

Safe education at Karaganda State Medical University.

Digital video surveillance from Axis integrated with University's internal web.



Organization:
Karaganda State Medical University (KSMU)

Location:
Karaganda, Kazakhstan

Industry segment:
Education

Application:
Safety and security

Axis partner:
X NET
Abris Distribution
Kazakhstan

Mission

Karaganda State Medical University, a leading medical institution in Kazakhstan, makes a great efforts to create a comfortable environment for students and teaching staff in its academic buildings, libraries, scientific research centers and hostels. The university's administration has decided to replace the existent analog video surveillance system that does not meet the required image quality, with an advanced video camera system to ensure reliable surveillance over the campus. Besides video surveillance deployment, the project also includes installation of video analytics software and creation of possibilities for centralized viewing and recording storage.

Solution

The university's administration selected Axis solutions due to its integrated video analytics, wide product range, and reliable performance in all light conditions and areas: memory cards, power over Ethernet (PoE) etc. Also, such decision was driven by the fact that Axis is widely known as a world leader in digital video surveillance.

In total, 250 outdoor, indoor, fixed and dome Axis cameras were installed in various courts and buildings of the university distributed across the whole city.

Result

One of the advantages offered by cameras with integrated video analytics is that they virtually eliminates human factor problems, and video cameras automatically produce pre-programmed safety or security breach warnings while operators continue to stay focused on the most important areas. Another important fact is that Axis solution offers integration of cameras with university's internal Web-portal.

After project implementation, the administration of the university noticed an increased emergency response and reduced number of minor violations.

“We needed an innovative video surveillance that supported IP over Ethernet networks. Axis solution met all our requirements. I would like to underline that our surveillance system provides a highly detailed video and high quality audio recording, that really helps us in accident investigations.”

Director of Operations Department, D. Barkov.

Project challenges

A challenge for the project successfully realized for KSMU Axis partners, integrator X NET and Abris Distribution Kazakhstan, was that the buildings to install the video cameras were distributed around the city, and administration needed to store and view video both in individual buildings and central location.

The cameras support an intelligent video solution from Exaq, that can be installed into their internal memory or, if possible, to the server. Such approach saves both bandwidth and provides a real-time response in case of event.

The integration of Axis cameras with the university's web-portal enabled interfaces to grant access to cameras for all heads of departments enabling them to quickly get an overview of situations in the classrooms. If necessary, an operator may send an event picture to the central security station of the institution or administration.

Detectors for further security

The analytical capabilities of Axis network cameras are based on intelligent features: motion detector, virtual line crossing, perimeter protection, sound detection and analysis (e.g., broken glass), Gatekeeper function (when motion is detected, camera moves to that area and tracks an object).

Video analytics enables the cameras to automatically monitor a large number of facilities, providing operators an opportunity to focus on the most critical areas. For example, a camera can respond to changes in object position – PC etc – and thus prevent its theft.

In places where visitors usually forget their belongings (dining room, cloakroom), cameras produce alerts when any object stays in the same place for more than 30 min. When a person appears, the camera installed at the entrance of Operations Center commands another cameras to track all his/her movements.

For viewing a long video record, static image processing function enables to filter only moving objects, thus making particular event or person search more effective.

Further evolution

The centralized storage of records made by network video cameras enables security operator to get access to video archive using any mobile device, including smartphones and tablet PC. The KSMU to administration estimates, that the perfect picture and sound quality offered by Axis cameras helped to increase the number of successfully investigated accidents and disputes up to 90%.

To keep up with the times and become as safe as leading European universities, KSMU administration plans to develop cooperation with Axis and in the future to expand video surveillance system to cover all buildings of the university. “We can increase security and safety for our students only using a new “smart” technology” says D. Barkov, Director of Operations Department. “We like the system that we have implemented: quality offered by Axis cameras allows us to achieve our high security and monitoring goals”.



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