, Ames ultimately selected the Eaton 9PXM, a scalable, modular UPS that combines the highest levels of reliability and the lowest total cost of ownership. Enabling users to easily boost capacity, redundancy or runtimes, the unit's plug-and-play power and battery modules are lightweight and user-replaceable. "We really liked that the 9PXM had flexible growth strategies," Ames confirms.

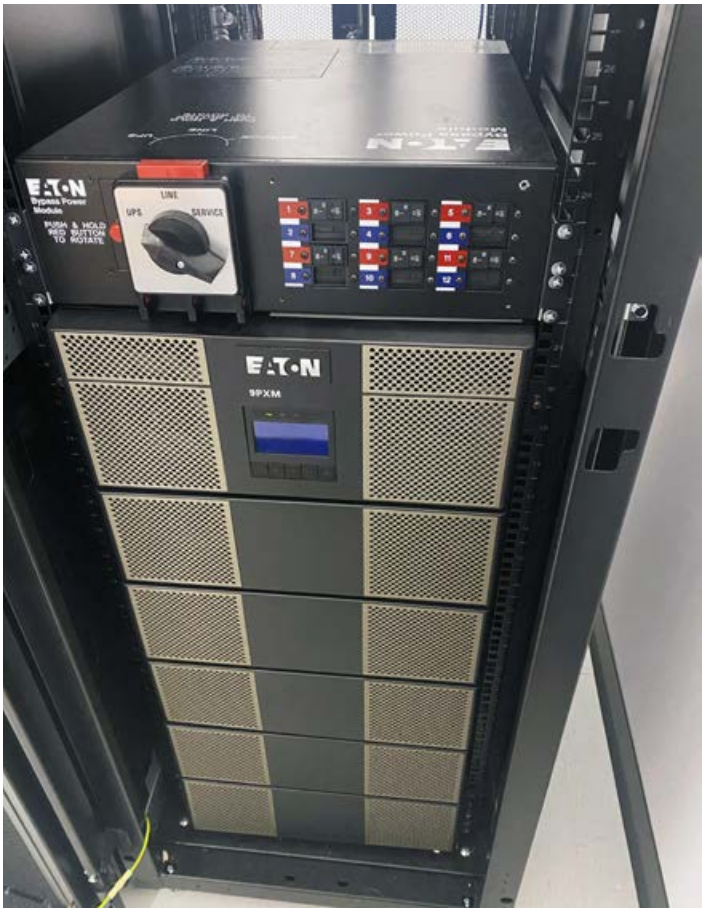
Available in up to 20 kVA N+1 capacity, the unit's small footprint and easy rack conversion make it an ideal solution for an array of data center, mission-critical and retail applications. Meanwhile, the design offers harmonious compatibility with four-post or high-density racks, PDUs and network gear for seamless integration into existing IT infrastructure. Having deployed a 12 kVA unit within a 12-slot Eaton RS Enclosure, Ames later bolstered the solution with an additional module to achieve N-1 redundancy, as well as filled the remaining slots with extended battery modules (EBMs) to gain 88 minutes of backup time. "We wanted to be able to survive the loss of one power module, as well as extend runtime if an outage occurred during off-hours," he explains. "I'm going for 24-hour-a-day uptime, so even if I'm not on site, I wanted enough runtime to be able to either power shed or shut down gracefully if needed."

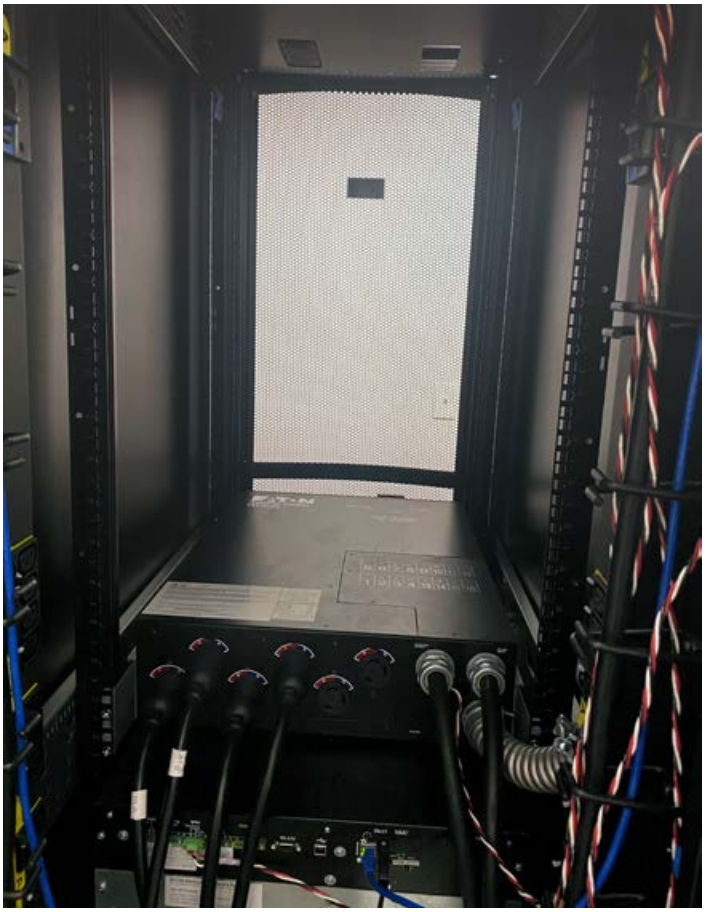
Ames has been especially impressed with the 9PXM's ease of use, including the ability to easily slide in modules after the unit was initially wired by an electrician. "It's as close to a rackmount UPS as we can get in a bigger system," he says. "That was very attractive."

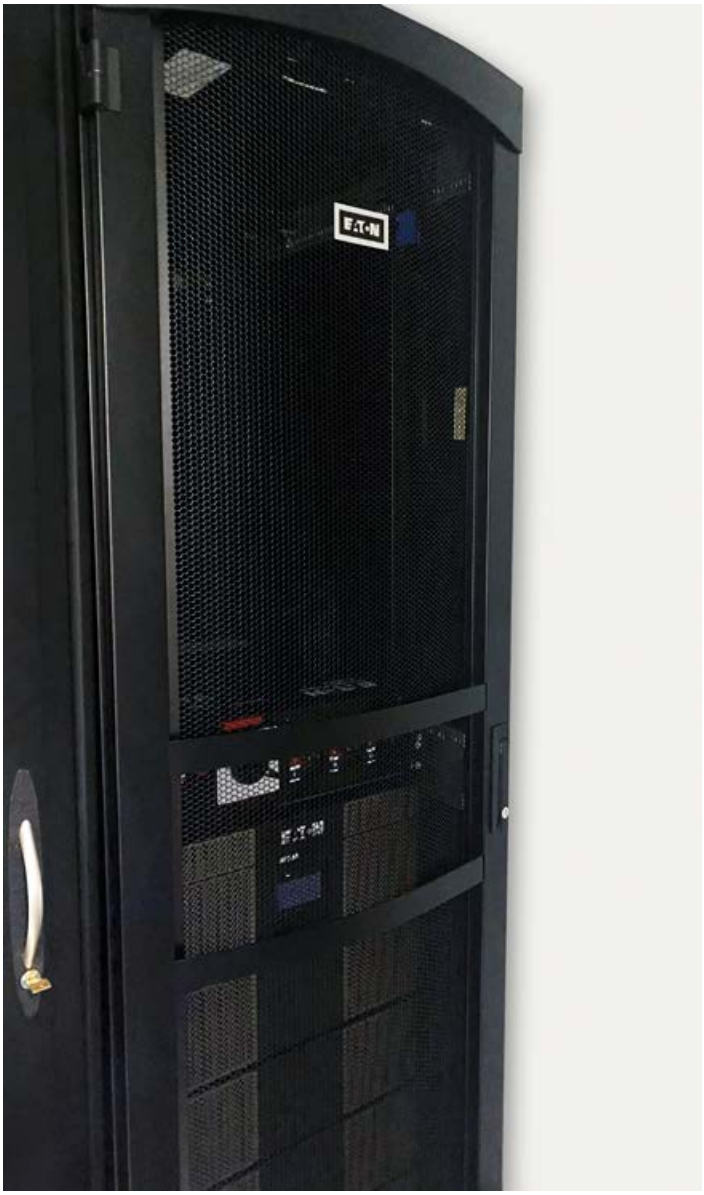
To further enhance reliability, Ames added an Eaton Bypass Power Module (BPM) to the 9PXM. "Now we can gracefully switch from utility to battery to bypass without having to shut down any equipment," he explains. Meanwhile, Eaton's Intelligent Power Manager (IPM) provides the tools the company needs to monitor and manage power devices in both physical and virtual environments. The firm also invested in the Eaton Gigabit Network Card, which not only improves business continuity by providing warnings of pending issues and helping to perform orderly shutdown of equipment, but also delivers critical cybersecurity measures. "My business is very focused on IT security so the fact that this card meets all those standards is really big," Ames acknowledges. "Just think about what a hacker can do if they're able to shut down a UPS."

Virtualization Advisors also deployed the Eaton Environmental Monitoring Probe (EMP) Gen 2, which enables users to collect temperature and humidity readings in rack enclosures and monitor environmental data remotely. Compatible with UPSs and PDUs, the EMP Gen 2 features a translucent case and integrated LED to positively identify the status of each sensor at a glance. Each EMP provides one temperature, one humidity and two dry-contact status data points, which Ames said is especially valuable. Noting that a technician wired the sensors into the air conditioning system, "we now know if the A/C cuts off and we can take that into account, since having no A/C in the room can certainly damage the equipment," he says. "We also added a sensor to the A/C drip pan so if water accumulates, we'll know that, as well. Eaton was able to bring a total solution to the table that covered all of the issues and we were able to run it from an IT-centric model."

Virtualization Advisors rounded off its comprehensive power protection solution with Eaton Managed Rack PDUs, which enable monitoring and control of critical factors such as voltage, current and power factor while providing remote on/off outlet switching to allow users to reboot connected equipment.







For Ames, the solution represented the ideal remedy to skyrocketing colocation costs. "I was faced with a real business problem," he says of the decision to bring his data center on premises. "The ROI got me to consider it, and then a couple of lucky cards pushed me down the road." At a time when the majority of organizations are reevaluating costs and budgets, Ames believes many CFOs are likely questioning the monthly amount being spent on their cloud or colocation services. "I imagine there are many who are saying, 'wow, that's a lot of money, and we could probably do it on premises for a lot less,'" he points out.

At the same time, he emphasizes that one solution isn't necessarily better than the other; rather, the decision should be based on a company's individual strategic alternatives and costs. "Some business models belong purely in the cloud, while some belong purely on premises," Ames acknowledges. "My decision had more to do with how I analyzed the resources I had available, not the fact that one is fundamentally better than the other."

Results

With the Eaton solution in place, Virtualization Advisors is now able to:

- Ensure high availability and continuous uptime to its on-premises data center
- Easily add power, redundancy or runtime with the scalability of the 9PXM
- Safely shut down systems remotely if an outage occurs off-hours using IPM
- Improve business continuity and safeguard against cyber crime with the Gigabit Network Card
- Stay apprised of environmental conditions in the rack with the EMP Gen 2

To learn more, visit
Eaton.com/9PXM

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