



## Power protection that really pays

**Product:**

Eaton® 9390 UPS

**Location:**

Arlington Heights, Ill.

**Market Served:**

Payroll Services

*"There is nothing more important to our business than what this UPS protects."*

- Brian Boos, IT Manager

**Background**

Since 1997, Paylocity has been providing innovative payroll services and human resource software solutions to employees and businesses across the U.S. As the country's leading independent provider of online payroll and HR solutions, Paylocity has twice been named "Service Bureau of the Year" by the Independent Payroll Providers Association (IPPA). In addition, the company made *Inc. Magazine's* list of the nation's fastest-growing, privately held companies on four separate occasions. More importantly, Paylocity has maintained a 97 percent client retention rate for 10 years running—a testament to both its commitment to clients and its innovative solutions.

**Challenge**

Two years ago, when Paylocity transferred its corporate headquarters to a new facility, the company recognized the benefits that could be achieved by deploying a centralized uninterruptible power system (UPS). Seeking a solution capable of safeguarding six racks of server equipment within the production data center, three racks in the company's QA room, and various network and phone equipment for the facility, Paylocity required a robust UPS that could provide continuous uptime for its critical services.

In addition to hosting web-based payroll services, the company requires high availability for its human resources and timekeeping applications, while supporting a large call center staffed with more than 100 customer service and implementation representatives to assist clients.

"There is nothing more important to our business than what the UPS protects," emphasizes Brian Boos, Paylocity's IT manager.

The company's previous power protection solution posed a number of challenges. Primarily consisting of several smaller rack-mount UPSs attached to servers—with network and phone gear plugged in to stand-alone units—the scheme left a lot to be desired.

"The UPSs wasted rack space and weren't centralized, so we had to balance usage manually," explains Boos, adding that the solution also didn't provide enough capacity and wasn't very efficient. "The goal of those UPSs was mainly to provide emergency power if the mains went down, not to clean or condition it."

For its new data center, Paylocity demanded much more. "We were looking for a high-capacity, high-efficiency, three-phase UPS that did double-conversion, and that played well with a diesel generator," Boos summarizes.

**Solution**

The payroll service company really hit pay dirt when it selected a 120 kVA Eaton 9390 UPS to support its data center.

"We did quite a bit of research on various makes and models, but eventually chose the Eaton UPS because of its overall specifications and good reviews," shares Boos.



Powering Business Worldwide

Indeed, the 9390 delivers an impressive combination of power performance, reliability and sustainability. To begin with, its double-conversion topology offers the highest level of protection available, isolating output power from all power anomalies to deliver completely conditioned, perfect sine wave output.

Even more, the unit's transformerless design and sophisticated sensing and control circuitry produce an efficiency rating of up to 99 percent with Eaton's Energy Saver Mode—a dramatic improvement over most competitive UPSs, especially when operating at higher capacity loads. Because the 9390 runs so efficiently, it produces less heat, which in turn lowers facility cooling costs. This is especially important considering the fact that even relatively small improvements in efficiency can yield dramatic savings. For example, an 80 kVA 9390 UPS operating at 94 percent efficiency will save more than \$5,500 in energy costs per year, over the same size unit that operates at 90 percent efficiency.

"Eaton was the highest-efficiency UPS available," Boos acknowledges. "The financial and environmental benefits of this were very important to us."

The 9390 also boasts a power factor of .90, which protects more equipment while further lowering total cost of ownership. In addition, the UPS's low total input harmonic current distortion (THD) of less than 4.5 percent enhances compatibility with upstream power systems—most notably generators—while the unit's input power factor of 0.99 minimizes auxiliary generator sizing requirements. This was advantageous to Paylocity, as its facility relies on a backup generator to help ensure continuous uptime during an extended power outage.

Furthermore, the 9390 affords the ability to bolster runtime as desired, with Paylocity's backup varying between 60 and 90 minutes, depending on the load.

"Usually we only need a fraction of that before the generator kicks in," explains Boos, "but if it didn't, the UPS would give us a cushion to identify and fix any problems."

With the ability to support loads of up to 160 kVA, the 9390 provides Paylocity with yet another cushion: the option to easily expand the power protection solution if its capacity needs grow in the future. The unit's scalable architecture enables up to six 9390 modules to be paralleled for additional capacity or redundancy, without having to utilize a central bypass cabinet. In all paralleling configurations, each module operates independently, with the ability to deliver N+1, N+2 or greater redundancy.

"When we spec'd out our new data center, we planned everything for full capacity," Boos explains. "We'll only outgrow the UPS if we outgrow the building."

### Implementation

Another benefit of the 9390 is a reduction in installation time and costs, compliments of the unit's small footprint and flexibility to install against walls, using top- or bottom-entry cabling.

Furthermore, convenient front-panel access for all services and operation increases the 9390's serviceability while reducing repair time.

For enhanced manageability, Paylocity is also using the ConnectUPS Web/SNMP card, which enables convenient monitoring capabilities, while simultaneously providing graceful shutdown for multiple systems over the network. "Email alerts notify us of any line anomalies or changes in the unit's status, but more importantly, when the mains fail and when our generator kicks in," says Boos.

Since deploying the unit, Paylocity has experienced three power interruptions ranging from three hours to three days. "Each time, the UPS kept everything up and running until our generator kicked in," Boos reports. "We had no perceptible downtime."

### Result

There has clearly been a big payoff since Paylocity's deployment of the 9390 UPS.

"There's tremendous peace of mind knowing that we don't have to worry about power issues," Boos acknowledges. "Our execs and our auditors recognize this as part of our data center's overall resilience. It's also a big selling point for potential clients when we give them a tour of the data center."

Furthermore, since moving to its new data center, Paylocity has experienced a dramatic reduction in hardware failures. "Part of that we attribute to better cooling," says Boos, "but part of it is definitely from cleaner power."

Since installing the 9390, Paylocity is now able to:

- Provide 24x7 uninterrupted, clean power to its entire data center
- Ensure continuous uptime and availability for its critical customer services
- Easily manage a single, centralized UPS
- Reduce energy and cooling costs through best-in-class efficiency performance
- Deliver sufficient ride-through until the generator can get up and running



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