The units' efficiency definitely played a role in our selecting the 9390 … ESS will pay for itself within the year.

Tim Cooper, data center facilities manager

Travelport operations fly high with Eaton 9390 units

Location:
Atlanta, Ga.

Segment:
Travel

Problem:
The busy company needed a UPS with hearty capacity, redundancy and efficiency to ensure travel operations remain up and running around the clock.

Solution:
Eaton® 9390, ESS, Connectivity, Service, eNotify

Results:
Sixteen Eaton 9390 units responded to the call, delivering the high availability and uptime Travelport requires.

Background

Travelport is a global, broad-based business services provider that serves companies in every segment of the travel industry. As one of the world's largest travel content aggregators and distributors, and a leading provider of critical transaction processing solutions, Travelport powers the travel industry on a global scale by connecting buyers and sellers through agency, online and corporate travel channels.

Predominantly a global distribution system (GDS) business, Travelport operates in approximately 170 countries and includes the internationally recognized Worldspan™ and Galileo™ GDS platforms. Travelport also owns approximately 48 percent of leading online travel company

Orbitz® Worldwide, and is a joint venture partner in eNett™, a leading provider of innovative and integrated payment solutions tailored to meet the unique needs of the travel industry. The privately owned company with approximately 3,500 employees worldwide celebrated its 40th anniversary in 2011.

Challenge

With hundreds of servers, mainframe computers and an extensive range of complementary IT gear, Travelport's main data center is responsible for completing thousands of transactions per second. Considering the industry demand, the company's requirement for high availability cannot be underscored.

"Airline reservations systems and travel agencies use our systems to search for the best flights and the best rates," explains Tim Cooper, the company's data center facilities manager. "All transactions are completed with our servers and computer-related equipment. Our customers depend on us for daily operations and fulfillment, all around the world, every minute of every day. System reliability and uptime is paramount."

To insure against any potential disasters and provide additional capacity for expansion and growth, in 2011 Travelport opted to bolster its power protection solution after recognizing that its existing uninterruptible power system (UPS) would not be able to fully support the company's ongoing power needs.

But Travelport could not settle for just any UPS. In fact, in addition to capacity, the firm had a long list of prerequisites it required in a new solution, including redundancy, modularity, footprint, efficiency, scalability and service. Thankfully, one UPS was designed to answer the call: the Eaton 9390.

Solution

Travelport initially purchased eight 120 kVA 9390 units in May. Using Eaton's patented Powerware® Hot Sync technology, the company opted to deploy the UPSs redundantly in pairs, facilitating optimum reliability and flexibility. Unlike other paralleling technologies, Hot Sync eliminates a system-level single point of failure by ensuring that each module operates independently. Systems may be paralleled for either capacity or redundancy, with UPSs sharing the load equally and eliminating the transfer time when one load shifts to another.

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"This was such a great economical solution to provide the additional capacity that we needed," Cooper raves. "We really got a lot for our money."

So much so that, four months later, the firm added eight more 9390s. Explaining that Travelport incorporates new technology on a regular basis, and often juggles multiple projects simultaneously, Cooper says the need for UPS capacity is ongoing. "When we migrate from old to new servers, there is a cross-over point where we have to keep them both alive," he reveals. "This can present a capacity problem, which the new UPSs address."

In addition to significantly bolstering Travelport's capacity while meeting the company's redundancy needs, the 9390 units deliver clean, continuous power to all connected equipment with their double-conversion design.

Even more, with an efficiency rating of 94 percent and an output power factor of .90, the 9390 lowers total cost of ownership by protecting more equipment and reducing the cost of power to support protected loads. It also produces less heat, which in turn slashes facility cooling costs.

To achieve even greater efficiency, Travelport implemented Eaton Energy Saver System (ESS), which enables the 9390 to attain an industry-leading efficiency level of 99 percent, making it the only technology on the market capable of yielding such results. Using ESS, the UPS intelligently adapts to utility power conditions while supplying clean power to the connected equipment. Even more, because UPSs using ESS maintain 99 percent efficiency even when lightly loaded, the technology can deliver gains of up to 15

percentage points in efficiency over traditional models in the typical operating range.

"The units' efficiency definitely played a role in our selecting the 9390," Cooper notes, adding that the UPSs run approximately 11 to 17 percent more efficiently with the addition of ESS. "ESS will pay for itself within the year," he points out.

Travelport was also impressed with the modularity of the 9390. "That was one of the biggest features we wanted," Cooper points out. Thanks to the UPS's scalable architecture — which allows up to six modules to be paralleled for additional capacity or redundancy — the units are capable of taking the organization down any road it might travel. Even better, expansion requires a simple phone call to an Eaton customer service engineer (CSE), with the ability for the internal upgrade to be performed on site without costly additional cabinetry or connections.

And although the 9390 is big on protection and capacity, it boasts the smallest footprint of any UPS in its class — a factor that was very important to Travelport. "That was one of the determining factors, since data center floor space is very expensive," Cooper acknowledges.

The slight footprint also reduces installation time and costs, thanks to the flexibility to install against walls, using top- or bottom-entry cabling. Furthermore, convenient front-panel access for all services and operation increases serviceability and reduces repair time. "We really like the design," Cooper says of the UPSs, which Travelport installed themselves. "It went really smoothly," he adds, "especially considering how much equipment we installed."

Sometimes it's the small details that matter most, and the 9390 is no exception. Cooper emphasizes the value of the unit's front panel display. "You just press a button and get the power consumption and everything you need right there," he says. "It's very convenient."

Yet another selling point for Cooper was the ability to receive instant notifications and updates by adding Eaton's ConnectUPS-X/SNMP device, a network card that enable remote monitoring and provide HTTP, SNMP, SMTP, WAP, Telnet, SSL, SSH compatibility and advanced RS232 communications.

"If there is any power issue, the UPS will notify our staff 24/7," Cooper explains. "It really works out well."

As do the 9390 units, which were tested recently when Travelport's data center was impacted by abnormal incoming power from the utility.

"We received the input abnormal alarm from the WEB/SNMP card on the 9390 unit and the system responded as designed," Cooper reports. "Apparently there was a problem with substation activity that caused the input voltage to go higher.

"We've had no trouble out of these units and the Eaton service department and technicians have been great," he adds.

Currently in the process of completing a service agreement for the UPSs, Travelport recognizes the importance of regularly scheduled preventive maintenance in order to ensure ongoing uptime and availability. "It's just a smart thing to do," says Cooper. "We like knowing that trained technicians are looking at these UPSs every six months."

Results

Thanks to the deployment of the 9390 UPSs, there are no boundaries when it comes to Travelport's continued business operations. With the 16 units in place, the company is able to:

- Maintain continuous uptime within its data center
- Gain the highest level of reliability by paralleling the units for redundancy
- Achieve up to 99% efficiency and lower utility costs with Eaton ESS
- Easily expand the scalable solution if power requirements increase in the future
- Preserve valuable space with the 9390's small footprint
- Enjoy low total cost of ownership and exceptional value

Eaton 9390

Learn how the Eaton 9390 can help you at Eaton.com/9390.

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