

## Conestoga College updates outdated CCTV system with Axis IP video. New surveillance system at multi-campus college enhances safety and efficiency.



Organization:  
Conestoga College  
Institute of Technology  
and Advanced Learning

Location:  
Kitchener, Ontario,  
Canada

Industry segment:  
Education

Application:  
Safety and surveillance

Axis partners:  
Bulldog Fire & Security,  
Exacq Technologies

### Mission

Conestoga College is a large and growing post-secondary institution in Kitchener, Ontario, spanning five main campuses and numerous satellite locations. This dynamic and modern institution, however, was relying on a mismatched and outdated video surveillance system, much of it old and antiquated analog equipment. The college needed to implement a modern digital system that could cover the buildings, parking lots and grounds, providing high-quality forensic and real-time video surveillance.

### Solution

The college selected Bulldog Fire and Security, an Axis Communications partner since Bulldog's founding in 2000, for system design and installation. Following an audit by Bulldog and Conestoga, a hybrid model was adopted: existing analog cameras are digitized into custom-built hybrid servers, while new installations—such as at parking lots, new buildings and outdoor areas—employ all IP cameras.

Thus far, more than 100 HDTV-quality Axis networks cameras have been installed, and the entire system is controlled by exacqVision VMS Software.

### Result

Conestoga has seen dramatic improvements in video quality and incident searches. This allows it to aid law-enforcement officials in ways it could not before and dramatically reduces the time security personnel devote to examining video. Forensic searches that previously consumed hours are now conducted in minutes, and Conestoga security has implemented entire emergency training procedures around the new system. Also, areas that were unreachable by analog cameras, such as green spaces and parking lots, now have full coverage. The system is now featured in orientation tours for prospective students and their parents.

"We offer so many different types of educational programs that, from a security perspective, we must go from an academic setting to a machine shop to an industrial setting. IP technology allows us to put cameras where the old analog system couldn't reach. And the ROI has been immediate: the resolution is amazing and the new system has been a huge and obvious improvement."

Don Willis, Director of Safety and Security Services, Conestoga College.

## Replacing an aging infrastructure

Conestoga College encompasses five campuses and many satellite locations, and serves almost 50,000 students. Keeping an eye on all that was a challenge for administrators. The school relied on "old analog cameras dating back 15 to 20 years," according to Don Willis, Conestoga's Director of Safety and Security Services. "We had used and new equipment purchased over the years and a variety of DVRs stuck in backrooms. One room had seven DVRs and so much cabling you couldn't get to the back of the room."

This aging infrastructure was not keeping pace with the modern and growing college. "The quality of the images was simply not very good," Willis says, "and we often did not have cameras where we needed them." An audit evaluated the system against the school's future needs "to create a plan for us to move forward."

## Enter IP

Conestoga selected experienced Axis partner Bulldog Fire and Security as its security consultant and integrator. The college uses all IP cameras and server-based storage for new installations and links older analog cameras to hybrid servers from Exacq Technologies. "For example, we replaced old DVRs at our Waterloo campus with a new Exacq hybrid server... At Cambridge, we have 67 IP cameras," Willis says.

The new cameras at Cambridge include 20 AXIS P1346-E (outdoor-ready, 1080p HDTV) and 47 vandal-resistant AXIS M3204-V Network Cameras (indoors, 720p HDTV). Elsewhere, Conestoga selected AXIS P3344-VE for high-quality outdoor surveillance and AXIS M3014 for coverage inside administrative buildings as well as classroom and dorm corridors. The quality of Axis cameras has been a revelation. "The [old and new] systems are like night and day," Willis says. "With the old system, investigators sometimes sat for hours trying to find an incident on a DVR, and that same evidence can now be found in minutes. If something serious happens, we're able to hand police the video when they come in minutes later. That is a huge and obvious improvement."

The cameras have helped catch car thieves who had struck a number of large local parking lots. A number of high-end pickup trucks and SUVs had been stolen from the Doon campus. The Axis cameras captured a suspect's vehicle on video, which allowed the local police to break up a huge car-theft ring.

## Much better coverage

College campuses have vast areas to cover. Conestoga's Doon campus, for example, has more than 4,000 parking spots. "Getting coverage out there before was simply not possible, because it's too far for coaxial cable," says Ron Landry, co-owner of Bulldog Fire and Security. "But fiber doesn't have that distance limitation, and that allowed us to put high-resolution IP cameras out there." Doon also has a large green space that "was always a safety concern," Willis says. "Our previous service provider said there was no way to put cameras there because the analog cabling and installation was cost prohibitive. But we have a network infrastructure throughout the campus, so now we have two new IP cameras focused on the pathways. They give us amazing video."

The quality and coverage are so strong that students and faculty members often request security personnel follow them on cameras when walking alone. "Staff members, for example, can walk out of an office and have confidence that we are watching," Willis says.

## Proud of its security

The improvement can also be seen when the college conducts improved training exercises. In one, personnel scan live video feeds looking for a subject moving through campus wearing a reflective vest. "With the analog system, we could never train our staff this way," Willis says. "At first, it took our staff almost 20 minutes to locate the suspicious person. Today we're well under five." This is a story Conestoga is happy to tell. "Cameras are a big selling feature. We explain the security system to students and parents at orientation, and our cameras provide peace of mind and set us apart from others," Willis says. Adds Bulldog's Landry, "Return on investment is immediate, and hasn't always been in obvious areas. Student and parent buy-in is hugely valuable to a college."



"The argument usually is 'If it's not broken, don't fix it,' but technology is moving so quickly that Conestoga has taken the initiative head-on and is moving forwards. The college's video searches are now enormously faster. While there is always a cost involved [when adopting the latest technology], the return on investment has been seen very quickly," says Joe McCann, co-owner, Bulldog Fire and Security.

