



Langan Engineering & Environmental Services

Langan Engineering & Environmental Services is an engineering and environmental consulting firm with expertise in nearly all real estate development sectors.

Background

In the midst of rapid growth and a corporate initiative to become more environmentally responsible from an IT perspective, Langan needed to upgrade its data center. A key part of this effort was installing an uninterruptible power (UPS) system that would support efforts to reduce data center energy consumption and provide a clear path for expansion as blade servers and virtualization were introduced.

Case Summary

Location: Elmwood Park, N.J.

Products/Services:

- Liebert NX with Softscale™ technology
- Liebert Services Remote Service Delivery

Critical Need: High availability of data and IT services across the company with a clear roadmap for supporting virtualization and future IT growth, and reducing data center energy consumption.

Results

- Optimized data center efficiency with a software-scalable UPS that can quickly and easily double in capacity without adding or modifying hardware.
- Established an economical path for growth that maximizes capital investments and meets data center space constraints.
- Created a flexible power infrastructure that responds quickly and easily to the introduction of new technology and the change in data center equipment while decreasing downtime by 20 percent.
- Reduced data center energy consumption by installing a UPS that operates at a 97 percent efficiency level.

Situation

Langan was confronted by two equally significant challenges. First, the company was experiencing a period of rapid growth. In five years, the company had grown from 200 to 560 employees. The second challenge was a company-wide initiative to become a more environmentally friendly company, especially from an IT perspective.

Both of these challenges weighed heavily on Sam Ishak, CIO, and Michael Breen, IT manager.

“I was excited about the prospect of enhancing our data center to help meet the needs presented by these challenges,” says Breen. “I knew my first priority had to be my power infrastructure because it wasn’t even adequate to meet our current needs. However, I wasn’t even sure if there was one solution that could take us to where we needed to be.”

In the Elmwood Park, N.J., area, utility power is an issue. The building where Langan is located has experienced power interruptions and disturbances. To make matters worse, Breen’s current UPS units were at maximum capacity and were continually being overloaded. If action was not taken, data center power would soon grow into an issue that could potentially cut into the company’s bottom line.

To help with the environmental initiative, Ishak decided to install 14 blade servers and implement a virtualization strategy that would allow the company to decommission legacy servers and reduce energy consumption in the data center.

“It was important that we find a simple answer to our growing power needs. One that would take up little space, help us increase efficiency and provide a reliable power infrastructure,” says Ishak. “Most of our staff is behind their keyboards 75 to 100 percent of the day. Any time there is a potential power outage it is important that we keep systems available so we can continue to meet important client deadlines.”

Solution

After conducting an extensive investigation of the leading UPS options in the industry, Breen decided he wanted a Liebert UPS from Emerson Network Power. However, he was not sure which one was right for his needs.

Breen spoke with Carl Long, a Liebert Representative about a UPS unit that would support further growth and energy efficiency initiatives, and also free up valuable space in his already crowded data center. Long recommended the Liebert NX with Softscale technology.

The Liebert NX with Softscale technology combines the industry’s most flexible approach to scalability with an efficiency rating of up to 97 percent. It can be sized to current requirements and then easily scaled with a simple software key as needs change. In addition, modules with different ratings can work in parallel to handle higher capacities or offer redundant operation.

Solution (cont'd)

Start-up with the unit also includes one-year remote service delivery that provides monthly equipment health reports, alarm retrieval and warehousing, escalation management and 24 x 7 emergency response from Emerson Network Power's Liebert Services.

In early 2008, Langan installed one Liebert NX UPS rated at 40 kVA with the capacity to scale to 80 kVA.

The Results

Upon installation of the Liebert NX UPS with Softscale technology, the power capacity of the data center was increased.

"The single Liebert NX UPS replaced our seven older UPS units, which were at maximum capacity and we have not yet even unlocked the full capacity of the unit," says Breen. "Because of its software scalability I can simply unlock additional capacity to 60 kVA and then 80 kVA as we need it without having to replace or bring in more hardware. I especially like that I will not need approval from my CIO or CFO for more equipment."

Breen also sees great value in the remote service delivery that comes with the unit. "Our site is now monitored 24-hours a day. Liebert Services has notified us a number of times when they have seen voltage drops in the building, and they quickly worked with building management to identify and, if necessary, resolve any issues."



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*Michael Breen, IT Manager,
Langan Engineering & Environmental Services*

With the reliable power infrastructure provided by Emerson Network Power, Breen no longer has worries about power disruptions bringing the whole company to a complete standstill. In fact, shortly after the unit was installed, power was disrupted and the Liebert NX carried them through. He estimates that approximately 20 percent of the downtime currently experienced by the company will be eliminated by the Liebert NX.

The Liebert NX allowed Breen to confidently move forward with installation of blade technology and implementation of virtualization, which was a significant step in the data center supporting the company's energy efficiency initiative.

Virtualization will enhance the company's disaster recovery plan, which was another reason for the implementation.

"We currently have 10 remote sites. Once our virtualization is complete, the plan is that if one of the sites experiences a weather-related event and goes down, we can easily take the virtual image of the affected servers and get them going again at our disaster recovery site."

As his budget allows, Breen plans to decommission servers that are no longer needed as a result of virtualization – he currently has 10 servers that fit this description – and then speak to Emerson Network Power about his cooling infrastructure.

"If I had to pick the most important benefit of the UPS, I would, without a doubt, say the Softscale technology," continues Breen. "The ability to change the capacity of our physical power infrastructure from 40 kVA to 80 kVA is an amazing technological advancement."

"Here at Langan we want to be the best

engineering and environmental consulting firm in the country. Two important steps in that process are growing our company with talented technical experts and becoming one of the most environmentally responsible companies in the industry," says Ishak. "Emerson Network Power and its Liebert technologies have given us a flexible and efficient power infrastructure to help us work toward that goal."

For more information, visit www.liebert.com.

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