

The streets of Łódź are safer with Axis cameras.

Axis devices are used for video surveillance of the city's main roads and the high street.



Organization:
Municipality of Łódź, Łódź
City Council

Location:
Łódź, Poland

Industry segment:
City surveillance

Application:
Safety and security, traffic
management

Axis partners:
Sprint S.A., Genetec

Mission

The project's first stage main objective was to ensure safety, detection and quick reaction to threats and incidents in the high street of the city. The effect was good enough that the citizens themselves decided to continue and they applied to broaden the system. The video surveillance system in Łódź is still under development and it has recently been integrated with a traffic management system (ITS). The next stage of the project will see the area under video surveillance significantly increased.

Solution

The main problem to cope with for the system's developer, and then for the contractor, was to find an appropriate location for the cameras taking into consideration their viewing range. The cameras were to be mounted on old historical buildings, mainly under protection. At the same time, the maintenance access to the devices had to be ensured.

The cameras used in the system had to have low-light sensitivity (for low light at night and Christmas illuminations) and be high performance devices (video analysis based on camera processes). More than 74 PTZ and 279 fixed cameras were used.

Result

353 cameras of the city surveillance system have been connected to the ITS traffic management system. At present, video from 444 cameras of both systems is transmitted to monitoring centers and stations and made available to municipal services as well as to the State and Municipal Police. Soon, video will be transmitted to the Fire Service. Each end user, in order to select threats in the city space, pays attention to different image characteristics. The users have appreciated the camera image quality and the reliability of the system and equipment. 99% of the system consists of Axis network cameras.

“All development activities, facilities improvement and broadly understood upgrade serve the development of our city as a place friendly to life and work.”

Łódź Mayor Hanna Zdanowska.

Discussions on a city surveillance system for Łódź took many years. Mayor Hanna Zdanowska decided in 2015 to take advantage of the renovation of Piotrkowska Street and Mickiewicz Avenue to install the City Surveillance System. The main objective was to ensure safety in the high street. 22 camera spots with 89 devices were created. The second stage of the project was decided by the citizens of Łódź when they chose to broaden the city surveillance as part of the participatory budget. 20 cameras were added at that stage.

“The citizens' safety is a priority to me and a city surveillance system is one of the tools to improve the comfort of living and an element of a so-called smart city. All broadly understood facilities development serve the improvement of our city as life- and work-friendly,” says Łódź Mayor Hanna Zdanowska.

The following years brought further development of the system up to a total number of 353 devices. The ITS system cameras were also connected to the video surveillance network. In total, the number of all cameras at present is 444, out of which 99% are Axis network cameras. The system integrator is Sprint S.A. and the integrating system was Genetec Security Desk.

Difficult access and time

According to Sprint S.A., the system integrator and the main contractor of the video surveillance system in Łódź, one of the greatest challenges in executing the consecutive stages of the project in Łódź was very short time for its implementation.

“Designing and making the system in prescribed deadlines of the technical and power facilities necessary to start the planned camera spots was very difficult. Moreover, the spots are situated in the city center in places with difficult access and cameras are often mounted on buildings under supervision of a historical sights conservator,” explains Maciej Mroszczak of Sprint S.A.

Another issue was to design the system such that it would be possible to open several monitoring centers and stations. An additional challenge was combining the City Surveillance System with the ITS video surveillance system simultaneously introduced by the Road and Transport Department in Łódź. Now the interconnected systems efficiently function together and video from each of them is transferred to monitoring centers of the municipal services.

Video for municipal services

It was assumed that the devices had to meet a few basic criteria.

“The Axis cameras used are HD and Full HD models. They are not the newest models but they certainly meet strictly formulated criteria,” says Ryszard Kozłowski of the Municipal Police.

The basic requirement was an ability to record high quality video at night taking into consideration the interference caused by car lights. Two camera types were used in the video surveillance: AXIS Q6044-E PTZ Dome, then AXIS Q6054-E and fixed AXIS P1355, then AXIS P1365 Network Cameras. They were supplemented by AXIS Q6000-E, and AXIS F44 with sensor units. Each of the camera spots was equipped with AXIS P8221 alarm input and output module, which is used to indicate alerts of the box opening or power failure. Additionally, cameras for automatic video analytics and an automatic video analytics system were installed. Some of the Axis devices operate as cameras with additional software for detection of objects in cameras.

The video surveillance images go to one Data Center operated by the Municipality of Łódź from where they are made available to municipal services, State and Municipal Police, and very soon to the Fire Service.



Not only main roads and the high street in Łódź are subject to video surveillance, but also places with higher crime rates.



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