

## Unifying physical security creates a safer campus.

Binghamton University expands its proactive security footprint with Axis network cameras, 2N intercoms and integrated network audio hardware and software solutions.



**Organization:**  
Binghamton University,  
State University of New  
York

**Location:**  
Vestal, New York, USA

**Industry segment:**  
Education

**Application:**  
Safety and security, public  
announcements

**Axis partners:**  
IK Systems, Genetec

### Mission

Binghamton University, State University of New York, has grown significantly over the years to comprise roughly 120 buildings, with more in the planning stage. The Security Infrastructure and Support Department was tasked with finding a more advanced and feature-rich security solution – one that could unify the various security subsystems under one management umbrella and help university police respond to critical incidents as they occur.

### Solution

The university embarked on a multi-phase project to entirely revamp campus security. The first step was to install a Genetec™ Security Center that would unify control of the school's multiple security solutions; video management, access control, license plate readers and blue-light phones into one central location. They began by systematically replacing broken and obsolete analog cameras with more than 1500 Axis network cameras. They also installed Axis network cabinet, ceiling, and horn speakers throughout the campus using Axis network audio bridges and audio management software.

The speakers were then integrated with the existing Alertus emergency mass communication system. Work is currently underway to replace the campus-wide emergency call boxes with 2N video IP intercoms.

### Result

In many locations, the school has been able to replace multiple legacy cameras with a single Axis one that is able to monitor several directions simultaneously and provide extremely wide fields of view and exceptional night vision. The image clarity of Axis cameras has been instrumental in helping university police quickly resolve incidents like theft, vandalism and harassment. With cameras monitoring roads leading onto campus, local law enforcement has occasionally relied on the university's video to help them identify witnesses and apprehend suspects. Integrating Axis network speakers and audio management software with the emergency notification system, gives the university the flexibility to broadcast announcements and alerts campus-wide or target specific zones.



## Taking a unified approach to security

Binghamton University, once a small liberal arts college, has grown into one of the top public research universities in the United States. The 930-acre campus, just 10 miles north of the Pennsylvania border, is home to more than 18,000 undergraduates and graduate students. It's comprised of roughly 120 buildings, including eight residential communities, seven colleges and schools, three libraries, a theater complex, an art museum and more.

In view of the increased incidents at schools across the country, the university felt it could no longer be complacent about the degrading performance of its aging analog surveillance cameras and door access system. "Given the growing complexity of our campus," says David Martin, Assistant Director of Security Infrastructure and Support for Binghamton University, "our needs far exceeded what those 20-year-old systems could provide."

Rather than simply replacing aging equipment with newer digital technology, Martin wanted to create an integrated solution that would unify all campus security systems under one management umbrella. "We wanted one system interface to all our physical security devices so that our dispatchers and campus police could manage incidents as they were happening, not simply respond after the fact," he explains.

### Protecting student housing areas

The first step in the multi-year project was to install a Genetec Omnicast™ video management system (VMS). "Once we settled on a VMS, our next goal was to choose hardware and software that would easily integrate with it, which led us to Axis technology," says Martin. "Their reputation in the industry is outstanding and they offer an extensive portfolio of network cameras, speakers, intercoms and audio solutions that met our needs."

Residential dormitories were the first to benefit from the new network cameras. Axis worked with IK Systems for design and layout and with Martin's team to select the best models for each targeted location: entrances, common areas, hallways, stairwells, etc.

"There was even an Axis camera perfect for monitoring our elevators," enthuses Martin. "We mounted it in the corner which gives us a complete wall-to-wall and floor-to-ceiling view of the entire elevator car."

"We even use that camera in our interview rooms when we question suspects or witnesses to an event," says Patrick Reilly, Deputy Chief of the University Police Department. "It gives us a really high, forensic-quality recording of those proceedings."

Because the Axis cameras integrate with Genetec's VMS and access control system it will be easy for university security to sync time-stamped video footage to verify who is entering and leaving a building. This capability combined with Genetec's license plate recognition and voice over IP segments produce a completely unified security center.

### Creating a more robust mass communication system

Binghamton University's original mass communication system was a single speaker atop the library tower. "You could hear the alert from miles away," states Martin, "But if you were inside a building you wouldn't know what they were saying."

To remedy the situation, the team began installing Axis network-based ceiling and cabinet speakers inside campus buildings and Axis horn speakers for outside use, along with an Axis audio management server that connects the speakers with the Genetec Security Center.





**“Working closely with Axis Communications has helped us expand our security footprint while providing our police officers, students and staff with tightly integrated solutions that ensure everyone feels safer on our campus.”**

**David Martin, Assistant  
Director of Security  
Infrastructure and Support.**

“Before the Axis technology, any message we broadcast went out to the whole campus,” says Chris Kelly, Physical Security Technician for Binghamton University. “With this new set up, we can broadcast specific information to different parts of the campus.” The Axis audio management solution allows the university to preprogram target zones by quadrant, building, even individual speakers.

As the security solution continues to unfold, Binghamton University has plans to replace its emergency call boxes along campus walkways with video IP intercoms from 2N, an Axis company. Because they include high-resolution cameras, continually self-diagnose to maintain optimum performance, and the ability to trigger nearby cameras to record the surrounding area, the intercoms provide a much higher level of security than the old telephone technology. In addition to the panic button that immediately links the user to the university’s police department, Martin’s team is hoping to eventually include a 4-1-1 feature that will give users a direct line to the campus information center.

“We plan to configure the 2N intercoms into our Axis audio server so we can push out messages to the device speakers just like we do with all the other speakers we’ve integrated into our campus-wide security solution,” says Kelly.

### **Monitoring roadways, construction sites and public festivals**

Since Binghamton University abuts residential neighbors, the security team made a concerted effort to monitor roadways in and out of the campus. “Axis recommended a multi-lens camera that would not only give us a long and mid-range view of the streets but also a close-up view of the intersections,” says Deputy Chief Reilly. “In the past, it would have taken at least three cameras to accomplish that.”



The university police especially appreciate the extraordinary night vision of the Axis cameras. Axis Light-finder technology enables the cameras to record in full color in virtual darkness, providing officers with critical details that could never have been captured by their old analog cameras. “It’s amazing how good they are,” says Deputy Chief Reilly.

One of the other features of Axis cameras that the police department finds particularly useful is the ease at which they can be moved to different locations as needed. “We purchased two cameras that we put on a telescope platform that we use to monitor rallies and town festivals where revelers might spill onto our campus,” explains Deputy Chief Reilly. “As long as Martin’s group provides us with a network drop, it’s just a matter of plug and play.”

When it comes to monitoring new construction or renovation projects, currently the police department relies on Axis cameras mounted on the rooftops of nearby buildings or on poles in neighboring parking lots. Going forward, Binghamton University plans to retrofit Axis technology into all of its existing buildings and lay down network infrastructure during ground-breaking on new construction so that Axis cameras can be installed at new sites before building begins, which should curtail theft and vandalism.

### **The value of a close partnership with Axis**

David Martin views the university’s partnership with Axis as more than a great investment in technology. Axis provides extensive training and certification programs for dispatchers and other users of the system. And direct technical support is only a phone call away.

“Our relationship with Axis continues to be a very positive one,” says Martin. “It’s clear they want us to succeed. With their support and continued guidance, we’re gradually becoming more proactive – able to head off problems instead of simply reacting to them after the fact. And that’s what greater safety and security on our campus is all about.”

**BINGHAMTON  
UNIVERSITY**  
STATE UNIVERSITY OF NEW YORK



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# About Axis Communications

Axis enables a smarter and safer world by creating network solutions that provide insights for improving security and new ways of doing business. As the industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, and audio systems. Axis has more than 3,500 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Axis was founded in 1984 and has its headquarters in Lund, Sweden.

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