



GEIST COOL CASE STUDY



Southeast Nebraska Cancer Center

Lincoln, NE

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PURPOSE:

To maintain a consistent temperature at the front of the server racks in customer's data closet, utilizing existing cooling equipment in a manner that is cost effective and energy efficient.

THE STORY:

Southeast Nebraska Cancer Center (SNCC) provides comprehensive cancer care in Lincoln and the surrounding areas, combining advanced medical oncology and radiation oncology services in two locations in Lincoln. Its goals are to provide the communities of Lincoln and Southeast Nebraska with the best care in the field and to create a warm, inviting environment. SNCC has one compact closet, which houses all the equipment to support the IT network with the equipment mounted in two server racks. A wall mounted air conditioning unit was previously installed to provide cooling to the room. As the center grew, so did the amount of equipment to support its IT network. Over time, Nate Michi, Systems Engineer from Five Nines Technology Group, who provide IT support for SNCC, noticed that the existing air-conditioning equipment was struggling to keep the room sufficiently cool.

"We noticed that on warm days, the closet was way too hot and we were seeing high temperatures at the point of air intake on the IT equipment. The closet has an open layout and, as a result, there was no form of controlled airflow management. At times we were observing temperatures in excess of 80°F and this was becoming an increasing worry to us. We knew we needed to do something about it," Michi stated.

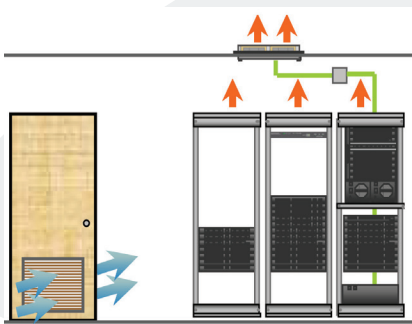
The center discussed their concerns with Five Nines. The risk of the closet overheating could impact both the work environment and the projected life expectancy of the IT equipment. At the same time, due to the lack of controlled airflow management, it was likely that the existing cooling costs were more than necessary. The agreed goal was to ensure the closet was kept at a controlled temperature so as to mitigate these risks.

THE PROBLEM:

Initially, Five Nines approached the existing air conditioning manufacturer to determine the cost of an additional a/c unit but the pricing seemed high. So they contacted Geist and talked through the issues they were experiencing. The agreed objectives were to find a solution that supplemented the a/c unit already in place, could be easily installed in the available space and encompassed monitoring capabilities – with a cost-effective price tag.

THE SOLUTION:

The decision was made to install the Geist Cool ClosetAir™ system. The unit was installed into the drop ceiling behind the server racks with the objective of evacuating the hot server exhaust and solving the overheating issue. Due to the open plan layout of the room and the lack of existing containment, hot air was still able to recirculate around the room and back to the air intake of the IT equipment. The remedy to this was to install containment curtains around the back of the server racks, effectively completely separating the hot server exhaust and cool air supply into the room. This meant that the ClosetAir unit was then able to remove the contained hot air from the room.



ClosetAir™ Ceiling Mount

THE END RESULT:

The new solution is working well. The combination of the new containment and the ClosetAir means that there is controlled airflow management and cooling in the room.

“The temperature sensors are great. You can put them wherever you want to get an idea of the temperature in different areas of the space you are cooling. The web interface is also really good; the information provided is very helpful, especially the graphing and logging. We also monitor historical data to relate the rise in the room temperature to changes in the outside temperature,”

Nate Michi, Systems Engineer, Five Nines Technology, said.



Geist Cool ClosetAir™

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