INSTALLATION CASE STUDY

# ADELPHI UNIVERSITY FOUNDED IN 1896

University Gets Video Education

When Long Island's oldest institution of higher learning sought security for its expanding campus it chose a thoroughly modern solution. In a textbook story of how to effectively partner with your client, integrator Idesco teaches Adelphi University the wonders of IP-based video surveillance.

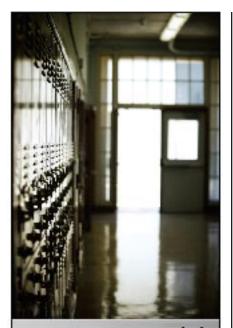
BY SCOTT GOLDFINE

#### hen stepping up to large commercial/indus-

trial projects it becomes much more than just being a security provider — it is about being a complete partner. While that may seem a bit cliché, it really is true, never more so than today when systems are evermore complex and necessitate working more closely with clients' security, IT and facility personnel. Idesco's recent IP video installation at Adelphi uilly illustrates this demonsio

University in Long Island, N.Y., vividly illustrates this dynamic.

This particular project flies in the face of prevailing economic trends as it combines the most in-demand new security technology with one of the hottest markets — educational institutions. Not so coincidentally, those also happen to be two specialties of Idesco, a New York-based systems integrator that opened its doors more than 65 years ago. As Integration Engineer Greig Silver explains, a lot was riding on the Adelphi job.



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# ADELPHI UNIVERSITY: A STUDY IN IP VIDEO



Although the security system is spread across Adelphi's 75-acre campus, Officer Gerard Lennon in the public safety booth is only a mouse click from control of any camera.

"This was a first entry for Adelphi into IP systems," he says. "They are being carefully watched by sister institutions across Long Island that will be judging this new technology based on Adelphi's experiences and satisfaction. That put a great deal of pressure on us to get it right."

Having built a new sports complex and in the process of further expansion, Adelphi's stakeholders planned to phase out an existing DVR-based system and bring all cameras into central storage over the campus' network. Although the school's roots trace back to 1863 and its campus is nestled in peaceful surroundings, officials sought the latest in high-tech security and the other benefits it can bring.

"Adelphi University's Garden City campus remains one of the safest campuses in the country," says Gene Palma, Adelphi's executive director of Public Safety and Transportation. "The university has always been proactive in implementing the latest security technology to better serve the university community in the event of an unfortunate incident. These systems are useful for crowd management, maintaining the security of our buildings and extending the reach of our staff."

The project — which included the 75acre campus' performing arts center, early childhood learning center, parking facility and soccer field — had to be done unobtrusively and aesthetically to maintain the decorum befitting an institute of higher learning. Universities also have the built-in challenges of contending with faculty, staff, students, vendors and visitors. To meet its client's needs, Idesco teamed up with several leading suppliers and subcontractor Com Bell to de ploy a solution featuring more than 50 IP cameras.

#### **NETWORKING HELPS GET NETWORK JOB**

As a third-generation family operated business that began as an ID card supplier, Idesco has spent six decades building a highly respected track record. But it was someone on the inside who provided the inside line on the Adelphi project. The integrator had developed a strong relationship with New York University (NYU) after completing several dozen projects incorporating video, access control, ID management and alarms throughout its widespread campus. When one of Idesco's main contacts at NYU left and became involved with the new construction at Adelphi, he invited one of his favorite integrators to participate in the bidding process.

"Knowing that the new technologies we planned to deploy required specific expertise he [Adelphi Associate Director of Public Safety and Transportation Robert Hughes] invited Idesco to join the mix of vendors proposing systems and solutions for our projects," says Palma. "He had worked extensively with Idesco during his tenure at NYU, and knew they were capable of supplying the systems needed and meeting the tight deadlines involved."



For Adelphi University's concert hall, located in its new Performing Arts Center, Idesco customized the housing for an Axis 233D dome camera to help keep security unobtrusive.



A campus-wide security solution at Adelphi University encompasses the Performing Arts Center, viewed from the stands of a nearby athletic field.

Along with other potential vendors, Idesco submitted its bid and worked with Adelphi on revisions to fine-tune the requirements, meet budget goals and build in future-proofing. It quickly became clear that it would be a very collaborative effort given Adelphi's level of security sophistication. The university's existing lifesafety and security systems included card access, ID management, fire alarms, panic and duress alarms, emergency call boxes, and emergency notification.

"They knew the kind of coverage they needed, and relied on us to guide them in using newer technologies to achieve their goals," says Silver. "We managed to meet their needs in sheer camera numbers, improve on the quality of video for both live monitoring and recordings, and supply a head-end with significant room for growth and expansion at a competitive price."

An additional factor working in Idesco's favor was that it shared a common relationship with Com Bell. "We have relied on Com Bell for our network installations for several years, and discovering that Idesco had also worked with them on other projects was a definite plus," adds Palma.

Ultimately, Idesco's mutual professional associations, design expertise and responsiveness won Adelphi over and an agreement was finalized in January 2008.

The integrator was tasked with the challenge of coordinating with the general contractor's overall construction schedule to complete the project prior to classes starting in late August while hitting various targets along the way. This necessitated a delicate balancing of communication and planning to satisfy both Adelphi's and the GC's requirements.

"This meant we had to man the job as dictated by many other trades, rather than our own schedule," says Silver. "It meant periodic rushes as facilities became ready for our installations and prior to walls and ceilings closing, without delaying the overall construction. Between these rushes, we would work on the head-end fine-tuning frame rates and bandwidth usage, training the end user, and making the minor adjustments always required with a large installation."

Idesco officially got the project underway in late spring.

#### SUPPLIERS SOLIDIFY SOLUTION

An IP video solution made the most sense based on the factors already mentioned as well as the distances between buildings, large number of cameras being added and need to improve the campus' security capabilities. The camera brand of choice was Axis, with 26 IP indoor fixed mini domes, 13 outdoor fixed mini domes, eight pan/tilt/zoom (p/t/z) cameras and two 1.3 megapixel cameras being installed.

The Axis devices allowed Idesco to work with Adelphi's Office of Information Technology and Resources to route cameras to the recording hardware in the most efficient manner, without suffering the bottlenecks inherent in running coax to a DVR. These cameras could also be managed on an individual basis to accommodate variations in network availability, such as a temporary offsite facility set up while renovations were being done.

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#### ADELPHI UNIVERSITY: A STUDY IN IP VIDEO



(*I to r*) Jack Chan, CIO, Adelphi; Gene Palma, executive director public safety and transportation, Adelphi; Angelo Proto, vice president administration and student services, Adelphi; Andrew Schonzeit, president, Idesco; Greig Silver, integration engineer, Idesco; Robert Hughes, associate director, public safety and transportation, Adelphi.

"We were impressed with the power and quality of the Axis 233D p/t/z cameras in particular, and the quality of images from the Axis cameras in general," says Hughes. "With the IP system, being able to mange the recorded images using digital zoom and other features makes our use of the system more efficient and more productive."

OnSSI's NetDVMS IP network video recorder and camera management software suite was selected to serve as the "brains" of the solution. The video control platform gave the end user a single interface to the new system, enabling them to create and manage views as required. The interface brings images to a PC and large flat-screen monitor located in the Public Safety Booth where officers can quickly call up any camera or multiple of cameras.

"Being able to combine a large number of cameras on one large monitor, as opposed to smaller images on multiple monitors as with older systems, makes it faster and easier to zero-in on any area covered by the system using just a couple of mouse clicks," adds Hughes. "We have found this system much easier to manage than our DVR systems. Searching is much faster and much simpler. Archiving is taken care of au tomatically. And it also requires a much smaller footprint for the headend."

When it was determined some analog cameras would also be needed for the project, Idesco and Adelphi opted for Pelco Spectra® IV p/t/z domes. They were deployed in Adelphi's parking structure, which is topped by a stadium-sized lacrosse/soccer field, because the cable runs were too long for Cat-5e in that they exceeded the 100-meter maximum for data transmission. Idesco used a Nitek hub to run UTP cable to the cameras and Axis IP encoders to integrate them into the OnSSI system.

The system relies on Pivot3's Raige<sup>™</sup> storage array to safely and securely retain up to 12TB of video surveillance data. Among the other components included in the package were Bosch license plate capture cameras and Honeywell indoor/outdoor mini domes.

Silver gives tremendous credit to the equipment suppliers involved in the Adelphi project. When a technical glitch arose while trying to interface an Axis device with one of the other manufacturer's products, it only required one phone call to remedy. In another case, Pivot3's storage was new to OnSSI, but the suppliers worked tirelessly together to bring tem, an integrator like Idesco cannot ask for better support than we have received from OnSSI, Axis and Pivot3," says Silver. (*To see the project's entire equipment list, visit www.securitysales. com.*)

#### **IT CONSIDERATIONS PROVE CRUCIAL**

The most difficult aspect of the Adelphi installation actually arose before a contract was even drawn up. It's an issue that was touched on at the outset of this article in the context of security integrators today needing to truly partner with end users in the best, longterm interests of clients' security, safety, cost control, and optimizing general operations and efficiencies.

As physical security converges with logical security, more systems are running on the enterprise/facility/campus network. As a result, network administrators are becoming more involved in the security process. Although these IT professionals are becoming more comfortable with this scenario, security integrators and equipment manufacturers must keep learning how to "speak their language" and satisfy their requirements.

This dynamic played out in the Adelphi project since by its nature the IP video system needed to reside on the campus' networked infrastructure. Sure enough, one of the most important facets of the job was making sure the university's Office of Information Technology and Resources understood the IP security solution would have no negative impact on Adelphi's network and that it would not impose onerous support requirements from an already busy staff.

"One of the key concerns was, of course, bandwidth," says Silver. "But using the design tools OnSSI and Axis provide as part of their engineering packages, we were able to demonstrate our system's flexibility and manageability to live within the constraints of a busy academic network where the transfer of large research files and massive Internet traffic are the order of the day."

Another vital concern for the school's IT department was ongoing maintenance and support, an area in which



Three stories up, an Axis 233D camera monitors the main gymnasium and running track inside Adelphi's new sports center.

history working with customers' network managers. "We believe offering this option was key in winning the contract," says Silver. "It allows end users to best allocate their own resources, while knowing the new system will be properly maintained and supported."

Beyond the network issues, the only other hitch Silver can recall was a couple of wiring errors. However, those were swiftly identified and fixed by Com Bell. "We worked well together to get the Adelphi project completed and will recommend Idesco for any future IP installs," says Com Bell President Pat Santoro.

### SCHOOL SALUTES SYSTEM/INTEGRATOR

Although the installation had been wrapped up much remained for Idesco to get done in terms of system testing, training security personnel and ensuring the results met or exceeded the customer's expectations. As fate would have it, an unplanned incident expedited the process and validated the value of both the solution and integrator.

"Prior to our planned formal training, we had a medical emergency on campus and our public safety officers were able to use this system to monitor the situation, direct first responders to the right location more quickly and save the events on permanent storage media," says Palma, who was surprised about the system's user-friendliness. "Our staff had managed, in only a few days after the system was first turned up, to teach themselves most of what they needed to know." Today, Adelphi is delighted with its fancy new IP video system. Specific points of satisfaction include the clarity of surveillance images and how well the license plate capture works. Adelphi is equally enamored with the relationship it has forged with Idesco.

"We were particularly pleased with the level of service we received from Idesco, especially in terms of being willing to coordinate between Public Safety, the general contractor and the trades, and, especially, with our ITS department," says Palma. "By keeping all of us informed early on, Idesco prevented many of the headaches normally associated with this scale of project."

Adelphi's only gripe was out of the integrator's control — the obsolescent nature of electronic- and computer-based devices. "It is a bit frustrating that by the time we follow best practice procedures and work through review and selection processes," says Hughes, "the equipment we have selected has been surpassed by a newer version."

Fortunately for Adelphi, as these technological advances become viable, the university's needs change, or its present system requires maintenance, it can count on Idesco to deliver the necessary answers and support — a role the integrator has already begun to fulfill.

"We have added several cameras to the system, and Adelphi has expressed interest in extending it to some new projects in the design phases," says Silver. "We try to foster partnerships with our customers. Working with Adelphi has been a real pleasure." n



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