



Eaton 9390 is the shining star for cable company

Location:

Rainesville, Ala.

Segment:

TV/Broadcasting/Communication

Problem:

The utility company required a large three-phase UPS to protect its wide range of equipment, but one that would not occupy a lot of space.

Solution:

Eaton® 9390, eNotify, Service

Results:

The Eaton 9390 delivers high reliability and robust power protection in a surprisingly small package.

“This UPS has worked flawlessly, it has been rock solid. It’s never missed a beat on anything. Frankly, I wish everything we had worked like this. It’s truly performed beyond our expectations.”

Jerry Smith, senior network engineer

Background

As Alabama’s largest member-owned operating telephone cooperative, Farmers Telecommunications Cooperative (FTC) got its start in 1952 when a handful of area residents joined together to organize and build what was then known as Farmers Telephone Cooperative. Prior to that, none of the state’s large, investor-owned telephone companies would serve the rural areas, claiming that the cost was too high and the return too low.

In February 2005, the company changed its name to better represent its standing as not only a reliable telephone cooperative, but also a source for local telecommunication needs. Today the entity serves close to 17,000 subscribers in seven exchanges across DeKalb and Jackson counties. And far from the simple dial tone that those first members treasured a half-century ago, FTC now offers an impressive array of advanced telecom services to rural citizens.

Challenge

Although FTC takes pride in offering customers a comprehensive lineup of programming options, the company strives to steer clear of all drama when it comes to maintaining continuous uptime at its facility.

“People depend on the Internet and aren’t happy if it goes down,” acknowledges Jerry Smith, FTC’s senior network engineer. “But they are even worse when it’s their TV, especially if it’s something like the Alabama-LSU football game. You lose something like that and you may not have half your customers the next day.”

Approximately five years ago, FTC set out to eliminate that possibility — as well as any other potentially devastating power outcome — by installing a high-quality uninterruptible power system (UPS). The company needed a three-phase unit capable of protecting its entire lineup of network gear, including servers, routers, switches and the IP TV head end, which aggregates all channels onto the cable network.



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In addition to exceptional reliability, FTC sought a UPS with a footprint small enough to accommodate its equipment room, as well as a solution that the company wouldn't outgrow if its power requirements were to expand in the future.

Solution

The starring role in the cable provider's power protection solution was awarded to the Eaton 9390 three-phase UPS, which combines technical innovation with an impressive set of features. The double-conversion design offers the highest level of protection available, perfect for safeguarding FTC's critical equipment against the most common power problems, including outages, sags, surges, spikes, brownouts, line noise, frequency variation, switching transients and harmonic distortion.

"This UPS has worked flawlessly, it has been rock solid," Smith reveals. "It's never missed a beat on anything. Frankly, I wish everything we had worked like this. It's truly performed beyond our expectations."

One of the UPS's most beneficial features is its scalable architecture, which enables customers to meet current and future load requirements. Having purchased a 50 kVA unit, FTC is now preparing to expand to 80 kVA — an upgrade that can be completed with a simple software addition.

"I don't have to do anything, and all of a sudden it's an 80 kVA," Smith enthuses. "That is worth a lot. If we would have had to take that machine down in order to perform an upgrade, it would have been horrible. It's great to have something that you can upgrade so easily."

FTC is also in the process of adding a supplemental battery cabinet to the unit, which will not only afford longer runtime but also redundancy. "Both cabinets feed the unit if we need the runtime," Smith explains, "but because we will have two cabinets, we can shut down one and do maintenance on the other, since we'll still be protected by the first one."

Another advantage for FTC is the 9390's high efficiency rating of 94 percent and output power factor of .90, which 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 reduces facility cooling costs.

"We were certainly pleased with that — and surprised when I saw the numbers on efficiency," Smith confirms.

Adding to the unit's appeal is a small footprint — a full 35 to 50 percent less than other manufacturers' models. Installed in FTC's equipment room, this advantage proved key for the company. "If it had been much larger at all we would have had to refocus and put it somewhere else," Smith acknowledges.

To help preserve the ongoing health of the 9390, every unit includes on-site startup service and training, a full year of 24x7 parts and labor, a service protection plan and Eaton's eNotify Remote Monitoring service.

Providing real-time monitoring of more than 100 UPS and battery alarms, eNotify delivers monthly reports that detail the status of the 9390, including information on 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, Smith is notified immediately.

As part of the eNotify service, Eaton technicians also remotely monitor both the UPS and batteries at all times, which enables many issues to be resolved remotely — often before a customer even knows a potential problem exists. If needed, the service automatically dispatches a technician to the site, providing FTC with additional peace of mind.

"eNotify has been very helpful," Smith says, recalling that there have been a few times when a minor incident occurred and he was not in the office. "I was out of pocket ... but by the time someone at the office tracked me down, someone from Eaton had already called and informed me," he reveals.

Furthermore, using Eaton's Web/SNMP connectivity network card, FTC was able to tie the 9390 directly into its own monitoring system. "So we know everything that is happening in real-time," Smith reveals.

In addition to the reliability of the UPS, FTC has been impressed with Eaton's level of service from day one. "When we were ready to order the unit, instead of just doing it over the phone, a sales engineer from Eaton actually came to our office and sat down with us to make sure we were getting everything we needed," Smith recalls.

And, since installing the 9390 five years ago, FTC hasn't had to do anything but replace a single battery. "It has been so flawless in its operation," Smith reports. "It's a Cadillac."

The lack of trouble can be attributed, in part, to the unit's service plan. Eaton customer service engineer Roger Ballard inspects the 9390 twice a year, with a separate technician making visits to check out the batteries. "It's great when you have Roger looking to make sure it's doing what it's supposed to do," Smith acknowledges.

And there have been numerous opportunities for the 9390 to perform. "We surely have been beat up by Mother Nature over the past few years," Smith acknowledges, citing several tornadoes and other severe weather events that wreaked havoc on the utility power supply. "We never missed a lick and part of that was because of the UPS."

Results

"I can recommend this unit happily with no reservations whatsoever," Smith sums up. "And I'm not talking about just the equipment but also the technicians who come out here. They make me feel like they are really trying to take care of me."

Indeed, with the 9390 in place, FTC is now able to:

- Ensure continuous uptime to its critical equipment so patrons don't lose cable or Internet connections
- Easily expand its power protection solution and runtime as the company's needs grow and change
- Situate the 9390 in its equipment room, thanks to the unit's small footprint
- Stay apprised of all power incidents with eNotify Remote Monitoring service
- Maintain the ongoing health of the unit with an Eaton service plan



Eaton 9390

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Printed in USA
COR204CSS
March 2012

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