

Traffic under control in Forlì.

Strategic placement of network cameras ensure public security.



Organization:
Town of Forlì

Location:
Forlì, Italy

Industry segment:
City surveillance

Application:
Urban video surveillance
and traffic monitoring

Axis partner:
Altran Italia S.p.A.,
Arteco IVS S.p.A.

Mission

The municipality of Forlì, chief town of the Forlì-Cesena province, wanted to enrich the existing video surveillance installation with a system that could allow an effective monitoring of the vehicular traffic going in and out of the town area. Specifically, they were interested in gathering information about the traffic flow (number and type of vehicles), and getting statistics data that could help the administrators to choose the best traffic management policies.

Solution

Altran Italia, the Italian subsidiary of the Altran Group, offers advisor services to global organizations on technology and process innovation, development and management of IT systems as well as strategies and management. In the town of Forlì, about 70 Axis network cameras and video encoders have been installed and integrated with the existing analog cameras.

The system was subsequently extended, and it now includes a total of about 120 cameras for traffic monitoring and management, providing an urban surveillance facility for public security.

Result

The town administration of Forlì is fully satisfied with the installed system. One of the highlights is its scalability. Moreover, thanks to the ability to continue using the existing cameras, the council could get the most out of the investments made by the previous administrators and monitor wider areas of the town environment. The system is still being enlarged.

"We are fully satisfied with the facility we installed. Thanks to the new system we are able to monitor and improve our intervention in case of traffic jams, getting also a more general control on traffic, that will allow us to improve the road conditions. Moreover, this open system ensures the highest level of flexibility and allows for subsequent integration and modifications after the startup implementation."

Massimo Di Menna, Director of IT Services for the Town of Forlì.

Roads are under control in Forlì

The system currently installed includes approximately 120 cameras. Altran Italia chose to install about 70 AXIS 221, AXIS 223M, and AXIS 211 Network Cameras, using AXIS 241S/Q Video Encoders to integrate the existing analog cameras. The system has been subsequently enlarged with AXIS P1343, and AXIS P3343-VE SVGA Network Cameras. The cameras have been installed in the town's most strategic points, including crossroads, motorway interchanges, and close to the municipal parks, in order to ensure both traffic monitoring and a more general video surveillance for public security purposes.

In order to successfully meet the needs of the municipality and achieve the best performance, various different products were selected: AXIS 211, fixed network cameras with infrared light, were used in environments requiring 24-hour monitoring in all lighting conditions; in addition, AXIS 233M 2.0 megapixel cameras were installed to ensure sharp, clear, colorful and detailed images, ideal for securing sensible areas.

The system was expanded with more recent products, such as the AXIS P1343 Network Cameras, with outstanding H.264 performance that produce top level images; they have also been chosen for the possibility of back-ups on the onboard SD-CARD. The need of monitoring areas highly exposed to vandalism was solved by integrating the system with the AXIS P3343-VE, equipped with an anti-vandal enclosure that guarantees the maximum resistance in the most challenging environments. At present, integration of the AXIS P3344-VE in the system is being considered.

The system currently implemented allows the recording of images and subsequent automatic processing. Thanks to the software provided by the Artec partner, the town can make a detailed analysis of the traffic typology, split the vehicles in different categories and count them. Moreover, the software allows the detection of traffic jams, u-turns and vehicle speed.

At the end of a given time period, the town can extrapolate the exact total number of vehicles in transit, and the number of vehicles for each category (motorcycles, cars, trucks, etc.). This Intelligent Video function, installed on approximately 10 Axis cameras, allows the combination of traditional video surveillance features and the analysis of vehicle flows. The images are acquired and registered in the town premises and, after 7 days, the system removes them automatically. This allows images and video to be made available to the public security authorities, and always compliant with the privacy regulations. The transmission of images from the cameras to the control center is made through a mixed system, using different communication protocols (GPRS, UMTS, optic fiber), depending on the availability of infrastructures and the type of the installed cameras.

The system's highlight is the fact of being "open": the cameras can be therefore added and/or moved, without structural interventions or major changes. The quick and easy installation allows a rapid integration of new acquisition points, for example after acts of vandalism or thefts, when the intervention timeliness is critical. Moreover, an SOS post including an Axis camera, provided by the Technology Associates partner, has been placed near the municipal park. In case of need, with the simple pressure of the aid request button, the camera is immediately activated for scene recording, and the person in trouble can communicate with the police headquarters.

"This type of project introduces issues that can be addressed only by using products from different vendors, and needs a wide functional competence and a rigorous planning of activities. Altran Italia was positioned as a unifying and coordinator element for the municipality of Forlì and now, thanks to its specific technical expertise and its ability to manage the different players of such a complex project, the town can take advantage of a totally efficient system," explains Manuele Sanza, Marketing & Communications Director of Altran Italia.



Comune di Forlì

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