



Lowe's Maximizes Cooling Efficiency at Data Center Supporting 1,200 Stores

Key Highlights

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.

Upsite Solution:

KoldLok Raised Floor Grommets

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 minimizes its need for additional cooling power and fans, which translates to cost savings.



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– Eric Shepherd, Data Center Facilities Supervisor



Customer

For more than 60 years, Lowe's has been improving home improvement. With fiscal year 2004 sales of \$36.5 billion, Lowe's Companies, Inc. is a FORTUNE 500® company that serves approximately 11 million customers a week at more than 1,200 home improvement stores in 49 states. 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

Running such a large nationwide 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 1,200 locations, from Hawaii to Florida.

“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.”

Solution

To ensure continuous uptime, Lowe's approaches data center management proactively, taking best practices 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.

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 the Grommets on his own around existing racks. With

cable cut-outs tightly sealed in the old data center, the staff noticed slightly 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 cost savings.”