Changing the framework for school security with Axis.

Bonneville Joint School District sets new standards for school safety and conflict mitigation with hundreds of HDTV-resolution Axis network cameras and video encoders.

Organization:
Bonneville Joint School District No. 93

Location:
Idaho Falls, Idaho, USA

Industry segment:
Education

Application:
Student safety, remote monitoring

Axis partners:
AlphaCorp,
Exacq Technologies

Mission

When the new Director of Safety Operations and Facilities took over the position from his predecessor, he immediately put a plan in place to upgrade surveillance cameras throughout the Bonneville Joint School District No. 93 in Idaho Falls. He was looking for a reliable IP-based solution that would provide far sharper images than the district's legacy analog cameras and be easier to access both centrally and within individual schools.

Solution

With the help of AlphaCorp, a Utah-based security systems integrator, and the school district's own team of network technicians, Bonneville began deploying a variety of Axis HDTV and megapixel resolution network cameras throughout its 21 schools. In several schools where legacy cameras were slated for replacement at a later date, the existing technology was network-enabled through Axis video encoders.

The entire system is managed through an ExacqVision video management system (VMS). Authorized users – school administrators, resource officers and school district officials – can view their respective school's cameras live on their desktops and mobile devices as well as review video archived on the district's central server farm.

Result

In addition to greater image usability, the Axis cameras offer a range of programmable options to improve coverage and optimize bandwidth consumption. For instance, the outdoor cameras are set on guard tour of school entrances, sidewalks and parking lots to ensure continuous coverage of important high-risk areas. Advanced H.264 compression technology reduces demands on network bandwidth and server storage. Another key feature allows the Axis cameras to record on meaningful motion by masking out extraneous movement in the field of view such bushes blowing in the wind.

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Improving forensic value

21 elementary, middle and high schools comprise Bonneville Joint School District No. 93 making it the sixth largest school district in Idaho. With a student population of nearly 12,000 it was important to the district that it provide school administrators with the best possible tools to investigate incidents ranging from theft and bullying to accidents, vandalism and use of illegal drugs on campus.

"As a former high school principal in the district, I spent a lot of time in front of our analog cameras trying to solve issues," said John Pymm, Director of Safety Operations and Facilities for Bonneville Joint School District No. 93. "The image quality was so poor that you had to struggle to figure out what you were seeing." The problem was compounded by an antiquated operating system and unwieldy, unreliable DVRs that had to be stored and maintained at each school.

When the security integrators at AlphaCorp introduced Pymm to the high-definition Axis network cameras and ExacqVision VMS, he knew he found the solution for his school district. The cameras were known for their reliability, and the broad portfolio of models meant Bonneville could choose features that addressed the surveillance needs of each school.

Inside of the schools, the district chose cameras based on mounting conditions and field of view concerns. AXIS 3005-V Fixed Mini-Dome Network Cameras fit in tight mounting locations while AXIS M3006-V Fixed Mini-Dome Network Cameras provide wide-angle views and digital PTZ capabilities.

"We used the AXIS Design Tool to help Pymm visualize the best fits," said Steve Deal from AlphaCorp. "With the floor plans, we colorized each prospective camera's field of view to show him the depth of coverage at each spot. It helped us justify the camera count and models our engineers specified."

Additionally, AXIS M3007-P Fixed Mini-Dome Network Cameras provide double and quad panoramic views of more open areas whereas AXIS P3354 Network Cameras have Lightfinder technology.

For exterior surveillance, the district specified Axis camera models with a valuable set of features for the outdoor environment. They implemented AXIS P1357-E Network Cameras with five-megapixel resolution along with AXIS P5414-E PTZ Network Cameras. With those, AXIS P3364-LV Fixed Dome Network Cameras were installed as they work well in low lighting with IR illumination at HDTV-resolution.

While most of Axis cameras are hard-wired to the district's network, exterior cameras mounted on light poles connect to the system using a wireless bridge. "We use those cameras primarily for capturing the license plates of vehicles entering and leaving our parking lots," said Andrew Bodily, Senior LAN Technician for Bonneville Joint School District No. 93. In case of incident, the district has these on record as a tool to figure out who was on the property at any given time.

To network-enable any legacy analog cameras waiting for replacement, AlphaCorp installed AXIS M7016 Video Encoders. These provide a cost-effective solution to help the district in leveraging existing investments while continuing to build out their system.

From bullying to missing packages

Needs assessments dictated the number of cameras required at each school. Typically, elementary schools warranted about 30 cameras, middle schools around 60 and high schools 80 or more cameras. "The high schools definitely have more problem areas than the lower grades," said Pymm. "We need to watch the lockers to deter theft or catch someone putting something inappropriate in them. High school parking lots are another big area of concern because that's where incidents like drug deals and fights occur."

In addition to protecting students, faculty and staff, the Axis cameras have also helped the district track down missing deliveries. Bodily recalls an incident where one of the warehouse drivers insisted he had delivered a carton of iPads to a school one morning, but the video showed that he had not even stopped by that day. "It was a pretty expensive package to lose," said Bodily. "So we searched video from other district schools in that timeframe and discovered that he had mistakenly dropped it off at a different school."

The video provides great forensic value for investigations and often serves as a general deterrent for misbehavior. "When a principal sits down with a student and talks about bullying, for example," said John Pymm, "he can give a gentle reminder that the cameras are watching. It's great for helping us promote good behavior."

About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the global market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform - delivering high value to customers through a global partner network. Axis has long-term relationships with partners and provides them with knowledge and ground-breaking network products in existing and new markets.

Axis has more than 2,000 dedicated employees in more than 40 countries around the world, supported by a network of over 75,000 partners across 179 countries. Founded in 1984, Axis is a Sweden-based company listed on NASDAQ Stockholm under the ticker AXIS.

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