School District Increases Building Security and Safety

Harrisonville Schools uses access control and video surveillance products for more efficient and accurate security control.

EXECUTIVE SUMMARY
HARRISONVILLE SCHOOLS
• K-12 Education
• Harrisonville, Missouri
• 2600 students; 350 teachers and staff
CHALLENGE
• Protect people and property
• Encourage good behavior
• Increase administrative efficiency
NETWORK SOLUTION
• Connected video surveillance cameras to the Cisco network
• Deployed Cisco Video Surveillance Operations Manager for monitoring and camera control
• Deployed Cisco Physical Access Control solution to remotely lock and unlock doors according to a schedule or on demand
RESULTS
• Gained the ability to identify people in video images
• Enabled administrators to review archived video without assistance
• Helped ensure doors are locked and unlocked at appropriate times

Challenge

Located in suburban Harrisonville, Missouri, Harrisonville Schools consists of a high school, vocational school, middle school, and four elementary schools serving 2600 students. The district developed a comprehensive emergency plan to protect students, staff, and property; prevent incidents; and enable collaboration with first responders.

Harrisonville Schools' existing physical access control system and video surveillance systems were cumbersome to use and did not provide the capabilities that the district wanted. For example, a request to lock or unlock doors had to be entered into the physical access control system 24 hours ahead of time. "If a community group that rented a room requested that we unlock the exterior door today from 3:00 p.m. to 5:00 p.m., we could not comply," says David Vignery, director of technology, Harrisonville Schools. "Instead, we had to send someone to the building to manually unlock the door." And the district had no assurance that the people would remember to lock the door after the meeting, creating a safety risk. "We wanted the flexibility to make changes to the door schedule at any time," Vignery says.

Harrisonville Schools also wanted to improve its video surveillance system. The video quality was not good enough for administrators to identify students, and they were aware of this. What's more, viewing archived video was complicated. Only people on the technology staff had the skills, and they had walk to the server room where the DVR was stored.

"Parents in our district consistently identify physical safety and security as one of their top three concerns," Vignery says. "We decided to include advanced solutions in our school improvement plan."

Solution

Harrisonville Schools enhanced campus safety and administrative efficiency using Cisco® physical security solutions. "We have had an excellent experience with our Cisco network," Vignery says. "Cisco physical security solutions provide the quality and reliability that we need and enabled us to avoid time-consuming and expensive interoperability issues."

For assistance with planning and implementation, including advice on where to install the cameras, the district worked with Alexander Open Systems, a Cisco Certified Gold Partner. "District personnel were more comfortable funding the project knowing that we were working with an experienced partner," Vignery says. "Alexander Open Systems provided invaluable guidance, and the implementation went very well."

> "The biggest benefit of Cisco Physical Access Control is that we have confidence that doors are locked when they should be. Administrators no longer worry or have to go around and check individual doors."
> **—David Vignery, Director of Technology, Harrisonville Schools**

Video Surveillance

Alexander Open Systems connected the district's 115 existing analog video surveillance cameras, as well as 83 new digital cameras, to the district's existing Cisco network. The cameras cover hallways, entrances, gyms, and exterior of all 10 buildings. Wireless video surveillance cameras are mounted outside to monitor students walking between buildings. Cameras with pan-tilt-zoom (PTZ) controls are mounted at main building entrances, bus lanes, and the high school student parking lot.

Building administrators, technology department staff, and school safety officers in the high school and middle school can control the PTZ cameras and view real-time and archived video from any PC, using Cisco Video Surveillance Operations Manager. The district superintendent often views real-time video when the buses arrive in the morning to check for traffic control issues. Others schedule the system to display footage from hallways during passing periods.

Physical Access Controls

The technology department set up a master schedule to automatically lock and unlock doors. For example, the main entrance to the elementary schools opens each morning at 7:15 a.m. and locks at the end of the school day. The exterior door between the high school building and vocational building opens for seven minutes in between periods and then automatically locks. This schedule increases campus security compared to before, when the door remained unlocked during the entire school day. Teachers and administrators who need to enter the building when the doors are locked can do so by swiping their access cards. The Cisco Physical Access Control solution logs all card swipes, creating a helpful record for investigations.

"The Cisco Physical Access Control solution lets us add doors one or two at a time, instead of having to buy a control panel for a large group of doors," Vignery says. "This is helpful because we can add doors gradually, when we have the budget."

Harrisonville Schools also uses video surveillance in conjunction with access controls. Each day, a technology department staff member checks a report to see if anyone has been denied access to a door. If so, the staffer reviews the associated video. This alerts the staff to unauthorized badge use.

> "Cisco Video Surveillance Manager is easy for our administrators to use. We can train them to control the PTZ cameras, view video archives, and take a snapshot in just 30 minutes. They can now investigate safety incidents on their own, which has freed up the technology department to focus on strategic projects."
> **—David Vignery, Director of Technology, Harrisonville Schools**

Results

Improved Video Quality for Investigating Incidents and Encouraging Good Behavior

If an incident occurs in the high school parking lot or in the hallways during passing periods, school safety officers and administrators can look at the archives to see the incident and the events leading up to it. The new digital video cameras provide the quality needed to identify students involved in incidents and even read lettering on signs. "Video lets us fill in the missing parts of a story," says Vignery. Now that faces can be identified, the district also expects video surveillance to act as a deterrent to undesirable behavior like unsafe driving in the parking lot and physical altercations in hallways.

Even the quality of the old analog video cameras is better. "Transmitting analog video over the Cisco IP network has increased clarity by 35 percent," Vignery says.

Simplified Retrieval of Archived Video

The technology department no longer needs to be involved in retrieving video if an incident occurs. Now any authorized teacher or administrator can view video anytime, from any location. "Cisco Video Surveillance Manager is easy for our administrators to use," Vignery says. "We can train them to control the PTZ cameras, view video archives, and take a snapshot in just 30 minutes. They can now investigate safety incidents on their own, which has freed up the technology department to focus on strategic projects."

Increased Building Security

Harrisonville can now automatically enforce policies stating when doors should be locked or unlocked. Administrators can lock down all doors in a building or the entire school with a single click. If someone schedules a meeting for the same day, building administrators or the technology staff only need a few minutes' notice to schedule the door to be unlocked and locked. "The biggest benefit of Cisco Physical Access Control is that we have confidence that doors are locked when they should be," Vignery says. "Administrators no longer worry or have to go around and check individual doors. And they like knowing that they can quickly lock down the entire building."

Next Steps

Harrisonville is considering using its Cisco network as the platform for additional physical safety applications:

PRODUCT LIST

Routing and Switching
- Cisco Catalyst® 3750 and 3560 Series Switches

Physical Safety and Security
- Cisco Physical Access Gateway
- Cisco Physical Access Manager
- Cisco Video Surveillance Operations Manager
- Cisco Video Surveillance Media Server

Security
- Cisco 5510 Adaptive Security Appliances

Unified Communications
- Cisco Unified Communications Manager

Wireless
- Cisco Aironet® 1242 Wireless Access Points

- **Mass notification during emergencies:** The district can use its existing network with Cisco Digital Media System to send emergency notifications to digital signs.

- **Collaboration with local first responders:** Harrisonville Schools plans to give the local police and fire departments access to Cisco Video Surveillance Operations Manager. If a fire alarm goes off, for example, first responders can quickly view real-time video to plan an appropriate response.

- **More convenient visitor access:** One plan is that parents of elementary school students will just push a button on a Cisco Unified IP phone mounted near the door to contact someone in the office. The staff member will check the video feed to verify the parent's identity and then just press a button on an IP phone to unlock the door.

- **Cisco Video Surveillance IP Cameras:** These high-definition cameras will be useful at sporting events because of their long range of vision.

For More Information

To find out more about Cisco physical safety and security products, go to: www.cisco.com/go/physicalsecurity

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