

# ACCESS CONTROL & SECURITY SYSTEMS

USING TECHNOLOGY TO PROTECT PEOPLE, FACILITIES AND ASSETS

By Erin Semple

**LEBANON HIGH SCHOOL** in Oregon has split into four campuses, with video technology tying them all together

## Divide and Monitor

Above and below: CCTV camera systems from Axis Communications keep watch over the Lebanon campuses. The system allows for Web-based monitoring.



**L**ebanon High School is home to 1,380 students in Lebanon, Ore. — a bedroom community to nearby Corvallis and Albany. Although the school is nestled in a semi-rural area, it experiences the same problems that plague larger, inner-city schools. The school reports high absenteeism and dropout rates, bullying and petty theft, and students struggle to maintain average test scores. Following several incidents, the school established a behavior tracking and modification program that includes zero tolerance for dangerous behavior.

Recently, the school reinvented itself as a complex of four smaller learning academies. These communities have helped transform Lebanon High School into a safer, more inviting learning environment. Each community specializes in a different academic area: living systems, physical systems, social systems and information systems. Students choose an academy and stay with the same group of colleagues and teachers until graduation. "The smaller schools have less anonymity, and so fewer students slip between the cracks," says Brian Bray, director of technology services for the district. "We use video technology to further support accountability."

The building renovation included an off-the-shelf scalable surveillance camera system from Axis Communications, Chelmsford, Mass., to ensure safety in the buildings, parking lots and surrounding streets. The Axis network installation consists of 42 cameras and can be expanded to 48. The cameras are located in eight district school buildings, with 25 of them serving the high school. "Cameras are an important part of making the high school a secure place," says Rick Thomas, the network analyst who led the installation project. Most of the 25 cameras are in hallways, while a few cover outdoor areas of the campuses.

The Lebanon County school district consists of 4,500 students and 500 employees; it includes one high school, one middle school and six elementary grade buildings.

Lebanon partnered with CDW Government Inc. (CDW-G), Vernon Hills, Ill., the government and education subsidiary of consulting firm CDW Corp., to select a cost-effective system that would help modify the school culture and break the cycle of bad student behavior. The solution CDW-G provided allows technicians to find, capture and save a video clip very quickly. The system communicates through an IP network.

"It was important for the technology

to be flexible and standards-based, in case the school needed to expand or enhance the system," Bray says.

Users with a password can access the system from any computer in the district. Floor plans on a Web page include icons to click which then open a view from the camera in that location. "Our school resource officer has arrested 70 students during the course of the year," Bray says. "The system allows us to backtrack to the time of the incident, place the guilty party there and provide powerful evidence."

The system was installed last summer. The cameras record only when there is motion and collect the images in a database. A clip can be pulled up by location, date and time. "All digital information is recorded on the server and can be burned to a disk to hand to the police or can be sent as an e-mail attachment," Thomas says. "If there ever was an emergency lockdown, administration and authorities could look at locations throughout the school from wherever they happened to be."

Each server can handle 16 cameras at a time. Like the district's other security,

communications and data systems, the cameras plug into the existing high-speed data network. A camera can be added anywhere that a data wire can be run.

Video content from the security system or other video sources can be broadcast on the Internet through an arrangement with yourschoolevents.com. This will be used to display graduation and eventually concerts, sports and other events.

#### Controlling access

Around two years ago, the district installed an electronic access control and security system in all buildings. It includes card scanners, motion detectors and other burglar alarm features. The card system was installed by Entrance Controls Inc., Vancouver, Wash., and was manufactured by AMAG Technology, Torrance, Calif. Like the camera system, all stations use the standard data communication system to feed security information back to a centralized server. A facilities services department worker operates and monitors the system as needed. All district employees are issued a scan card that includes

picture ID. The system logs door openings, showing who was where and when they were there.

Based on the employee's security level, their codes will allow them into certain areas in the district at certain times.

Bray says that the card system is being expanded to the tennis courts to open gates and turn on lights. For this use, cards will be available to the public.

Each classroom also has a digital telephone, which has a voicemail system, allowing teachers to leave homework assignments on the voicemail for students to check. The phones can dial another classroom in the district and send an overhead page.

"The integration of computer networks, telephones, security, intercoms, building controls and even specialized equipment like readerboards is something that we can't afford not to do," Bray says.

Because of the systems, except for the one policeman who works at the high school, security staff is not required. "This system makes all of us security staff," Bray says.



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