

KOLDLOK®



CASE STUDY

Lowe's

"We can control temperatures much better by managing floor penetrations with KoldLok. We can arrange equipment the way it should be arranged, to direct airflow to cold aisles."

Eric Shepherd
Data Center Facilities Supervisor

upsite[↑]
technologies®

CUSTOMER

Lowe's

DATA CENTER DETAILS

60,000 ft²

NEEDS:

One data center supports mission-critical data for all of the company's 1,200 locations, each of which requires exceptional reliability.

Lowe's Maximizes Cooling Efficiency

For more than 60 years, Lowe's has been improving home improvement. With fiscal year 2010 sales of \$48.8 billion, Lowe's Companies, Inc. is a FORTUNE 50® company that serves approximately 15 million customers a week at more than 1,725 home improvement stores in The U.S., Canada, and Mexico. Based in Mooresville, N.C., the company employs 175,000 people and is the second-largest home improvement retailer in the world.

Data Center Needs

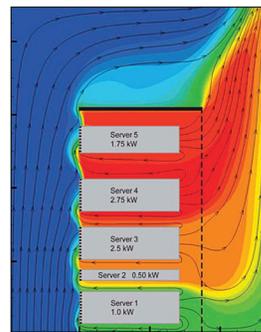
With such a large International network of stores, Lowe's relies on essential data like inventory information, employee data, and sales figures to keep the business running smoothly. One 60,000 ft² data center in Winston-Salem, North Carolina supports data for all of the company's 1725 locations, throughout the U.S, Canada & Mexico.

A "24 by forever" system availability is critical to the company because we support stores across multiple time zones. Stores are open most of the time," said Eric Shepherd, Data Center Facilities Supervisor at Lowe's. "Any downtime can heavily affect the business."

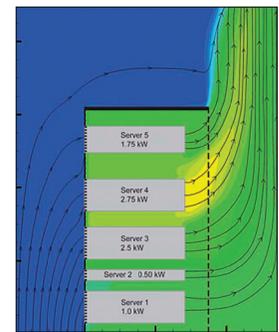
To ensure continuous uptime, Lowe's approached data center management proactively, taking best practice steps to maximize cooling efficiency and protect valuable equipment. In 2005, the data center was housed in an older 16,000 ft² facility, where air was clearly escaping from between cable cut-outs in the raised floor.

RESULTS

- By reducing air loss and arranging racks in the most efficient configuration, the data center is able to direct airflow to cold aisles and maintain overall cooling efficiency.
- So far, temperatures have remained around 69° to 70° F.
- Lowe's minimized its need for additional cooling power and fans, which translated to cost savings.



Cross Section of Airflow in a server cabinet without blanking panels installed



Cross Section of Airflow in a server cabinet with no horizontal air gaps between adjacent panels or servers

Solution

Searching the market for solutions, KoldLok Grommets from Upsite Technologies, Inc. emerged as the most effective option for locking out air while maintaining flexibility around cabling. Shepherd easily installed KoldLok on his own around existing racks. With cable cut-outs tightly sealed in the old data center, the staff noticed cooler temperatures and less air escaping from the raised floor.

Soon after, Lowe's moved the data center to larger quarters, allowing data center staff to install KoldLok Grommets throughout the room. By reducing air loss and arranging racks in the most efficient configuration, the data center is able to direct airflow to cold aisles and maintain overall cooling efficiency. So far, temperatures have remained around 69° to 70°F.

"We can control temperatures much better by managing floor penetrations with KoldLok," Shepherd said. "We can arrange equipment the way it should be arranged, to direct airflow to cold aisles. As a result, we minimize our need for additional cooling power and fans, which translates to significant cost savings."

CONTACT US TO LEARN MORE

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