

Customer Success Story: Victory Technology Center

Markets served
Data center



PUE benefits from not-so-traditional colocation deployment

Location:

Lackawanna, N.Y.

Segment:

Colocation

Challenge:

As an innovative colocation provider, the company desired a progressive approach as it built out its second equipment room

Solution:

Paramount Enclosure System, ePDU G3, Eaton® UPS

Results:

From sparkling white equipment enclosures to effective power distribution to highly reliable power protection, VTC found everything it was seeking in a comprehensive data center solution from Eaton.

"Paramount is one of the friendliest enclosures we have seen as far as its portability and the ability to easily work in it. Plus, it's very well built and has a great price. It had many of the offerings we both required and desired."

*Michael A. DiGiore, director of
Victory Technology Center*

Background

Victory Technology Center (VTC) is among Western New York's most innovative colocation facilities. Born as a strategic reuse initiative for a closed hospital, the facility was initially conceived as a solution for the technology demands of a major multi-hospital healthcare system. The expert team brought in to develop VTC leveraged and retrofitted the existing infrastructure and architectural features to build the optimum colocation environment for data centers. Industry best practices, trade experts, and advanced technologies were utilized throughout the design and build of the site.

By designing to TIA-942 and Uptime Institute Standards, the VTC team was able to achieve high standards for redundancy, diversity, capacity and availability. Rated an overall Tier-III facility, with all critical infrastructure components rated Tier IV, VTC is considered an Infrastructure as a Service (IaaS) colocation, offering flexible models for customers of varying size and need. From shared colocation environments to dedicated hard-walled suites, VTC works closely with clients to ensure a best-fit solution is implemented to meet their needs.

Challenge

When it came to expanding the data center to meet the needs of its growing multi-tenant business, VTC wasn't satisfied sticking with the status quo. Rather, the company sought to be on the cutting edge of innovation when it unveiled Suite II, a second equipment room constructed adjacent to the facility's original Suite I.

Michael A. DiGiore, President of MDC Solutions Inc., was contracted by Catholic Health to design, build and manage the VTC. The new addition was conceptualized to be light, bright, highly efficient, easily accessible and aesthetically pleasing. To outfit Suite II, VTC required enclosures and power distribution. In order to accomplish its list of objectives, the company established a list of mandatory and desirable criteria for the new equipment to be deployed. After considering several vendors, VTC discovered that the company capable of turning its vision into reality was Eaton.

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Solution

With 87 cabinets slotted to ultimately occupy Suite II, selecting the optimal enclosure was imperative. Not surprisingly, that led the organization to the Paramount Enclosure System from Eaton.

“We really liked the ease of use,” explains Michael A. DiGiore, director of Victory Technology Center. “Paramount is one of the friendliest enclosures we have seen as far as its portability and the ability to easily work in it. Plus, it’s very well built and has a great price. It had many of the offerings we both required and desired.”

Available in a variety of heights, depths and widths, Eaton’s Paramount Enclosures offer a scalable and modular approach to enhance customers’ overall investment by employing a building-block design that ensures quick reconfigurations while minimizing downtime.

Another benefit for VTC was the ability to select a light-colored enclosure, which is a newer option for the Paramount series. There are notable advantages to deploying the lighter-colored varieties, including better visibility, greater efficiency and aesthetic appeal.

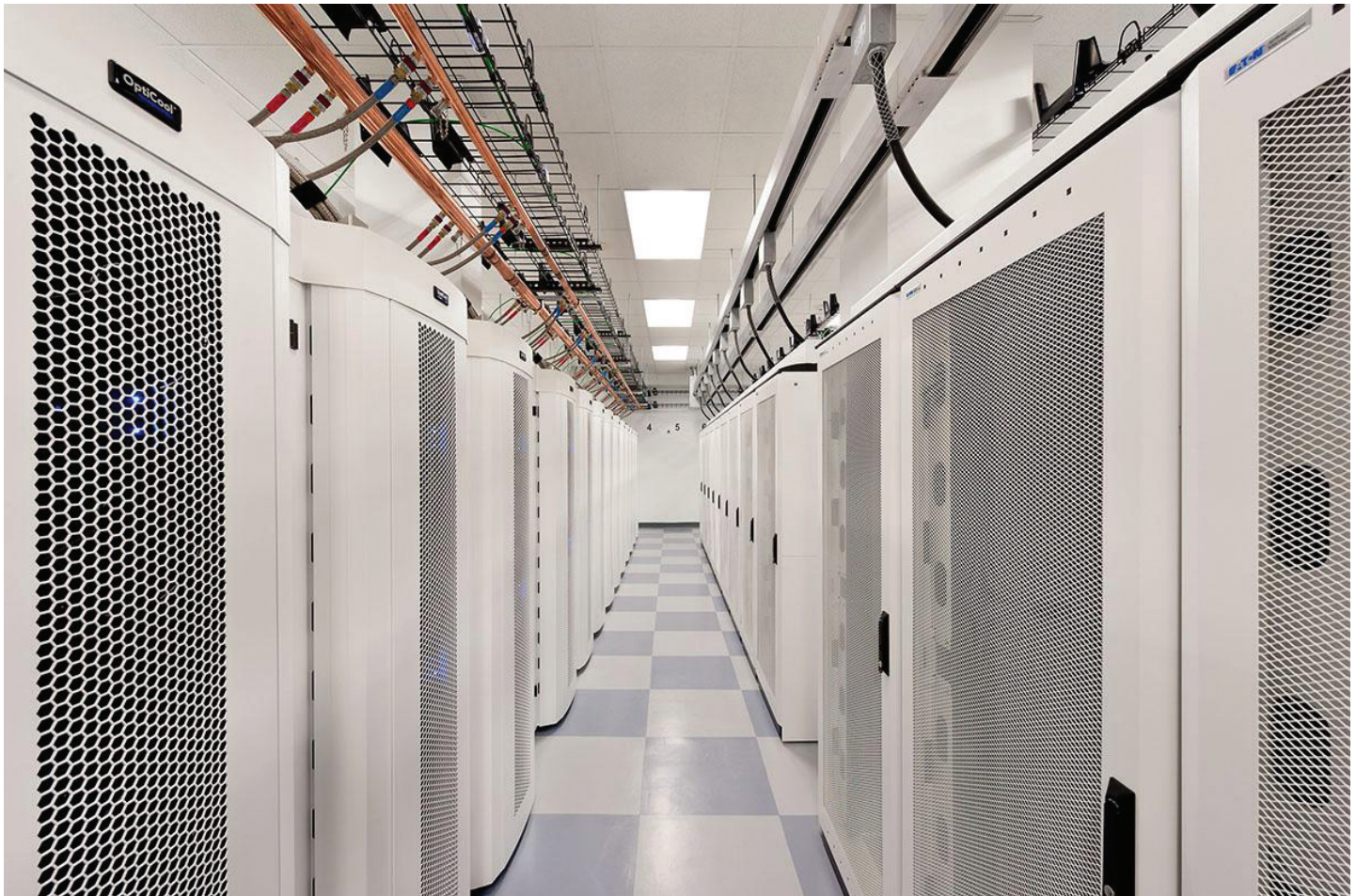
Because gray or white enclosures reflect up to 80 percent of light—compared to only 5 percent with black—the lighter models require significantly less lighting in the Suite itself, while also making it easier for technicians to see the equipment while working inside the enclosure. Even more important in today’s data center environment, where every kilowatt savings matters, is the efficiency factor of white. Lighter models have been shown to reduce lighting energy consumption by 30 percent, as well as require up to 30 percent fewer fixtures, as their darker counterparts radiate more heat.

Indeed, DiGiore reveals that the soft tone of the Eaton enclosures—which VTC opted to lighten even further with a customized white paint—has proven to be more efficient and necessitated less lighting. “I didn’t need as much as I usually would with the dark enclosures,” he explains. “Plus, you can see so much better when you’re working inside of them. Clients have made it a point to mention the improved visibility. It is less of a strain on their eyes when working long hours inside the racks.”

DiGiore is also extremely impressed with the aesthetics of the enclosures, which offer a unique, fresh look that he credits with helping attract new customers to the colocation facility. “It’s so clean,” he enthuses. “The level of appeal is outstanding. People just rave about it.”

Eaton not only supplied the enclosures for VTC’s new Suite II, but seamlessly coordinated with several other vendors to execute the firm’s desired overall solution. To begin with, VTC chose to outfit the Paramount Enclosures with OptiCool Technologies’ Cool Door System (CDS), which removes heat from the exhausted air. The modular design of the CDS facilitates easy entry to IT equipment by opening and allowing full access to the back of the rack, similar to a standard rear enclosure door. The CDS is made of lightweight materials and is readily available in standard sizes.

“The refrigerant doors don’t just passively cool the air,” DiGiore explains. “They actually pull the air through the equipment faster than the servers’ fans exhaust it, and convert it into cold air. It reverses the standard approach to data center cooling by focusing on cooling the enclosure first, and the room second.”



Beyond the aesthetically pleasing look of the Paramount Enclosure System, the white enclosures also provide added energy efficiency and a more user-friendly working environment.

he continues. "It provides a much more efficient and targeted cooling approach while maintaining the entire room at 75 degrees. The efficiencies have been incredible. We're running at close to a 1.0 PUE."

Eaton worked with OptiCool to ensure the equipment pieces came together effortlessly by obtaining drawings ahead of time and custom building the mating plates so the OptiCool doors would interface with the backs of the enclosures.

Prior to shipping the enclosures to VTC, Eaton also pre-installed the Digitus db BioLock system that VTC chose for the enclosure doors. The system enabled the enclosures for three-factor authentication, including biometric identification. "It's more secure," DiGiore says of the system. "And it's great for auditing purposes because we can provide more granular access detail as to who is in and out of each enclosure and at what time."

Furthermore, the colocation provider equipped each Paramount Enclosure with a pair of Eaton's new third-generation (G3) ePDUs which provide best-in-class power distribution and enable data center managers to effectively monitor and control their rack environments. The G3 is not only easy to install, but reduces operating costs while increasing reliability.

DiGiore has been very pleased with the Eaton models. "We offer a highly advantageous model to our clients with power metered per enclosure and billed at actual use," he says. "This is as opposed to the traditional colocation model of a flat power rate bundled into the enclosure, which often means clients overpay for their power usage. However, a metered model demands an easily programmable, controllable, and highly reliable PDU. The G3s are much easier to interface with, program, and read," he adds. "Plus they have a smaller form factor and locking receptacle. They are just much more user-friendly and are ideally designed for data centers."

DiGiore also manages the UPS infrastructure for the other critical IT environments operated by VTC's parent company, Catholic Health, in Buffalo. In this role, he has deployed two larger, three-phase Eaton 93PM UPSs and an Eaton 9390 throughout these environments. Installed in data closets, the units safeguard multiple VoIP stacks and other critical equipment.

The 93PM combines unprecedented efficiency, reliability, and vertical or horizontal scalability with eye-catching design. A space-saving, flexible, device that is as easy to deploy as it is to manage, the unit offers an ideal three-phase white or grey space solution for today's data center. Meanwhile, the energy-efficient 9390 UPS provides backup power and scalable battery runtimes in a small footprint for mid-size data centers, medical equipment, and other critical communications systems. With the ground-breaking Energy Saver System, the 9390 operates at 99 percent efficiency, with the ability to pay for itself in three to five years—without sacrificing reliability.

To ensure high availability and uptime to Catholic Health's Voice over IP switches, DiGiore also selected the Eaton 9130 UPS, which delivers online power quality and scalable battery runtimes while boasting an efficiency rating of greater than 95 percent.

Complementing the quality of Eaton's products was the company's sales process and attention to detail, according to DiGiore. The data center director offers high praise for Eaton's delivery, lead times and access to enclosures.

"The delivery was seamless; it was perfect," he emphasizes. "They brought the enclosures in, removed them from the skids, and placed them where they needed to be. It was nice and simplistic; the way it should be."

Even more, Eaton jumped through hoops to ensure VTC obtained the enclosures on its desired schedule. "They expedited in order to meet our clients' needs and timelines," DiGiore reports. "The Eaton team was on top of everything and did a great job."



VTC selected Eaton's easily manageable and highly reliable G3 ePDUs to facilitate their model of metering and billing power at actual use with utility grid accuracy.

Results

Looking ahead, as VTC anticipates continued data center growth, the colocation company is grateful to have such a responsive partner.

"I have additional enclosures anticipated," DiGiore says.

"And I am glad to have chosen the Paramount."

With the Eaton solution in place, VTC has achieved all of its objectives for Suite II:

- Deploy high quality, well-built, easy-to-access enclosures
- Capitalize on the numerous benefits afforded by light-colored enclosures
- Ensure all components and customized options came together without a hitch, thanks to Eaton's professionalism and coordination
- Gain cutting-edge power distribution with Eaton's G3 ePDUs
- Safeguard critical equipment and achieve continuous uptime with Eaton UPSs

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Eaton.com/enclosures

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