Investigative video.
Dare County Schools fight multi-campus crime.

Organization:
Dare County Schools

Location:
Outer Banks, North Carolina, USA

Industry segment:
Education

Application:
School safety and security

Axis Partner:
CDW

Mission

After repeated break-ins at one of its secondary schools and a rash of petty thefts and vandalism at several others, Dare County Schools in North Carolina's Outer Banks decided it was time to install network cameras inside its buildings. Though they already had analog cameras monitoring school exteriors, the district wanted to move away from its VHS recording system to an automated digital solution that would operate over the existing fiber network and allow administrators to view and manipulate cameras remotely.

Solution

Carl Woody, network engineer for the Dare County Schools, bought an array of Axis network cameras, video management software and video encoders from Axis partner CDW and spent a month deploying the solution in eight of the district's 11 elementary, middle and high schools. The principals and authorized staff at each school can monitor the network cameras in their own buildings. Woody configured the system so that he, the Superintendent of Schools and a few other district individuals have remote access to all the network cameras throughout the school district.

Result

The network video system has already helped police apprehend and prosecute the thief responsible for repeated break-ins at the Cape Hatteras Secondary School. Though the video is rarely monitored live, each middle and high school in the district has its own Safety/Security Resource Officer who may opt to view live feeds from the network cameras should a situation arise.

Leveraging existing infrastructure

Woody was able to keep the cost of installation down by piggybacking the network video solution on the district's existing one-gigabyte fiber cable network. With inline power switches already in place, he easily integrated the Axis network cameras and video encoders by simply pulling the wires through the conduit.

AXIS COMMUNICATIONS

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"At each school, it only took about a day to pull the wires and then half a day to mount the cameras," reported Woody. Since the district already had a mixed array of analog cameras in place that it wanted to continue using, Woody attached them to an Axis video encoder to incorporate their video feeds into the network video solution.

Deploying a high-tech hall monitor

Woody deployed between six and 15 cameras at each school, depending on the size of the building. He installed AXIS Camera Station client software on the desktops of the principals and authorized staff members at each school, giving them the ability to view all the cameras in their respective schools. Using a joystick, they can click on a particular view and zoom in on an area or change the field of view. To ensure that the cameras get repositioned to their optimum setting, Woody programmed each camera to reset after 45 seconds.

Before launching the major surveillance initiative, Dare County installed drop-ceiling-mounted AXIS 206 and AXIS 210 Network Cameras in a few schools to cover their hallways. AXIS 210A Network Cameras were also deployed to cover stairwells and hallways at several schools. Once the main initiative was underway, Woody decided to mount AXIS 212 PTZ Network Cameras on the walls at opposite ends of school halls and leverage their pan/tilt/zoom capabilities to ensure complete coverage of the area.

Keeping an eye on the bottom line

Because the Axis cameras are equipped with a motion-sensing feature, they only record when they detect an event, rather than capturing and storing large amounts of continuous video. Even so, as the schools increased their archiving from 10 to 30 days, Woody was able to easily expand storage capacity by using affordable, commercial off-the-shelf hardware.

Each school also has an AXIS 240Q Video Encoder that integrates the video feed from both the network cameras in the hallways and the outdoor analog cameras that point to the school entrances, parking lots and play areas.

The unified network video solution has proved a definite time saver for Woody. "I no longer have to travel to a school to figure out which camera captured the incident," he explained. "I can do everything remotely which also saves the district my mileage expense."

Being proactive about threats, thefts and vandalism

Given the events of Columbine, Dare County pays much closer attention these days to graffiti messages perceived as threats to the student body or any student in particular. Woody says that school officials are gratified that the Axis network video system can be used to identify groups of students entering lavatories and hallways around the time when a questionable message is written on a wall or in a bathroom stall. The video has already helped administrators at the Kitty Hawk Elementary School determine that a false alarm was set off accidentally rather than as a deliberate act of mischief. It also helped the police apprehend the thief responsible for repeated break-ins at the Cape Hatteras Secondary School.

Covering all the bases

The network video system has already proved to be an invaluable tool for training first responders in a crisis. "Once the cameras were in place, the district used them at Manteo Middle School to record the Sheriff Department's SWAT teams doing their response drills for securing a school during an armed intrusion," shared Woody. "The team reviewed the video, critiquing their actions and identifying weaknesses that needed to be addressed."

Due to its overwhelming success to date, Woody said the district plans to extend network video coverage to the athletic fields at one of its high schools. The initiative will involve Axis PTZ and fixed dome indoor/outdoor cameras with optical zoom capabilities perhaps as high as 35x and 50x respectively to cover the press boxes, bleachers and fields. "Athletic events raise a number of security and safety issues. In the event that rivalry spills over from the field to the bleachers, with a higher optical zoom, we'll be able to see everything that transpires and even do license plate recognition in the parking lots," predicted Woody.