

IP video evidence points to the real culprit. Green Bay Area Public School District adds Axis cameras to its investigative toolbox.



Organization:
Green Bay Area Public
School District

Location:
Green Bay, WI, USA

Industry segment:
Education

Application:
Safety and security,
forensic investigation

Axis partners:
SimplexGrinnell, Martin
Security Systems, Video
Insight

Mission

After a dozen years of operation, the analog CCTV system used by Green Bay Area Public School District had far exceeded its useful life. The district felt an IP-based solution would provide greater flexibility to centrally manage higher-resolution cameras while giving each school the autonomy to view its own video. The administration wanted a system that could take advantage of its existing WAN as well as deliver HDTV video to aid in the investigation of incidents.

Solution

SimplexGrinnell, a fire, life-safety and integrated security provider and national systems integrator in the Axis channel partner program, designed an IP-based solution to deliver the image clarity and management flexibility the district needed. They subcontracted installation to Martin Security Systems, another Axis partner and certified installer of custom security systems.

The team installed 556 Axis high-definition, fixed dome IP cameras controlled by a Video Insight Video Management System specially tailored for school security. Intuitive map and floor plan navigation let administrators view video from anywhere anytime, and the district's security department can adjust camera parameters remotely, avoiding the cost and delay of onsite service calls.

Result

Because the Axis cameras leverage HDTV, they provide much broader coverage than even the legacy analog PTZs. Administrators can forensically zoom in on archived images to extract greater detail than ever before. In the case of an attempted break-in, even though the perpetrator's face was never captured on video, police were able to apprehend him because his clothing, backpack and gait were clearly recognizable on video.



Safely under a big umbrella

With 38 primary and secondary schools spread across 92 square miles, Green Bay Area Public School District is the fourth largest school district in the state of Wisconsin. If you graded the analog CCTV system's ability to protect the district's 21,000 students, the 12-year-old technology was flunking out.

"It was actually beyond end of lifecycle," says Allen Behnke, director of safety, security and telecom for the school district. "We definitely needed to do an upgrade."

Behnke decided to scrap the old system and start anew, reasoning that the advances in digital technology would easily justify the investment – not only in superior image quality but ease of use and remote maintenance.

"Being able to intelligently search the video from the end-user's desktop is huge for us," explains Behnke. Under their legacy system, users could spend days in the server room searching through recordings.

Remote maintenance was another plus. "With our old system, we had to physically go right to the camera to do any adjustments," recalls Behnke. "But with the Axis cameras residing on the network, we can log into the system and troubleshoot, refocus and adjust camera parameters remotely. We can pretty much put a camera in place and never physically touch it again."

Given the sheer number of cameras, reliability was another key factor. "We've worked with lots of camera manufacturers, but highly recommend Axis because we hardly ever have them coming back because of issues," Scott Nielson, electronic solutions sales rep for SimplexGrinnell. "In addition, the Axis cameras selected for the installation come with a three-year warranty, which is uncommon for surveillance cameras."

Providing a better class of coverage

While the legacy system included a mix of pan/tilt/zoom (PTZ) and fixed analog cameras, SimplexGrinnell calculated that replacing them with megapixel and HDTV-

quality AXIS P3344 and AXIS P3367-VE Fixed Dome Network Cameras would deliver greater coverage.

"The fixed IP cameras are a better deterrent because if you're up to some mischief you can't tell in which direction they're pointing," states Michael Martin, President of Martin Security Systems, the Axis partner subcontracted by SimplexGrinnell to complete the install. "Plus you avoid the problem of the cameras being pointed in one direction while the real event is happening in the opposite direction."

SimplexGrinnell designed a system based on outdoor-ready and vandal-resistant AXIS P3367-VE Network Cameras on building exteriors and in parking lots. These 5MP / 1080p HDTV cameras include an automatic day/night feature and tampering alarms that enable them to provide uncompromising, around-the-clock coverage. For interior locations, SimplexGrinnell selected 720p HDTV AXIS P3344-V network cameras to monitor hallways and common areas.

Almost all the cameras are connected to the district's network via Cat5/6 cabling, except for locations such as the back end of a parking lot where the system was augmented with a wireless network to avoid the expense of trenching a fiber line to the site.

Behnke especially appreciates the low-profile footprint of the outdoor cameras, which makes their presence far less obtrusive. But for SimplexGrinnell and Martin Security, the real appeals are the high-to-low temperature thresholds and the auto-iris controls of the Axis cameras, which easily handle the extreme sun glare off ice and snow typical of Wisconsin winters.



Controlling video access

Because the district opted for a distributed storage configuration, Behnke's team takes the utmost care to keep the video archives secure. Leveraging the video management system's directory feature from Video Insight, Behnke strictly limits principals, associate principals and school resource officers to live and archived viewing of their respective campuses. In case of emergency, local police are granted similar controlled access. If someone needs a copy of a particular clip, they can only request it through Behnke's department.

"For our own protection and the privacy of our students, we limit the number of people who can export video," shares Behnke. "It only takes a matter of seconds for something to go viral and create havoc with our district's reputation, so we restrict that feature to our security technicians only."

Telling tales out of school

Though the cameras are primarily used for forensic investigation, administrators can also monitor the cameras live from their office desktops or mobile devices as they walk the corridors. "Because we have secure login credentials to WiFi throughout the district, principals, associate principals and school resource officers don't have to be chained to their desks to see what's going on in another part of the building," explains Behnke. Both the wireless connection and video streams also have the highest level of logical security built in, such as HTTPS encryption, IP filtering and IEEE 802.1x.

As an experienced user of the new IP system, Curt Julian, associate principal of East High School, finds that having video evidence to support an investigation helps determine the true nature of events. In one case, the video revealed that a student had been wrongly accused of pulling a fire alarm. The real culprit turned out to be a staff member feeling around for the light switch in a dark gym.

In another case, a student was suspected of stealing a beverage from the cafeteria. The archives revealed that the student had been stealing bottles every day for more than a month before being caught.

In a more serious incident, more than 50 students were present during a fight. Witness statements conflicted as to who were participants and who were simply bystanders. Because the incident would likely lead to expulsion hearings, it was imperative to establish the true facts.

"The video evidence allowed us to corroborate statements and weed out the truth from the misperceptions," asserts Julian. "Without the footage, we'd never have broken the code of silence. We learned that the fight stemmed from a verbal confrontation that took place days earlier. We searched the video archives and were able to document which students were involved from the start."

"We may not be quite CSI caliber," shares Allen Behnke, "but the speed at which we can search and retrieve video and the quality of images we get is just phenomenal."

"We try to use the Axis cameras as corroborative tools rather than the sole source of evidence. But there have been times that the cameras were the only way to determine the true nature of an event."

Curt Julian, Associate Principal of East High School, Green Bay Area Public School District.



About Axis Communications

As the market leader in network video, Axis is leading the way to a smarter, safer, more secure world — driving the shift from analog to digital video surveillance. Offering network video solutions for professional installations, Axis' products and solutions are based on an innovative, open technology platform.

Axis has more than 1,400 dedicated employees in 40 locations around the world and cooperates with partners covering 179 countries. Founded in 1984, Axis is a Sweden-based IT company listed on NASDAQ OMX Stockholm under the ticker AXIS. For more information about Axis, please visit our website www.axis.com