

Defense company arms network with 9390 UPS

Product:

Eaton® 9390 UPS

Location:

Dallas, Texas

Market Served:

Defense

“The UPS is basically our insurance plan ... It’s a safety net that you know is there to protect your investment.”

- Brad Volini, senior business applications/systems analyst

Background

As a prime contractor in Command, Control and Communications, Intelligence, Surveillance and Reconnaissance (C³ISR); government services; aircraft modernization and maintenance; and homeland defense products and services, L-3 Communications has quickly grown into the sixth largest defense company in the United States.

Possessing the broadest base of specialized products in the industry, the firm is a top merchant supplier of guidance and navigation products and systems, sensors, scanners, fuses, data links, propulsion systems, avionics, electro optics, satellite communications, electrical power equipment, encryption products, signal intelligence, antennas and microwave products. Furthermore, the company’s infrared products support reconnaissance and surveillance efforts executed by police officers, military troops, SWAT teams and others performing critical missions.

Challenge

Considering its industry background, it’s not surprising that L-3 uniquely understands the value and necessity of a proper defense—not only in military and law enforcement strategies, but for critical network environments, as well. Manufacturing products known for performing when the stakes are high, the company needs to achieve that same level of confidence in its power protection solution. The search for a top-ranking uninterruptible power system (UPS) was initiated in 2004, when L-3 was constructing a brand new computer room.

“One of the most important things for us was getting the correct amount of capacity to secure what we had in the room,” reveals Brad Volini, senior business applications/systems analyst for L-3. “The UPS is responsible for protecting pretty much our entire network—everything from our domain controller, to exchange servers, to all of our applications and file servers. It’s very critical, and if it went out or we didn’t have it, it wouldn’t be good.”

The firm needed a solution large enough to protect its 35 servers, as well as a variety of other networking gear. In addition to a robust and highly reliable unit, L-3 also sought a unit capable of easily scaling as its equipment requirements expanded. “We wanted a solution that would fit our current power needs and also be able to accommodate us if we were to grow,” notes Volini.

Solution

After taking into account its power requirements and forecasting for future growth, L-3 honed in on the Eaton® 9390 40 kVA UPS. Combining technical innovation with a rich feature set, the UPS delivers an industry-leading combination of power performance, battery management, scalable architecture, flexibility, power density, and warranty and service. Most importantly, its double-conversion, online design offers the highest level of protection available, safeguarding L-3’s equipment against the most common power problems, including outages, sags, surges, spikes, brownouts, line noise, frequency variation, switching transients and harmonic distortion.



Powering Business Worldwide

"The purpose of the UPS is to keep things up for a period of time if power goes out," Volini shares. "It buys us time to be able to shut down everything properly. If we didn't have it and the power was to shut off, all of our servers would just do a hard shutdown, which runs the risk of applications and programs becoming corrupt. In a worst case scenario," he points out, "we could lose the apps and programs that we use daily, which could cost us millions of dollars."

The UPS's exceptional battery management system is another key feature that enhances reliability. The advanced technology extends battery life and optimizes recharge time, while the unit's integrated battery management system tests and monitors battery health.

In addition to high availability, the 9390 delivers the scalability that L-3 was seeking. The 40 kVA unit is internally scalable up to 80 kVA, with the upgrade easily performed on site by an Eaton service technician without requiring costly additional cabinetry and connections.

A high efficiency rating of 94 percent and output power factor of .90 contributes to the 9390's ability to lower total cost of ownership by reducing the cost of power to support protected loads. Due to its high efficiency rating, the 9390 also produces less heat, which in turn cuts facility cooling costs.

The unit also offers the ability to parallel for redundancy using patented Hot Sync technology. This capability allows up to six UPS modules to operate in parallel without the need for inter-module connectivity, maximizing availability and eliminating the system-level, single-point-of-failure inherent in traditional parallel configurations. Each UPS module is configured with its own backup battery system, as opposed to standard systems that generally incorporate a common battery system.

Another benefit to the 9390 is superior warranty coverage, which includes a one-year factory warranty, start-up service, a UPS performance check, one year of battery replacement labor coverage, and one year of web remote monitoring of both the UPS and batteries.

Volini is especially impressed with the unit's eNotify service, which offers real-time monitoring of more than 100 UPS and battery alarms. "It provides very good information as to the status of the UPS," he says.

In addition, the systems analyst receives monthly reports that detail information on the 9390, including voltages, loads, temperature and humidity. The report also summarizes the top 10 performance and environmental parameters, battery events, availability percentage, and comparative status against recommended specification. Even more, if any type of power anomaly is detected, Volini immediately receives an email. "The eNotify notification is very important," he says.

The service also features remote monitoring of both the UPS and batteries at all times by Eaton service technicians. In addition to enabling many issues to be resolved remotely – often before a customer even knows a potential problem exists – eNotify will automatically dispatch a technician to the site, if needed. For L-3, this unparalleled level of attentiveness affords ultimate peace of mind.

Implementation

Because of its small footprint and flexible installation options—including against walls, using top- or bottom-entry cabling—the 9390 reduces installation time and costs. Furthermore, convenient front-panel access increases the unit's serviceability, while also reducing repair time.

"Everything went well," Volini confirms of the unit's deployment in L-3's computer room. "We spoke with the engineers regarding our power needs, had an electrician come out and showed him where we wanted the UPS, and then the contractors building the room supplied the power to where Eaton recommended. They installed it and there haven't been any issues."

Volini attributes this, in part, to preventive maintenance service plan executed by Eaton. "They come in and test everything and do a really good job," he says, noting that he is always provided with a detailed report on following each service call.

For L-3, foregoing regular preventive maintenance would be like failing to load a weapon with ammunition. "If we don't have it, then we may not be aware of a battery that is about to die, and we could find ourselves in a situation where there's a power outage and the UPS isn't able to hold power long enough," Volini points out.

Results

What Volini values most about the 9390 is the fact that he doesn't have to think twice about the solution. "The UPS is basically our insurance plan," he says. "It's a safety net that you know is there to protect your investment."

With the 9390 casting its safety net around L-3's network equipment, the company is able to:

- Ensure the continuous availability of its network operations
- Easily grow its power protection solution as needed
- Remain aware of the constant health of its UPS with eNotify monitoring service
- Preserve its ongoing investment with an Eaton service plan



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