



Datacenter Solution Spotlight

Datacenter Design & Build

Client: Malone University
Location: Northeast Ohio



Customer

Malone University is a Christian liberal arts university founded in 1892 and currently located in Canton, Ohio. Its mission is to provide students with an education based on biblical faith in order to develop men and women in intellectual maturity, wisdom, and Christian faith who are committed to serving the church, community and world.

Business Need

Malone University was growing, and the organization, efficiency and overall capacity of its datacenter needed to grow along with it.

The university was experiencing significant growth in both student enrollment and educational buildings. As can be expected, this led directly to increased demand on its data assets. Traffic bottlenecks and chronic temperature issues led to increased power costs and made middle-of-the-night emergency calls a regular occurrence for the maintenance staff.

But deficiencies in capacity were only part of the problem. The outmoded design of the datacenter was inefficient, and the fact that it was housed in two separate facilities only compounded these inefficiencies, as the IT staff struggled to maintain a decentralized system. The extra time and resources spent in maintenance was directly impacting their ability to address more strategic, long-term IT projects.

The university needed to address all of these critical issues while still adhering to a tight budget.

Solution

MCPc was chosen to guide the project and an American Power Conversion (APC) InfraStruXure was secured to support a more efficient and properly designed datacenter — a current weakness of the existing dual-room system. This solution was chosen over competing vendors due to its better design, ability to stay within the budget and Malone University's long-standing relationship with APC and MCPc. As part of the planning process, the required amount of racks — as well as specific rack components — was determined and configured using APC's build-out tool. This tool, which was also used by engineers to design the datacenter, was utilized in meetings with APC, MCPc and Malone University to show rack by rack what would be included in the datacenter.

The new datacenter components included a high-efficiency, three-phase uninterruptible power supply (UPS), a diesel backup generator and fifteen racks with InRow cooling units. APC's InfraStruXure Central also was implemented and will electronically monitor all aspects of the datacenter's physical infrastructure on an ongoing basis.

Once the design and location of the datacenter were finalized, APC built the racks and assisted with the installation of the hardware and infrastructure.



Highlights

As a result of physical expansion and significant growth in enrollment, Malone University was in need of a redesigned datacenter to ease the strain on its current system. MCPc secured an American Power Conversion (APC) InfraStruXure for the new design. The end result is a more efficient, centralized datacenter that has greater bandwidth and is scalable to future growth.

Benefits

- The centralized datacenter saves system administrators time in management and maintenance.
- In-row cooling and a high-efficiency backup system have led to additional utility cost savings.
- Extra rack space allows for additions to the infrastructure as the university continues to grow.
- A monthly payment financing option allows the university to achieve the maximum value for its dollar while staying within budget.



MCPc was able to combine all components into a single order from APC and also worked with leasing firm Tip Capital to create a tailored financing plan that accommodated Malone University's budget. This helped school administrators process invoices more quickly and spread payments out over time so that it would adhere to tight and sometimes fluctuating budgetary restrictions.

Results

The end result of the new datacenter project led by MCPc was efficiency on several levels. The new location in one room with a streamlined rack system combined with APC InfraStruXure Central means IT personnel are spending less time in cumbersome maintenance and more time on critical strategic projects. Before, the previous datacenters were a chronic source of network emergencies, often forcing the IT staff to wake up in the middle of the night to address them.

That's all changed.

"We were facing many problems with our two old server rooms," says Jim Shaffer, senior network engineer. "We had aging batteries; we had cooling problems. The new datacenter solution has resolved these issues. We now have adequate power, and in the event of a power outage we have a generator that comes online automatically. We now have adequate cooling — if we lose an air conditioner, it's not a problem because we have a redundant air-conditioning system. And it's so nice to be able to sleep at night."

The in-row cooling and high-efficiency UPS backup system — which was specifically designed to support this datacenter — have also led to savings in utility costs. MCPc's design even ensured greater efficiency in future datacenter expansion, as the installation of additional racks will allow the university to scale in stride.

The monthly payment option offered by Tip Capital allowed Malone University to purchase all necessary hardware for the project while staying within budget. Without this flexible financing option, certain aspects of the project, such as the in-row cooling and backup generator, may not have been feasible in the phase-one build out.

If your datacenter is inefficiently designed, strained in capacity or costing you unnecessary power and cooling costs, MCPc can help tailor a solution that resolves these issues and meets your unique requirements.

"MCPc has a tagline, 'we make doing business easier.' And it's true. By working with MCPc, we were able to pull off the datacenter project on schedule and on budget."

Clark Hoopes

Director of Information Technologies
Malone University

Watch the video of this Solution Spotlight at <http://www.mcpc.com/media/players/malone-spotlight.html>.



About APC

American Power Conversion (APC) provides protection against some of the leading causes of downtime, data loss and hardware damage: power problems and temperature. As a global leader in network-critical physical infrastructure (NCPI) solutions, APC sets the standard in its industry for quality, innovation and support. Its comprehensive solutions, which are designed for both home and corporate environments, improve the manageability, availability and performance of sensitive electronic, network, communications and industrial equipment of all sizes.

Known for its quality, innovation and industry leading service and support, APC has perhaps the longest list of accolades in its industry. Not satisfied with this, APC is working diligently to achieve its corporate mission of creating delighted customers by improving the manageability, availability and performance of information and communication systems through the rapid delivery of innovative solutions to real customer problems.

