CCTV Lowers the Stakes

Patrolling the grounds of a newly constructed golf course at Turning Stone Casino and Resorts in Upstate New York, a security guard noticed an unlocked door on one of the secured buildings. Unable to quickly determine the cause for the unlocked door and believing someone had broken in, the security guard contacted the police, who started an investigation.

When Director of Security Douglas Ostrander was called about the incident, he asked his IT department to pull up the digital CCTV coverage of the area from the company's server. After reviewing the video, Ostrander determined that a contractor with access to the building had left a key under a doormat so that an electrician could access the site after hours.

The electrician had used the key to unlock the door and had put the key back under the mat, but he had not relocked the door. Although the electrician was performing legitimate work and was not accessing the site for criminal reasons, the unlocked door and the rogue key created a security vulnerability: anyone could have entered the building without having authorization.

Ostrander e-mailed the video to the police, who subsequently dropped the investigation. Ostrander also showed the clip to the contractor, and let him know that the key must never be left under the doormat again.

The CCTV cameras on the golf course are part of a larger system of networked cameras installed by the casino during a $308 million expansion, which included the addition of a 5,000-seat event center, a 19-story hotel, a separate 98-room all-suite lodge and accompanying parking garage, a winter garden, and two championship golf courses. Since the expansion began over a year ago, more than 200 digital stationary and pan, tilt, and zoom cameras have been integrated with an existing 500 camera analog system.

When the expansion began, the casino was outgrowing the matrix switcher used by the analog system. Matrix switchers are used in large analog CCTV systems to allow any camera to be displayed on any monitor or recorder. Virtual matrix switching, found in digital systems, allows users to drag, point, and click to connect cameras, monitors, and recorders.

Replacing the switcher would have been extremely expensive, so the company decided that the most cost-effective answer was to implement a digital solution. "We really saved a lot of money by going to the digital solution," says Enterprise Computing Manager Jason Tedford.

The company did not make the change all at once, however. According to Tedford, "Rather than rip and replace we decided to phase that technology out over time."

The company evaluated several products, says Tedford. It ultimately chose cameras manufactured by Axis Communications because they were competitively priced and because the cameras were "open-minded" from an IT standpoint and allowed the department to configure the system to its liking. According to Tedford, other products that were considered required proprietary equipment, including networking software.

The specific products that were chosen were the 2130 PTZ and the 211 Power over Ethernet (PoE) network cameras.

The 2130 PTZ was the first model installed and was used to monitor the construction and redesign of the casino's computer room. The camera has pan, tilt, and zoom capabilities, and the casino personnel can control the camera movement live over a local area network or the Internet.

Cameras on the recently completed Atunyote Golf Club are part of a system installed during a $308 million expansion at Turning Stone Casino and Resorts.

During the expansion, demands on the security department were high, and there were not enough security personnel to monitor the computer room around the clock, explains Tedford. Strategically placing cameras around the construction site allowed security to monitor activity without placing further demands on the staff.

The 211 PoE cameras are in the installation phase, and Tedford says the casino anticipates eventually moving the cameras to be 802.11 (a wireless standard) PoE compliant, which will allow IT to run a SQL system straight to the camera, avoiding unnecessary wiring that would be needed if the

The security department at Turning Stone can now focus attention on high-traffic areas, such as the poker room.

cameras were hard-wired to the network. "I think long term, everything will be replaced by the digital system," he says. He estimates that the replacement of the analog system will take less than five years.

The existing cameras are monitored around the clock, and unlike the old system, the digital system is programmed to begin recording when motion is detected.

Ostrander says that this has been a huge improvement for his security department. Officers are no longer overwhelmed by monitoring remote areas with little traffic, such as stairwells. They can now focus attention on high traffic areas. Tedford adds that recording only when motion is detected also uses less server space and, as a result, resources are being better used.

Making the system work required cooperation from the IT personnel. "We're totally dependent upon the IT system as the backbone of this operation," says Ostrander.

Fortunately, that cooperation was already established at the company. Security staff and IT staff work closely at Turning Point—a marriage Ostrander credits with improving his department's access to cutting-edge technology. Working with Tedford's staff to support the backend, Ostrander says there have been few problems with the integration.

Because installing the cameras required integration of several systems, the process was fairly labor intensive for the IT department. System Engineer Jeff McGowan says the cameras use a Lenel system as the network video recorder and also use a Lenel product to coordinate the cameras with each other. They also use IBM hardware and run a SQL server for Lenel systems. Each recorder is also an IBM server with 645 gigabytes of disk storage.

Ostrander says he appreciates the flexibility and versatility of the digital cameras and the ease of remote access. He says that the system has been fairly easy to operate. "Our people have been trained to use the analog system along with the digital, and they adapted very well," he says.

Despite the improvements that the new digital system has brought, Ostrander admits there have been a few issues that needed to be addressed. For example, Ostrander wanted to operate the PTZ on the cameras using a joystick. The current system operates using controls on the screen. He says he is working with the IT department to incorporate the joystick.

Another minor problem the casino has had with the Axis cameras is that in some dusty construction areas, the cameras have problems autofocusing. It may be that dust has accumulated on the camera lens, causing the camera to focus on the dust rather than on the monitored area.

The casino is working with Axis to fix this problem, and Tedford says he is confident that it can be fixed with little or no interruption of service. Currently the staff removes the dust using a feather duster.

Tedford says that overall he has been very pleased with the cameras and anticipates purchasing more to accommodate the expanding facility.

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—By Marta Roberts, staff editor at Security Management