



GridWay Computing Corporation

GridWay Computing Corporation serves small to medium-size businesses globally, offering managed services, disaster recovery, custom web applications and desktop support as well as co-location and cloud computing services. The company caters to a large variety of customers, including, but not limited to, doctors, accountants, legal firms and semiconductor providers.

Background

To better serve its wide variety of clientele, GridWay, an Ottawa, Ontario-based IT and data center services provider, decided it was time to expand its data center capacity and operations. The company needed a solution that would produce energy efficiencies and savings and offer the flexibility and scalability to grow with its client base—a key requirement in a competitive and constantly changing SMB market. “We want to expand intelligently, so that we add equipment only as we need it, not all at once,” says Chris Kramer, Chief Technology Officer. “Cost-effectiveness and efficiency are very important – they allow us to pass savings along to our customers.”

Case Summary

Location: Ottawa, Ontario

Products/Services:

SmartAisle infrastructure: an intelligent, row-based infrastructure solution that integrates power, precision cooling and control technologies in a modular, rapidly-deployable design.

The solution includes:

- Liebert CRV Row-based Cooling
- Liebert APM On-line UPS
- Liebert MPH Managed Rack PDU
- DCM Modular Rack Systems
- Liebert iCOM Controls

Critical Need: An IT infrastructure solution from a single source that allows GridWay to cost-effectively expand IT capabilities, while having the flexibility to scale to support business growth.

The Results

- Supports current clientele with a smaller, more energy efficient data center footprint
- Reduced installation costs by eliminating the need for a raised floor
- Increased services and performance while lowering energy costs
- Improved accuracy in customer billing with new monitoring solution





“Using the SmartAisle infrastructure,” says Chris Kramer, Chief Technology Officer, GridWay Computing Corporation, “we’ve ensured that our growth happens in-line with our business needs and strategies. We’re buying what we need, when we need it, and still cutting energy costs along the way.”

The Situation

Heightened demand for GridWay IT and data center services left the company’s older data center incapable of ensuring reliable service. “We simply didn’t have the capacity we needed to support customer demands, and everything we do is dependent on the data center. It’s crucial,” says Chris Kramer, Chief Technology Officer.

“We looked at expanding the data center we had at the time, but it just didn’t make sense financially. Eventually, we decided that purchasing a new facility and building a new data center was the best option. We realized we could capture more energy savings and efficiencies with a new data center.”

GridWay management had two main requirements for the new data center. “Primarily,” says Kramer, “we wanted to avoid using a raised floor design to help us keep the installation simple and cost-effective.”

Second, it was important that GridWay utilize a solution that employed equipment from a single source. “I like the consistency and simplicity of using one manufacturer for all of our infrastructure equipment.”

In addition to these requirements, GridWay wanted to avoid adding too much new equipment – especially if the equipment would be unused for any period of time. Kramer explains that keeping capital expenses to a minimum is important to GridWay’s business model;

however, he did not want to sacrifice the flexibility to easily expand as business grows. “We knew that finding the right balance would be difficult but not impossible with the right solution.”

With these challenges in mind, Kramer and his team contacted the data center design experts at Emerson Network Power. “We’d partnered with them for 14 years – they were the obvious choice.”

After examining GridWay’s needs and future space, the Emerson Network Power representative had the perfect solution for GridWay: SmartAisle infrastructure.

The Solution

SmartAisle Infrastructure

The SmartAisle infrastructure is an intelligent, integrated row-based solution that optimizes data center performance and efficiency. This solution helps businesses, such as GridWay, save space, cut costs and maintain a flexible plan for expansion.

Since Kramer and his team prefer to use infrastructure products from a single source, the SmartAisle solution is a great choice: it uses only Emerson Network Power solutions to provide UPS, cooling, power and management technologies in a modular design.

Simplified Design for Intelligent Growth

Currently the data center has nine racks in a one row configuration to support its current clientele, with space to grow to 50 racks. “It’s an all Emerson Network Power solution, so we know everything works together and when we need to expand, we know what we need to add,” Kramer explains. By using the SmartAisle infrastructure, GridWay can now support the current clientele with a smaller, more energy efficient data center footprint.

High-Availability Precision Cooling for Operational Efficiency

For protection from heat, the SmartAisle infrastructure employs the Liebert CRV row-based precision cooling solution. The Liebert CRV features high-efficiency digital scroll compressors. Digital scroll compressors enable cooling capacity to precisely match cooling demand without cycling on or off, reducing energy consumption and increasing compressor life.

The Liebert CRV is located at the end of the row, and directional air baffles target the equipment. “Using the Liebert CRV, we were able to stay away from a raised floor design, and still feel confident that our equipment was protected.”

The Liebert CRV unit features a Liebert iCOM control system. The Liebert iCOM control system ensures that temperature and humidity are kept at the ideal parameters. This helps optimize operating conditions and maximize equipment lifespan. When additional Liebert CRV units are added – plans are to place one in the middle of the next row – the Liebert iCOM control system will allow the units to work as a team, eliminating wasted energy usage and overcooling while streamlining management.

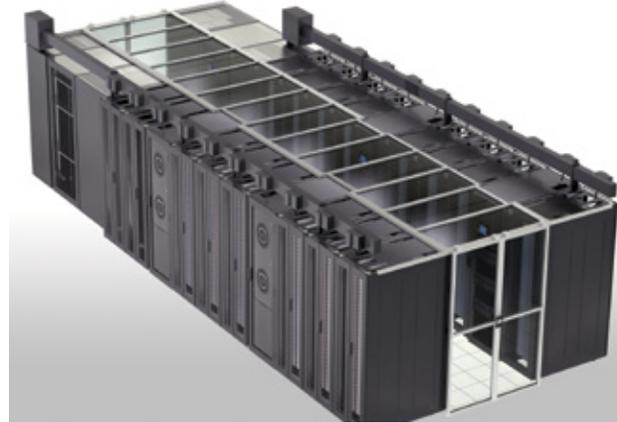
Reliable UPS and Managed Power Distribution

The GridWay team also wanted a flexible solution for power protection. “We didn’t want to get stuck with a lot of equipment we didn’t need and couldn’t use right away,” says Kramer, “but we also wanted to be able expand quickly when we needed to. So, we went with the Liebert APM UPS.”

The Liebert APM is a transformer-free, on-line UPS that allows quick and easy capacity increases with FlexPower hardware assemblies. The Liebert APM allows GridWay to increase capacity without increasing equipment footprint. The row-based UPS currently supports 7kW per rack at GridWay and operates at the industry’s highest efficiency – up to 94% efficiency at loads 50 – 100%.

“The Liebert APM is great. It’s hard for us to know how fast expansion will come, but with it we do know that we have the ability to expand our power capacity easily. It’s also very simple to monitor over the web – we can keep track of it from anywhere.”

As part of the power distribution and protection system, GridWay utilizes the Liebert MPH managed rack PDU. The Liebert MPH PDU offers control at the receptacle level as well as monitoring of the strip. “With the Liebert MPH, we completely changed how we bill our clients. Before, we were estimating how much energy a piece of equipment was using. But now, with the receptacle level control, we can monitor energy usage per piece of equipment and accurately report it. We love it, and clients do, too. It’s a selling point for our services because clients never have to question if they are being overcharged for energy usage.”



“We’re primed to grow, now, but we can also rest assured that everything in our new facility is performing efficiently and saving us money – and that’s what helps us keep costs down for our clients.”

Chris Kramer, Chief Technology Officer, GridWay Computing Corporation

Industry-Best Service and Support

All IT equipment in GridWay’s SmartAisle infrastructure is housed in DCM Modular Rack Systems, which maximize space utilization and allow for easy implementation of equipment. DCM Modular Rack Systems also feature tool-free accessories to keep cabling organized and improve airflow. “With all the parts together, the SmartAisle infrastructure looks great. We can bring clients in to show them our data center. They immediately see that we’re a professional, top-notch organization and are more comfortable using us.”

Kramer and the rest of the GridWay team also benefit from Emerson Network Power service and support. Their local representative from Emerson Network Power was a key part of the design and implementation of the SmartAisle infrastructure, and Emerson Network Power continues to support and service GridWay’s IT equipment as the data center expands.

“[Our representative] went with us everywhere in the beginning,” says Kramer, “we probably took him to three or four different locations. He helped architect this solution and made sure the process went smoothly, and now he’s making sure everything continues to go smoothly. He gives us the same attention he would give even his enterprise-level clients.” Chris Kramer, Chief Technology Officer, GridWay Computing Corporation

The Results

Kramer and his team are thrilled with the SmartAisle infrastructure. “We’re providing more services at higher performance to our clients, but our power bills have barely changed. It’s plain to see that our equipment is performing very efficiently.”

The SmartAisle infrastructure also allows GridWay to expand the data center alongside the company’s business needs, ensuring Kramer’s commitment to business-savvy growth. “With these changes,” he says, “we’re able to grow intelligently into what we know we want to be eventually – and we can save money along the way.”

The company’s clientele is excited about the changes, too. They have already begun reaping the benefits of more accurate billing, higher performance, and increased availability. “People are excited about the new data center. I’ve taken our current customers over for a tour and prospective customers as well. They’ve really enjoyed seeing it – it’s a great selling tool,” says Kramer. To make customer tours more engaging, GridWay uses remote monitors to show clients real-time information on data center and power usage when they visit.

GridWay is currently planning on building an additional data center to use as a dedicated disaster recovery site. Kramer and his team plan to turn to Emerson Network Power and the SmartAisle infrastructure to help them meet the challenges of this new facility.



With the Liebert MPH Managed Rack PDU, GridWay can easily monitor power usage and ensure accurate billing. “Our customers can rest easy because they know they are being charged for exactly what was used – we’ve taken guesswork out of the equation,” says Chris Kramer, Chief Technology Officer, GridWay Computing Corporation

For more information on Gridway, visit <http://gridway.net>

For more information on the SmartAisle infrastructure and to other Emerson Network Power equipment, visit <http://emersonnetworkpower.com>

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