canara™

Canara 24/7 UPS and Battery Monitoring Helps to Power Cologix Data Center Profitability

cologix
where networks connect

COLOGIX, INC. COMPANY PROFILE

- Headquartered in Denver, Colorado
- Runs 20 prime interconnection points in North America
- Offers more than 350 network choices
- Provides network neutral interconnection and colocation services
- Serves 850 carrier, media, financial services and enterprise customers

CHALLENGES

- Ensure uptime and service reliability
- Extend battery life
- Reduce maintenance costs
- Monitor and manage all potential outage points continuously

SOLUTIONS

- Canara Battery Monitoring
- Canara UPS Monitoring
- Canara Cabinets
- Canara Monitoring Operations Center

DATA CENTER PROFITABILITY REQUIRES SOLID RELIABILITY

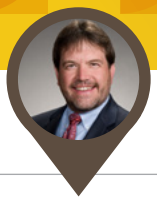
Data center providers build their businesses and reputations on delivering reliable, managed colocation hosting and services to customers. Service uptime is a top priority because outages cost, on average, more than US$500,000 each in lost business, according to a recent Ponemon Institute study.[1]

Failure of an uninterruptible power supply (UPS), including battery backup systems, is the number-one cause of data center outages. For this reason, industry common practice dictates that UPS batteries be replaced at 50 percent of their warranty cycles, whether they need replacement or not. For example, most data center operators routinely replace a valve-regulated lead acid (VRLA) battery with a five-year warranty at about two-and-a-half to three years—but such time-based anticipatory replacement is expensive. Manual, quarterly or semiannual battery and UPS preventative maintenance (PM) checks do not accurately represent the relative health of battery backup systems because periodic PM reviews represent a single snapshot in time without any basis to understand the relative state of the battery's health. Without continuous monitoring, batteries and UPS systems are notorious for failing immediately after manual testing.

The leadership at Cologix, a leading interconnection & colocation provider with 20 data centers in eight North American markets, wanted to implement a proactive battery and UPS monitoring system to ensure service reliability, reduce equipment-failure risk exposure and save on equipment maintenance costs. Matt Spencer, Chief Technology Officer at Cologix, set a target of reducing the company's battery and UPS exchange rate and extending

HIGHLIGHTS

+ Proactively help ensure service uptime with 24/7 battery and uninterruptible power supply (UPS) monitoring by the Canara Monitoring Operations Center
+ Substantially help reduce overall maintenance trips by over 50 percent thus far with continuous monitoring of individual UPS batteries and most uninterruptible power supplies that predictively pinpoint when and where repairs are needed
+ Securely extend UPS battery life with a goal of going from 3 years to 4+ years for a 5 year battery — with continuous monitoring in combination with predictive analytics



"That's the real value of this solution; it lets us find and correct a potential failure proactively instead of doing reactive root-cause analysis after a costly incident."

— MATT SPENCER, COLOGIX

the replacement intervals from two-and-a-half or three years to four to five years. The organization also wanted to monitor and manage all potential points of outage at all times to ensure the most reliable environment for their customers

Cologix chooses Canara proactive monitoring for resilience and value

Canara combines over 20 years of data for predictive analytics with patented technology that identifies and preempts potential problems. Impressed with the 20-year track record of 100 percent battery and UPS uptime for Canara-monitored sites, Cologix selected Canara for its technology, thought leadership, expertise and shared-cost model for battery install and replacement. "We were looking for the optimal value and found that with Canara" says Spencer. Implementing the Canara solution requires minimal in-house technical expertise and didn't cause any disruption to operations. "Deployment is easy, because the Canara solution is platform-independent and covers batteries and monitoring systems from multiple vendors," says Spencer. "Plus, installation can be done while systems are in operation here by following Canara's well-documented method of procedure. This is one of the advantages of working with a partner who understands the data-center criticality of UPS systems and batteries."

Cologix data centers include a diverse mix of critical power system equipment—uninterruptible power supplies, batteries and generators. Cologix installed both the Canara End-to-End UPS and Battery Monitoring System Cabinet and then retrofitted existing cabinets to protect preexisting equipment. "There's no difference in the way the monitoring and management system operates, whether it's using the Canara cabinet or a standard cabinet that's been retrofitted," explains Spencer. "This gives us the flexibility to choose the level of battery engineering appropriate for an application."

Cologix data center sites are now monitored around the clock by the Canara Monitoring Operations Center—the world's only hardware-independent monitoring solution—which continuously polls each battery and battery string or system in all Cologix facilities. The Cologix team can access the system locally because they can also view the latest data at any time using any Web or mobile browser. Plus, "proactive monitoring to avoid operations downtime" finally means a good night's rest without worrying about battery or UPS failure.

Cologix helps improve reliability, simplify maintenance, reduce operating expenses

Canara is helping Cologix ensure reliability and keep operating expenses down by reducing maintenance costs and extending the life of batteries and uninterruptible power supplies. With proactive 24/7 monitoring, batteries and uninterruptible power supplies are continuously checked and replaced when needed, rather than on an arbitrary two-and-a-half to three-year time-based schedule. Fewer touches to the equipment mean less time spent on maintenance and reduced risk of maintenance-induced faults and errors.

Almost immediately upon deploying Canara, Cologix realized benefits. In the fall of 2012, Cologix replaced several batteries on its data center generators, wanting to improve the reliability of the equipment. Three weeks later, Cologix deployed Canara monitoring on its brand-new batteries. During the first week of monitoring, one of the new batteries failed—just before Superstorm Sandy struck.

"Without Canara monitoring, we would not have discovered the failure until we were in need of the generator due to adverse weather conditions—and we might not have had a functional generator," says Spencer. "That's the real value of this solution; it lets us find and correct a potential failure proactively instead of doing reactive root-cause analysis after a costly incident."

Another example of proactive management is Canara's monitoring of electrical "ripple" through the system. Disruptive, residual periodic variation of power supply direct current (DC) output will, at some point, become excessive and can cause intermittent failures, reboots and computer lockups. Canara is one of the only solutions on the market that measures and analyzes ripple current trends. Their monitoring can identify any changes that could indicate a problem with the UPS (such as a faulty capacitor or inverter board), reduce battery life or even void equipment warranties.

Maintenance activities equate to costs. As Spencer explains, however, "Our goal is cost avoidance and to invest money in the right places at the right time. Canara is helping us with this investment—while cutting our number of relatively ineffective manual maintenance visits by 50 percent."

With round-the-clock monitoring and replacement as needed, Spencer has seen Canara extend battery life. "With this solution, we're ensuring that our customers receive greater reliability," Spencer says.

Spencer believes that the Canara solution increases Cologix's customer satisfaction and retention. "Our existing and potential customers look at the qualitative measures we take in our data centers. We differentiate ourselves by showing that we're proactively monitoring our critical support systems, which is what uninterruptible power supplies and batteries represent in the data center. Our customers feel more confident with seeing our attention to detail and knowing that we're taking action to manage system uptime to the highest degree possible."

Cologix has made Canara monitoring and management part of the company's data center best practices. "As we bring more data center space online," Spencer says, "Canara is part of our standard configuration and install."

> "We were looking for the optimal value and found that with Canara"
>
> — MATT SPENCER, COLOGIX

[1] Ponemon Institute, Calculating the Cost of Data Center Outages, sponsored by Emerson Network Power, February 1, 2011.

canara™

NORTH AMERICA
181 Third Street, Suite 150
San Rafael, CA 94901

+1 415 462 8950 TEL
+1 877 422 8874 TOLL FREE
+1 415 532 2384 FAX

EMEA
Festival House, Jessop Avenue
Cheltenham, Glouscestershire
GL50 3SH

+44 (0) 208 819 7047 TEL

CHINA
Building 18, Area B, No. 1
Disheng North Street
Yizhuang Economic and
Technological Development Zone
Beijing, 100176 China

+86 10 8712 0457 TEL
+86 10 8712 0005 FAX

ONLINE
www.canara.com
sales@canara.com