Modernized surveillance system in the Brno city center.

Axis cameras helps improve traffic situation and counter petty crime.

Organization:
Brněnské komunikace a. s.

Location:
Czech Republic

Industry segment:
City-Surveillance

Application:
City monitoring system

Axis partner:
Veselý Dopravní Signalizace s.r.o., Genetec

Mission

Disparate group of analogous monitoring systems built from the mid-90s were proven to be inadequate, especially in the solution of complicated traffic situations in the city centre and solution of city crime. For this reason, the Statutory City of Brno decided to unify the individual systems on new digital technologies.

Solution

The City of Brno started building an integrated traffic security centre and modernisation of the camera system in the city centre, where the biggest problems occurred due to the confusing traffic situation and problems with small crime. In particularly exposed areas, the most advanced digital camera technology by Axis that is available on the market was deployed. In 2015 it is planned to unify the camera systems of the Czech Police, Brno Road Administration (Brněnské komunikace a. s.), Dopravní podnik and other entities on a uniform digital platform based on the optical network of the city.

Result

Brněnské komunikace a.s., has within the renewal framework changed end-of-life camera technology in the city centre and at the crossroads, where the Plettac system was used, to new full HD cameras from Axis, which represent the technological peak of the current offer on the market. Upgrade of camera points led to significant improvements in the optical properties of the image; the result is thus better information about the traffic situation or reduction of crime in the area of the tram terminal and the central underpass of the main railway station, which was for a long time fraught with the increased activity of pickpockets.

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"It can be said that by deployment of new digital technologies and high resolution cameras, the overall usage of the camera system has qualitatively improved and it is currently, for instance, possible to use the high resolution images for the requirements of the Municipal Police and Czech Police in evidentiary proceedings,"

says Daniel Šíma, Security Manager Brněnské komunikace a.s.

From three analogue systems to a digital future

The need to solve the confusing traffic situation, but also increasing requirements for securing public order and safety in a continuously growing metropolis, compelled the statutory city of Brno to start dealing with the construction of camera systems already in the second half of the nineties. This resulted in the gradual creation of a highly variegated mixture of analogue monitoring systems, which comprised the system of the Czech Police and the traffic monitoring camera systems of Brněnské komunikace and Dopravní podnik, Municipal Police Brno and the Road and Motorway Directorate. In 2004, the municipal council approved the agreement on joint development of the uniform camera system and in 2014 the Strategy for development of the camera systems of the Statutory City of Brno, such that they meet the current demands on CCTV systems. At the level of end-user cameras, it was especially necessary to solve the situation in the city centre, which like most other big metropolis faced the problems of confusing traffic situations and criminality. It is just in this area that the deployment of four AXIS Q6045-E and five AXIS Q6044-E Network Cameras, which represent the PTZ high-end camera series proved to be the right step.

Practical application

Brněnské komunikace on trial basis deployed camera points by Axis at selected crossroads, monitoring of the tram terminal at the central railway station and to improve the overview of the events in the central underpass of the central railway station. The wide angle shot of the two dome cameras in conjunction with the image quality in Full HD resolution (1080p HDTV) and 20x optical zoom brings great detail especially during targeted zooming, which makes possible the highly precise supervision of the monitored environment. This can be used, for instance, to read vehicle license plates at a distance of up to 275 metres.

It is thus newly possible for the Municipal Police and Czech Police to use the camera recordings very effectively in evidentiary proceedings with vandals, undisciplined drivers or petty thieves, which has been a long-term problem in the confusing corridor of the central underpass of the Brno's central railway station. Efficient work with the cameras is further simplified by the big tilt angle of the camera for a wide shot of the surroundings and easy remote control of both the tilting function and the optic zooming of the cameras.

In addition, the cameras have the AXIS Parking Violation Detection application, which detects not properly parked cars standing on prohibited areas and can quickly send alert towards dedicated department. Undisciplined drivers who complicate the flow of traffic in the city (and last but not least, also endanger the smooth passage of rescue services) are thus quickly detected in exposed places under camera surveillance.

Outlook

The Statutory City of Brno and Brněnské komunikace a.s. have big plans with the development of the city camera system. In the coming year, it is counted on the gradual interconnection of the camera system on a uniform digital platform. To this purpose, the fast optical network of the city and newly built modern monitoring centre for the Municipal Police should be used; access to the platform should also be provided to the integrated rescue system. The project envisages the usage of a single modern integrated control system, i.e. Genetec Security Centre 5.3., as an umbrella. The investments that the city has already made in the infrastructure of the new camera system and construction of the monitoring centre are not the smallest, it is however already clear that the efforts were worth it and the return on investment in future shall be manifold.

Brněnské komunikace

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