Case Study

Accrington Academy

Accrington Academy installs Genetec's Omnicast video surveillance platform to protect students, staff and school

Accrington Academy is a publicly funded secondary school, providing education for 1,150 students aged 11-18 years. The Academy is located in Accrington, Lancashire in the United Kingdom, about an hour northeast of Liverpool, and is home to a diverse population of around 35,000. In 2008, the United Learning Trust began sponsoring the school, along with a number of others, at which time Accrington Academy opened featuring Sports and Mathematics specialisms as well as themes in ICT (Information and Communication Technologies) and Business and Enterprise.

Business challenge

Accrington Academy is situated in a building that was originally constructed in the 1920's. When the United Learning Trust began sponsorship, the building was expanded to accommodate a larger student body and was updated. Today, the school resides on a site that is a mix between the 1920's architecture and a newly built structure. The previous 15-camera analog video surveillance system was no longer adequate after expansion of the building was complete. Moreover, the analog solution had only provided coverage of external areas and main thoroughfares.

Recent legislation has placed a large focus on student safety in schools that requires administrators to know the whereabouts of their students at all times. Staff must be able track each student's exit off the property, and also monitor to ensure that all who enter the property are supposed to be on campus. This poses a significant challenge to the institution, as keeping eyes on all corners of the facility is labour-intensive, and to achieve this without technological intervention would require an inordinate and expensive amount of staffing.

Additionally, between the hours of 6pm and 9pm, Accrington Academy allows other organisations to use their sporting and teaching facilities. Only a few staff members are onsite during these events, and surveillance is important to ensure safety and care of the property. Currently the frequency of these events is low, but the business model is changing to accommodate a significant increase in these extra-curricular, after-hour activities. External facilities and flood lights are being installed for evening events, and additional surveillance capabilities will be required to manage these new areas.

Upon receipt of funds from the United Learning Trust, Accrington Academy was able to look towards the design and installation of a comprehensive video surveillance system in the school. Their

objectives were to address these issues, and to more broadly help protect staff, valuable equipment housed on campus for the Academy's ICT theme, and above all, students.

End-user needs

In searching for a new security solution, Accrington needed to provide complete and undisrupted coverage of all areas of the school in order to best comply with the new student safety legislation. The new system would need to be configured to work around the odd angles and spaces still present from the 1920's structure, and also extend into the classrooms to provide the necessary coverage as well as assist in resolution of misbehaviour.

Accrington Academy wanted a state-of-the-art platform to keep ahead of the technology curve, and decided to seek a future-proof IP system that would provide scalability and the flexibility to update, change or add cameras easily when necessary. Accrington Academy was also constrained by a limited budget, so it was vital that the new platform provide the greatest value relative to price.

Accrington Academy reviewed bids from three companies via three different integrators, stressing the need for open architecture, quality images, comprehensive coverage and expandability. In order to conclusively determine the best solution for Accrington's needs, Will Ames, Director of Business and Operations at Accrington Academy, had a small test build created for each of the three candidates.

The perfect solution

"Our decision was easy to make because, of the three tests we ran, the best quality was delivered by Genetec's Omnicast video surveillance system," said Mr. Ames. GRANTfen Fire and Security, a Genetec Certified Integrator, had submitted the

Omnicast bid after being referred to Accrington. When Omnicast was chosen, Stephen Harrison, IT and Project Manager at GRANTfen, was enlisted to assist in the design and installation of the new, state-of-the-art Omnicast system.

The school now boasts 151 megapixel cameras, recorded via two archivers. Video coverage is provided for each classroom, all main circulation points and nine external areas. A Dell Workstation with two monitors provides viewing stations, and Web access has been set up to allow teachers to monitor from their desks as well. Remote viewing is also enabled for senior members of staff, and there is a potential for mobile monitoring via smartphones in order for staff members to keep track of school security while on vacation. The remote monitoring feature is a large improvement over the last system, and allows staff greater flexibility to do their job effectively while on the go.

After hours, a specialist monitoring center manages campus security and has access to the surveillance data. There is also a possibility of integrating the school's separate access control system in the future, enabling a link between surveillance of doorways and access control information.

About a quarter of the time, the Omnicast surveillance system is utilized for live monitoring. Particular uses include situations in which police might call to inform the school that an incident may be about to take place outside of the building. Using Omnicast's mapping feature, administrators can then quickly and easily identify the specific camera and pull up the surveillance feed to monitor the situation.

The remainder of the time, the system is used for after-the-fact incident review. This data is particularly helpful for resolving student disputes and minor disciplinary issues, though select data can also be collected on a disk and provided to law enforcement for review when necessary.

Benefits

The Omnicast platform has provided Accrington Academy with peace of mind, knowing that they have the comprehensive video surveillance coverage they sought. They have even enabled sound capabilities on cameras in circulation areas, allowing staff to monitor students in the hallways both visually and auditorily. The Bookmarking feature enables them to quickly and easily flag a certain moment in a video feed to aid in a speedy review process later. Omnicast's user-friendly interface has easily melded into the school's daily operations. Moreover, the maintenance of the system has gone well. Mr. Harrison noted that the system has been "incredibly stable" and does exactly what the school requires of it.

Accrington Academy has also been able to integrate its proprietary external intrusion detection system with the Genetec platform. Their passive infrared system monitors the external perimeter of the school building after hours. Accrington Academy was able to work with GRANTfen to create integration between these two systems, completely independently of any third-party programming or input from Genetec. GRANTfen created a feedback system allowing any broken infrared link to send an alarm to a micro controller. Omnicast is flexible enough to then receive and understand data from the micro controller, including location of the breach, which is used to drive changes within the platform such as an increase in recording rates or bookmarking of

the relevant feed. Finally, that data drives an alert to a third-party monitoring company, which can then review the video feed, as well as speak to any intruders via an on-campus speaker system located outside the building.

After deploying Genetec's Omnicast, Accrington Academy noticed tangible improvements in security and management of incidents on the campus. "Since we installed Omnicast, a higher percentage of bullying incidents have been reported, reviewed and resolved via conclusive video evidence," reports Mr. Ames. Moreover, if a student complains of unjust discipline, video archives can be employed to illustrate justification for disciplinary action. This allows for smoother interactions with students, as well as a decrease in friction with parents who desire tangible evidence in order to feel their child's discipline was justified. Administrators can also monitor and prevent attempts by students to leave campus during school hours, or if not caught in time, can review video to locate the direction in which a student left to quickly track them down. More specifically, the Omnicast platform has already helped to solve a theft incident. "At one point, a mobile phone was reported stolen, and video archives were able to quickly reveal the student who had taken the phone, enabling recovery of the stolen property," said Mr. Ames.

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Omnicast has helped to better secure the Accrington Academy campus, but the school has also started to find non security-based uses for the platform. Mr. Ames is in the process of setting up a monitoring classroom that employs the cameras' microphone features. This will allow teachers who request observation or guidance to conduct their classes in the monitoring room. There, the cameras will be able to unobtrusively monitor both sights and sounds in the classroom and provide feedback to supervisors and the teacher without disrupting the normal dynamics of the class in the way an outside observer physically sitting in might. "Right now we're on the tip of the iceberg where these additional system uses are concerned," said Mr. Ames.

In the future, there are plans to extend the building grounds, requiring an addition to the arsenal of cameras. An all-weather football pitch is planned, as well as a swimming pool within a few years, both of which will require increased video surveillance

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coverage. There are also plans to supplement the current cameras with extra coverage in more sensitive areas, such as the cashless vending area.

"This system provides us with the flexibility we need to use whatever hardware we prefer – whether low end or high end – depending on our financial capability. If, in the future, we have the ability to install higher megapixel cameras, our Omnicast platform will seamlessly transition to the new hardware without requiring a lengthy and costly rewiring or a massive system overhaul," said Mr. Ames. "It's just a really good system."

"What we like best about the Omnicast system is how it fulfills all of the customer's requirements very, very easily. There are a lot of systems out there that might have worked, but they would have been very complicated to implement," said Mr. Harrison. "Plus, Omnicast has proven to be an extremely stable solution. It's a perfect fit for the school. In fact, we are putting it into other schools as well – it's reasonably priced and exactly what they need."

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Genetec Inc.
genetec.com/locations
info@genetec.com
@genetec