



CASE STUDY

North Scott Community Schools

Industry: Institutional

Northwest Automation & Controls helps North Scott Community Schools modernize and integrate HVAC controls for 9 buildings in 5 cities

Fully-integrated system gives access to mechanical systems from any Internet-based location

The Customer Challenge

The 500,000 square feet of building space that make up the North Scott Community School district houses hundreds of students, teachers and professional staff.

As the Director of Operations, it's John Netwal's responsibility to make sure these people are as comfortable as possible when it comes to their heating, ventilation and air conditioning needs.

In July 2008, the equipment to monitor the district's HVAC system was old and outdated. Netwal and his maintenance staff were using Honeywell and Trane products from the late 1990s that were accessible from only one computer, using a fax dial-up modem.

"It was very difficult to adjust and manage the equipment with such a slow and outdated system," said Netwal. "The technology had also become obsolete, so there was no backup or support that we could rely on."

Netwal knew it was time to update the system and integrate the equipment to make it more manageable. He turned to Northwest Automation & Controls, an automation and controls company based in Davenport, Iowa.

The Northwest Automation & Controls Solution

As an automation and controls company that specializes in system integration, Northwest Automation & Controls was able to use its expertise to assess the existing equipment and develop a plan to establish a fully-integrated, Internet-based HVAC control system for the district's nine buildings.

"The existing workstation was outdated and did not allow for live access to the many remote campuses," said Rich Krogmann, general manager of Northwest Automation & Controls. "They also had connectivity issues, programming inconsistencies and workarounds that were preventing them from working as efficiently as possible."

A team of four Northwest engineers began the arduous task of replacing the outdated systems and integrating them so they would work seamlessly with each other.

They used Honeywell WEBs AX integration engines (JACES) to custom build the system to the district's specific needs. This included the installation of a system that would allow secure Internet-based access to all controlled HVAC systems, regardless of manufacturer or campus location.

Recognizing the value of this integrated approach, North Scott Community School district also requested the ability for the new system to control lighting and security. In response, Krogmann and his team used the Honeywell Webs open platform and modular design to provide an integrated system that will grow to meet the future needs of the district.

The Results

Using this approach, Northwest Automation & Controls developed a fully-integrated HVAC and DDC controls system that has enabled both maintenance and administration staff to monitor, schedule, and respond to the needs of the students and staff 24 hours a day from anywhere they have Internet access.

"The beauty of the system is that it takes all the different languages the equipment speaks and translates it into one common language that we can access over the Internet," said Netwal.

The system is also interfaced to an array of mechanical equipment manufacturer devices including boilers, air handlers, variable air volume boxes, variable volume terminals, pumps and a building alarm system.

It also features live alarming data that allows North Scott to address potential problems proactively, which helps reduce maintenance costs and increase efficiencies.

"Our system used to only be accessible from one location. Now anyone can access it from anywhere – at home, on a laptop or even on a rooftop. There are a lot of advantages to that," said Netwal. "Northwest has done a really good job in helping us solve our challenges and overcome the obstacles that resulted from our outdated equipment. They've really helped us pull all this together."

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