A Customer Success
from the Experts in
Business-Critical Continuity™

Time Warner Cable of New York City

Time Warner Cable Inc. is the second-largest cable operator in the United States and an industry leader in developing and launching innovative video, data and voice services. The company delivers services to customers through technologically advanced, well-clustered cable systems that pass approximately 26 million homes. The company offers high-speed data service, IP-based telephony service and a range of advanced digital video services. Time Warner Cable of New York City services the largest concentration of cable customers per square mile in the United States.

Background

With the introduction of high-speed Internet and VoIP phone service, the critical power infrastructure of Time Warner Cable of New York City was not adequately equipped to support the fast growth in services and customer expectations. Commercial space is at a premium in New York City. So as more IT systems were added to support new services, the company was forced to build on the aging power systems, which were not sufficiently able to support the high levels of availability the new services required. A power failure at any point along the power infrastructure can impact the entire operation—and have serious consequences for the business.

Case Summary

Location: New York City

Products/Services:

- Liebert NX UPS modules with paralleling cabinets

Critical Needs: Create a dynamic power architecture to meet power and high availability needs as the company's communications network and breadth of services continued to grow.

Results

- Designed and installed a dynamic power architecture that enabled the company to better plan for and meet growing power needs.
- Added level of redundancy to current power infrastructure to increase business-critical systems availability to 99.99999.
- Retrofitted aging infrastructure with state-of-the-art UPS units without any service interruptions.
- Eliminated single-point-of-failure areas in the company's power infrastructure.

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The Situation

When cable companies delivered only television services, the industry was willing to occasionally cope with relatively of downtime—most customers would take a temporary service interruption.

Sal Azzaro, director of facilities for Time Warner Cable of New York City will be the first to tell you that times have definitely changed.

"With the introduction of high-speed Internet and VoIP phone service, not only has our customer base increased, but the scope of services we offer those customers has also broadened," says Azzaro. "This has significantly increased the importance of service continuity. Our customers require continuous availability of our services."

Similar to many companies, Time Warner Cable's IT infrastructure has evolved into an interdependent business-critical network that includes data, engineering systems and servers. A power failure at any point along the network can impact the entire operation—and have serious consequences for the business.

Unfortunately, the company's critical power infrastructure was not adequately equipped to support the fast growth in services and customer expectations. "During the last couple of years, our power needs shot through the roof because of the advanced applications we needed to support," says Azzaro. "And, we were severely limited in the course of action we could take because of space and power issues in our facilities."

Time Warner Cable of New York City oversees 22 facilities in New York—18 "hubs" that serve as signal distribution points and four "head ends" where the signals are converted and processed for transmission to customers. Control for all 22 facilities is centralized in the company's Master Control Facility, also located in New York City. Commercial space is at a premium in New York City. So as more IT systems were added to support new services, the company was forced to build on the aging power systems, which were not sufficiently able to support the high levels of availability the new services required.

"The Liebert NX easily fit into our current infrastructure. We did not have to rearrange our facilities to accommodate the units. It allowed us to go back into the current, aging power structure and overbuild redundant UPS power in critical spots without having to rebuild the infrastructure that is supported by the existing UPS units, or experience any downtime."

Sal Azzaro, director of facilities,
Time Warner Cable of New York City

"We understood this was a short-term solution," says Azzaro. "In our industry, the pace of change is so fast it can be difficult to always stay ahead of the curve. Technology demands and customer expectations drive our business. Given our limited options, we had to make quick decisions that would ensure our customers could continue to enjoy our breadth of services."

"For me, the most important aspect of this project was the fact that Emerson Network Power was willing to sit down with us, talk through our situation, and give us exactly what we were asking. They were willing to be innovative based on customer needs. That was solid proof that they viewed us as a partner, and not just a customer."

Sal Azzaro, Time Warner Cable of New York City

Mary Kaye Hertz, Emerson Network Power service representative

The Solution

"We were hoping to find a solution that would allow us to retrofit our aging infrastructure without causing any downtime, while at the same time delivering an end product that was expandable and redundant," says Azzaro. "But we weren't sure that was possible."

This particular division of Time Warner Cable has had a long relationship with Emerson Network Power and Azzaro was familiar with its Liebert technology and comprehensive service business. He approached Mary Kaye Hertz, his Emerson Network Power service representative and a team of Emerson executives, including its president, with the challenge.

"After describing our unique situation, we were able to tell them what we thought we wanted to accomplish and how it needed to work in our system," says Azzaro. "They listened and came back with a reliable solution designed specifically to meet our needs and overcome our obstacles."

The solution featured eight, 30 kVA Liebert NX modules installed in the master control facility. The modules were configured in a dual-redundant configuration with four Liebert NX systems working in parallel on each bus.

"The configuration developed for Time Warner of New York was designed for both flexibility and high availability," says Peter Panfil, vice president of power engineering Liebert Solutions, Emerson Network Power. "It offers redundancy within each parallel system, within the two parallel systems and between the master control facility and the facilities it supports. At the same time, it provides a clear path for economically adding capacity in the future."

The Liebert NX is one of the most compact UPS systems in its size range. It features a 24-inch by 32.5-inch footprint including the back-up battery, and is utility and back-up generator friendly. Designed to meet the high availability power needs of a wide variety of applications, it delivers both reliability and a return on investment that is uncommon in the industry. The Liebert NX with paralleling cabinet gives customers increased flexibility in designing for adaptive redundancy and/or capacity in the power protection systems. It allows multiple Liebert NX systems to work together as a single system, enabling the Liebert NX to support a wide variety of configurations, including N + 1 and N + N.

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facilities to accommodate the units," says Azzaro. "It allowed us to go back into the current, aging power structure and overbuild redundant UPS power in critical spots without having to rebuild the infrastructure that is supported by the existing UPS units, or experience any downtime."

The Results

"I admit there was a high level of apprehension on my part because this was one of the early installations of the Liebert NX paralleling UPS system," says Azzaro. "I really wanted to make sure the units would work the way we thought they would."

The apprehension proved to be unwarranted. Liebert engineers conducted testing prior to installation and then oversaw the successful installation of the new systems and the extensive on-site load testing prior to load cut-over, which was all accomplished without any interruption in operations.

"One of the advantages of the Liebert NX system is that different size modules can be paralleled in the same system," says Panfil. "That provides a lot more flexibility for future growth compared to systems that lock you into one size building block."

Azzaro adds, "As we continue to add more services to our portfolio, we are quickly becoming an invaluable communications life-line to our customers. I'm confident that we now have a dynamic power infrastructure designed to easily expand as our business grows."

Even with the success of the installation and the performance of the equipment, Azzaro still finds himself focusing on just one part of the project.

"For me, the most important aspect of this project was the fact that Emerson Network Power was willing to sit down with us, talk through our situation, and give us exactly what we were asking. They were willing to be innovative based on customer needs. That was solid proof that they viewed us as a partner, and not just a customer."

For more information on Liebert technology, visit **www.Liebert.com.**