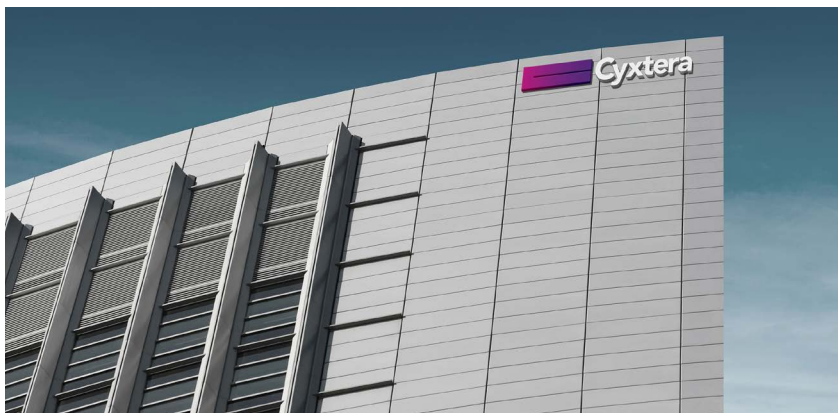# Data Centers

Customer Stories:
Cyxtera Communications

Project Summary
Upgrades to Cyxtera's chilled water plant and pumping system controls saves them $2,124,000 per year at mission-critical data center.

Challenge
Cyxtera Communications leased the Weehawken, New Jersey, data center site (NJ2) in 2001 in part due to its proximity to Wall Street and the New York-New Jersey financial markets. The close location meant Cyxtera could take advantage of near-zero lag time in providing its proximity hosting solution to its customers. The NJ2 facility is a split tower with 10, 300-ton Trane Model RTAA air-cooled chillers—five chillers on each tower, each witha Systecon Inc. pumping system and control panel. However, the original control system did not allow for the kind of comprehensive monitoring and control that a mission-critical data center facility requires.

Project Highlights

Location: Weehawken, New Jersey

Industry: Retail Colocation

Products Used: Chillers

Services Used: Energy Efficiency, Precision Cooling

2.0 kW per ton of cooling to 1.3kW
Decrease in energy consumption

Over $2.1 Million
Annual energy costs saved

$35,000
Rebates from local utility company

"It's a critical application and these servers are tied in directly with Wall Street. Ninety percent of the work being handled in this data center is banking. If we lost data center precision cooling for only three to five minutes, temperatures could very quickly go from 70 to 95 degrees, and it would take at least a couple of hours to recover. That could cause all kinds of problems for our clients and their customers.Loss of control and cooling simply cannot be tolerated."

- Jason Garbus,
Cyxtera Project Engineer

Solution

Systecon Inc. and Trane commercial systems teamed up to install new Systecon VariPrim™ control panels along with Tracer Summit™ building control units (BCU) to communicate with the facility's overall Automated Logic building automation system.

Results

The work began in early March 2009, with a kickoff meeting for everyone involved in the project. A June 15 deadline was set but the job was completed three days early. Garbus remarked, "We had absolutely zero impact on our customers' transactions and the operation of the data center. We never lost chilled water flow or temperature control, and we completed all of this during normal work hours.

Thanks to the Systecon VariPrime and Tracer Summit BCU upgrades, Cyxtera has better, more precise control of the data center chiller system and is reaping huge energy savings. For example, instead of running all 10 data center chillers at full load all the time, only three chillers on each tower are typically running at any given time—delivering significant energy savings and an 18-month payback for the project. When we analyzed this system, the data center chillers were running at 100 percent capacity and although the design called for 45-degree chilled water, it was delivering 34 to 35 degree chilled water.

In addition to improving the control system, this was a huge energy saving opportunity! We can now match data center chiller capacity to the exact cooling load and reset chilled water temperature back to the original design specifications. As a result, energy consumption dropped from about 2.0 kW per ton of cooling to 1.3 kW per ton, saving about $177,000 per month in energy costs. The project also qualified for $35,000 in rebates from the local utility company. Plus, the data center now has immediate backup capacity if any of the 10 chillers fail."

Another Satisfied Customer

"This project would not have been possible without Cyxtera, Trane, Systecon and the other contractors and suppliers. This team has worked together on several data center projects in the past, so this job went very smoothly. This project was likea family reunion!"

- Jason Garbus,
Cyxtera Project Engineer

"This was literally a perfect and completely seamless project. Using the 200-step procedure, everything went perfectly.It wasn't just like open heart surgery; it was like heart replacement surgery. We were so impressed that we signed a contract with Trane to further maintain our chiller plant."

- Mike Sims,
Cyxtera Director of East Coast Communications

"This project is a perfect example of the synergies that are present when industry leaders like Cyxtera, Trane, Systecon and our contractors/suppliers collaborate towards a common goal. We are very pleased with the outcome."

- Michelle Hassemer,
Cyxtera VP Global Communications

"This was the nicest job I've ever been involved in. We were very impressed with the Trane and Systecon relationship and how they worked together to ensure the success of the upgrade. Trane and Systecon demonstrate a very high level of competence that gives us great confidence. We know that when they're on a project with us, those areas of the job don't need so much oversight. We're excited to continue working with Trane and Systecon to expand and upgrade another Cyxtera facility that's right next doorto the NJ2 data center"

- Tony Blunt,
Trane Project Manager

Michelle Hassemer, Vice President of Global Operations at Cyxtera Communications, said,"
Our customers expect 100 percent uptime from our data centers. Our ability to meet this expectation hinges on the capability to provide consistent, effective and reliable data center precision cooling. Cyxtera carries responsibility as stewards of the environment as wellas a commitment to provide services in a cost-competitive manner. Energy savings derived from projects such as this both enhanceour ability to protect the environment and contribute directly to our success as an enterprise."

About Cyxtera Communications

Founded in 1995 and publicly traded since February 2000, Cyxtera Communications is a top tier managed service provider offering cross-industry global IT infrastructure services and solutions. These services include hosting, networking, security, professional services, cloud computing, business continuity, content management, proximity hosting, and web solutions. Cyxtera Communications is one of the largest IP network and hosting providers in the world, serving more than 4,000 customers, including 40 percent of the top 100 companies in the Fortune 500..

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