

## Cold Aisle Containment Reduces Power Consumption and Boosts Company Morale

Soon after transforming 4,500 square feet of office space into a new Cold Aisle Containment (CAC) Solution by Chatsworth Products (CPI), colocation provider, Hostirian, set a date to begin moving customers into their new environment.

One of the first customers located in Hostirian's legacy data center was deployed in open racks without an airflow strategy. They were integrated into the new contained environment late on a Friday night in September 2012. By early Saturday morning, that same customer, operating the identical IT load and equipment, was using 50 percent less power. From there, a new company initiative was born.

### How it all Began

Hostirian has experienced a 30 percent growth each year for the past 13 years. They now manage over 40,000 domains, 5,000 servers and over 30,000 square feet of data center space. However, with an increase in size and business, has come an unwelcomed increase in energy usage.

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Ken Cox, Vice President of Operations for Hostirian

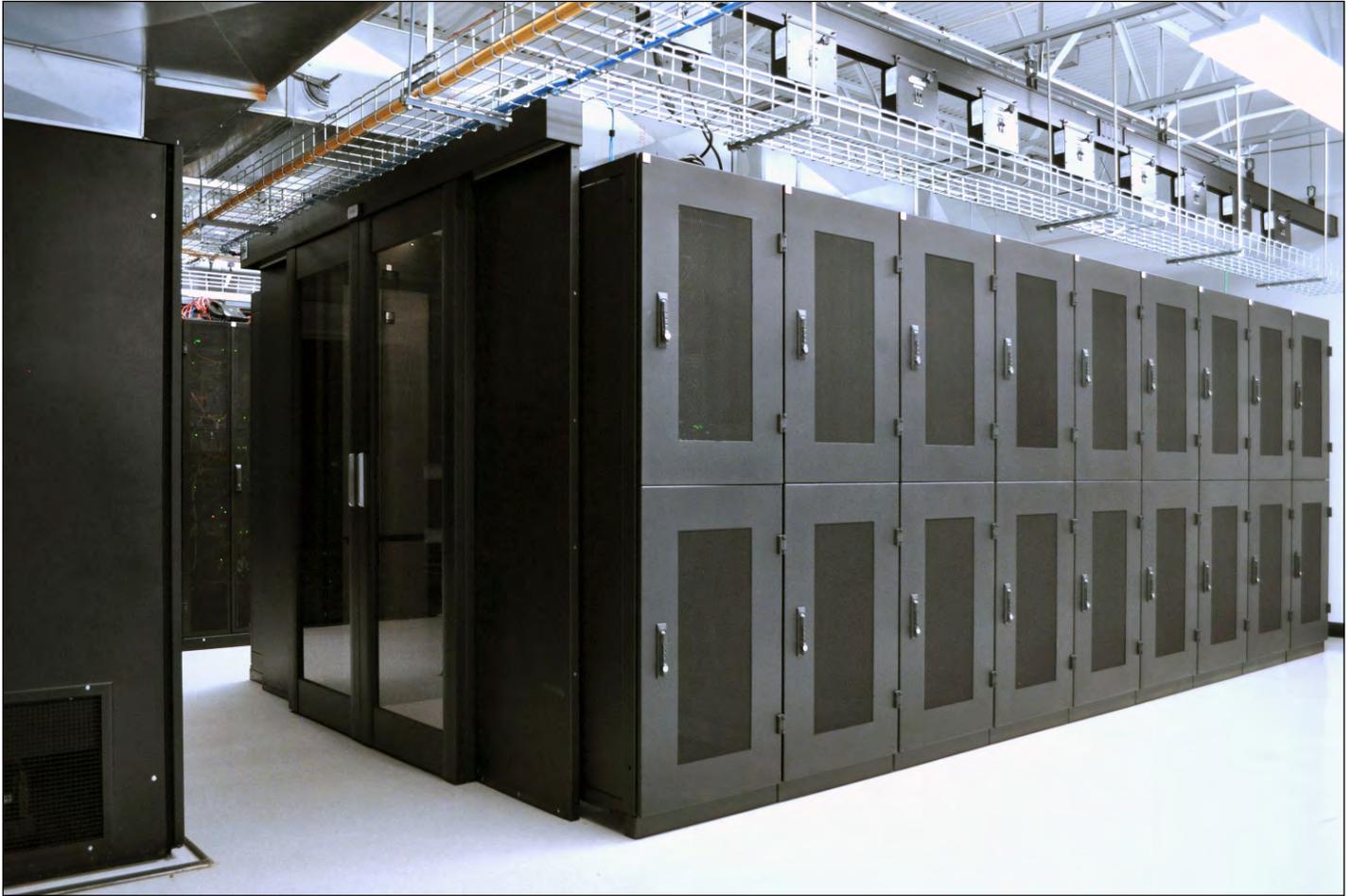


Hostirian Team from left to right: Bassam Khalil (Vice President of Sales), Tim McCormick (Sales), Steve Szachta (Chief Operating Officer), Jeff Laird (Systems Architect), Ken Cox (Vice President of Operations)

“If you walk into our legacy room, you can literally feel the inefficiencies. Our electric bill is our largest bill. Our electric use is going up, and customers want to spend less money. So, if we can reduce our electric bill, that's a benefit,” stated Ken Cox, Vice President of Operations for Hostirian. Hostirian had established a green initiative and was evaluating aisle containment solutions. The big question was ... hot or cold aisle containment solution?

After extensive research and discussion, the company decided to move forward with a CAC solution. Cox declared, “All the numbers told us the efficiencies on hot and cold aisle containment were equal but for us, at the end of the day, CAC was a less expensive build since we have the slab floor and no plenum.”

“The goal now is to move everything to cold row containment. The load in the new CAC pods is using about 50 percent less power than the legacy data center with the same IT load. That's huge. Not just for the bottom line savings, but for the equipment,” exclaimed Cox.



CPI created custom 2-bay cabinets to match Hostirian's requirements.

### The Installation

Immediately after devising a plan, Hostirian started working with Chris Holt from WG Technologies, Mark Malone, CPI Regional Sales Manager and the Bick Design Group to construct a floor plan.

During the installation, the door was a critical component to Cox for both practical and aesthetic reasons. Having used alternative methods in previous setups, such as curtains to segregate the hot and cold air, the need for a door that provided a pressurized and sealed environment was critical. "When you open that pod door, you can tell you're walking into a controlled environment from the ambient environment." Cox said.

The final floor plan was created to accommodate 18 and 22 rack pods, with 20 tons of cooling at an average of 3.5 kW per rack. The CRAC unit set

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point was 72 degrees Fahrenheit, but units were maintaining 68 degrees due to the efficiencies of air segregation. With the new design, the air units only run 50 percent of the time, allowing the other units to be in standby mode, ready to kick into action if needed.

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The final layout also included an overhead air delivery strategy that ducts air into the aisle through customized openings in the ceiling panels, as well as cabinet-to-floor seals, blanking panels and LED lights within the aisle.

### The Solution

After installing CPI equipment and CAC solution, Hostirian immediately noticed a difference in efficiency. In addition to reducing their costs, they received a monetary incentive from Ameren, their local commercial power supplier.



CAC was less expensive for Hostirian to build since they have the slab floor and no plenum.



The doors of the CAC were a critical component to pressurize and seal the environment.

“We take a big swing in the summer, and it’s not uncommon to see a 30-50 degree shift in 24 hours. We’ve taken the steps in this data center to help us get through those summer months. We are going after some hefty Ameren incentives to get a lower PUE. Right now, we’re at a 1.7.”

“We have the same gear, same IT load. We moved it from a mixed air data center to our CAC solution—the same PDU went from 18 amps at 208 to 9 amps at 208. It’s the same load, doing the same functions. The result is a much more efficient data center,” stated Cox.

When asked about CPI’s products and solutions, Cox exclaimed, “I couldn’t be happier with the overall solution. The racks feel more solid—we asked for locking half cabinets, and we got it. We wanted a specific size, and we got that. It was a reasonable price for a custom job. Everybody I’ve talked to has said this is the nicest data center they’ve seen and the nicest one in town.”

Cox exclaimed, “My favorite part of the day is touring the data center. The goal is to move everything to a CAC solution. When we get closer, we’ll bring Chatsworth back in to get it figured out.”

### Company Morale

“Part of the reason I work here is because it is roughly 20-30 percent owned by employees. You have a definite interest in making sure the company as a whole moves forward. It allows us to have conversations with the bosses because we care. We are not funded by venture capital, but instead by the

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people that work here and our customers. Our customers are our investors. We are very well aware of that. In many cases, we are responsible for their revenue stream as well,” said Cox.

Servicing the internet delivery and colocation needs of small to medium-sized businesses, Hostirian is now poised to expand its operations. Not only is the CAC solution from CPI helping Hostirian increase efficiency and power availability, it is giving the sales team and employees something to be proud of.

The showpiece has boosted the morale of the employees by improving their working conditions with state-of-the-art thermal design that keeps them and the equipment cool, as well as organizing and securing equipment in a clean and well-designed environment. In just a few short months, this upgrade resulted in multiple clients putting in bids for Hostirian’s space. [CPI](#)



Ken Cox worked with Chris Holt from WG Technologies to construct the cold aisle containment floor plan.

### About Chatsworth Products

Chatsworth Products (CPI) is a global manufacturer providing voice, data and security products and service solutions that optimize, store and secure technology equipment. CPI Products offer innovation, configurability, quality and value with a breadth of integrated system components, covering virtually all physical layer needs. Unequalled customer service and technical support, as well as a global network of industry-leading distributors, assures customers that CPI is dedicated to delivering products and services designed to meet their needs. Headquartered in the US, CPI operates global offices within the US, Mexico, Canada, China, the Middle East and the United Kingdom. CPI’s manufacturing facilities are located in the US, Asia and Europe.

CPI is listed with the General Services Administration (GSA) under Federal Supply Schedule IT 70. Products are also available through GSA Advantage and through Government Wide Acquisition Contracts (GWACs), including GSA Connections and NITAAC-ECS III. ([www.chatsworth.com/gov](http://www.chatsworth.com/gov))

### About Hostirian

Hostirian is a wholly owned business unit of River City Internet Group ([www.rcig.net](http://www.rcig.net)). Founded in 2001 in St. Louis, Hostirian now provides premium and complex hosting services through several carrier class facilities. Their essential focus is their personalized attention to customers’ needs, offering 24/7 support. Hostirian’s servers and applications are also monitored 24/7 by qualified staff and engineers ([www.hostirian.com](http://www.hostirian.com)).



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