Axis brings safety and accountability to school.

Special needs school brings greater safety to children and accountability to stakeholders with Axis network cameras.

Organization:
Waimokoia Residential School

Location:
Auckland, New Zealand

Industry segment:
Education

Application:
Providing a safe and secure environment to students and teachers

Axis partner:
PassionIT and LAN1

Mission

Waimokoia Residential School, situated in Auckland, is a specialist school for children who display significant behavioural, social, emotional and learning problems. With residential and school facilities to accommodate up to 44 pupils, aged 7-13, the School endeavours to provide a safe and secure environment for its students and teachers; security cameras are central to this. With students exhibiting behavioural and social problems, there were occasional incidences of children wandering from their residences. Security cameras were also relied upon if allegations of misconduct arose and monitored the school's facilities, such as car parks and playgrounds, from being used by the general public without permission. Waimokoia School needed to provide greater accountability to its stakeholders.

Solution

On the recommendation of IT consultancy PassionIT, Waimokoia School installed 18 Axis network cameras distributed by LAN1 in New Zealand. "Axis was clearly the best solution on the market," says Scott Palmer, Director for PassionIT, "and one of the few brands that has proven itself effective in security for a school environment." Eleven fixed AXIS 211 Network Cameras have been placed inside the school, one in each classroom and hallway. All the analog cameras outdoors and in each residence have been replaced with AXIS 213 PTZ Network Cameras. Two wireless AXIS 206W Network Cameras have also been installed, one the school's reception area and the other in its recreation room. The Axis network cameras stream live video to an Insite PC, which serves as a high quality server. The desktop holds 50 days of data and has a 300 GB hard drive for the video data and an 80 GB hard drive for the operating system.

Challenges

Six security cameras were located on Waimokoia School's premises, two cameras in each of its three residences and three outdoors. These transmitted audio and video data via a coax cable to a video recorder through an analog system. A TV screen located in the office of each residence relayed back images to a supervisor. All the

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Mr Whiti Harris, Director of Residential Services, Waimokoia School.

images fed back into a main system. Analog was the means of operations for the cameras for over twelve years and according to Whiti Harris, the Director of Residential Services, the outdated system was quickly deteriorating. Viewing activity at night through the cameras was compromised by the degrading image clarity of the analog cameras. Staff also were only able to view images from the two cameras specific to their residences at a given time. There were no security cameras in school rooms and the recreation room, areas identified as where incidences were more likely to occur and the current cameras have no flexibility to view wider areas required or be easily transferred to different locations. With all images stored onto hard tape, staff faced the laborious task of manually tracking through video footage for particular footage. It also had repercussions as to how fast the School could respond to an incident and report back on it to its stakeholders. Waimokoia School is required to archive eight years of footage as part of its compliance to its governing body. This resulted in an entire room being dedicated to storage of video tapes. Moreover, the analog video recording system requires daily manual change-overs of tapes.

Result

Using existing networking cable there was no additional expenditure required on cabling infrastructure. Additional savings for the School are from the supply of power being conducted through Power over Ethernet (PoE). The video network also runs over the School's voice network, minimizing any impact on the School's bandwidth needs. According to PassionIT, Waimokoia School had projected it would take one year to implement the entire solution – it was completed within a few days once a Virtual Private Network was setup for the school. The return on investment by the School was realised within a few months, with an estimated NZ$48,000 allocated to the project to date. "The easy transition to digital with data running through a PC has significantly increased the image resolution of any incidences that take place from a distance away," said Mr Harris. With adjustable settings that allows night time surveillance, the School has installed two additional AXIS 213 PTZ Network Cameras for staff security in car parks. During a shift change staff

can clearly view the car park at night from the residence's cameras. Staff can now locate a video sequence within seconds by simply searching by date and time on the PC. The cameras continue to record as footage is being reviewed. The ability to view the images in real-time has allowed the Directors to follow-up issues and personnel queries immediately. "As an incident is occurring staff can view live how it is being handled, which aids them in their learning development at the School," said Mr Harris. Digital video clips can be easily emailed or transferred to CD and sent to teachers to assess and use as a training tool. The School has moved its entire IT infrastructure into a dedicated server room. Digital video recordings are transferred automatically on to a CD and the storage space required becomes minimal. "As Axis continually updates our camera software, the School's security network is future-proof and allows us to carry out upgrade without any downtime in operations for the staff," said Mr Palmer.

Future

Axis network cameras are the ideal solution to give stakeholders a transparent point of view through remote viewing using an internet browser. In 2006, plans are underway to allow parents, guardians and directors to connect to the cameras so they can access activity in a classroom, or an evening programme. With this remote monitoring, Waimokoia can provide convenience and further improve its services to users. Additionally the outdoor cameras may be integrated with the security monitoring company the school uses. The proposed integration allows the security company to access certain outdoor cameras on their own network in response to an alarm being triggered.

Conclusion

"Simply the presence of the Axis network cameras in the classroom has raised staff confidence in situations with students of behavioural needs where the possibility for riotous situations is high," says Mr Harris. The network cameras monitor incidences which had a low visibility in the past and places the School in a stronger position to provide more accountability and have more involvement from the stakeholders and the community.

"The need for web integration through digital video recording for security was evident. Images were black and white, and at times barely visible. There was no capability for stakeholders to view video data remotely and the school's networking resources couldn't cope with converting the analog data into digital." Mr Whiti Harris, Director of Residential Services, Waimokoia School.