

Town Hall of A Coruña. Video surveillance for traffic control.



Organization:
A Coruña Town Hall

Location:
A Coruña, Spain

Industry segment:
Transportation

Application:
Traffic control

Axis partner:
Iterdata Networks

Mission

The municipal council of A Coruña occupies an area of 36.8 km² and is the second city of the Autonomous Community of Galicia as far as the size of its urban area is concerned. The growth of the urban area has been accompanied by a gradual increase in its population in the past three decades, which presently numbers close to 250,000 inhabitants. This situation has led to residential decentralization, which has involved the extension of the city limits. This decentralization has been accompanied by the development of new infrastructure, improvements in access and urban renewal.

One of the above-mentioned infrastructure projects is the centralized traffic control system inaugurated in 1993 and located in the bus station of A Coruña. Consisting of a total of 26 analog cameras distributed at strategic locations, the main function of this system is to control and manage traffic, thus preventing congestion in a city where the number of vehicles has increased considerably.

The need to prepare this facility so that it can remain useful in the future involved seeking to update this system to endow it with greater versatility and make it compatible with modern video monitoring systems. Additionally, the facility must meet the requirement of safeguarding the privacy of residents living in areas close to the location of the cameras, meaning that these cameras will sometimes have to limit their field of vision, including "blind spots", in order to record only events related to traffic.

Solution

Various solutions were proposed by the Town Hall, although, since a fiber-optic network is being installed, a system is being sought that will make it possible to integrate the cameras and video surveillance system into an IP network.

"In an ever-expanding city with an increasing number of vehicles, the mission we face is to update our traffic control system and prepare it for the future, making it more flexible and versatile, and allowing the simple incorporation of new cameras to provide services in recently constructed zones."

Juan Antonio López, Technical Engineer for Public Works – Citizen Safety Section.

Iterdata Networks, a company specializing in research and development of information systems, proposed to the Town Hall the setup of a demonstration facility to allow the advantages provided by IP technology to be tested in situ. The basic system proposed by Iterdata Networks consists of Axis network cameras and Ofisec PRO software from TOC Systems, a versatile professional management tool for complex video infrastructure.

In a previous experiment, a network dome camera was installed over a viaduct at a height of 150 meters above ground level, for the purpose of monitoring the junction linking the "A Grela" business park to the fire station. This is an area characterized by a high level of heavy-duty vehicular traffic.

Given the complexity imposed by the height at which the network camera is located, communication with the control center occurs via Wi-Fi, which led to some doubts as there was the possibility for security holes that would allow unauthorized users to gain access to the images. As a result a reduction was made in the projection cone of the antenna, thus turning the actions of possible hackers into a tedious and unproductive task.

Result

The first thing the officials from the Town Hall of A Coruña noticed was the evident increase in the image quality offered by the Axis network cameras. Likewise, the greater use of the fiber-optic network that now

links the municipal network with its counterpart in Traffic was evaluated positively. It thus greatly increased the radius of activity of the facility and made it possible to overcome the problem of scalability caused by usage limitations of analog cameras. Now it is a simple matter to relocate or incorporate new cameras into the system when necessary, without relying on switching arrays.

The application of the Quality of Service feature of the IP networks also allows them to reserve bandwidth for video, so that the flow of images is not affected by the utilization of other network applications.

The possibility of not needing to depend only on the control center for viewing of video images was also considered a positive asset, as it is now possible to access the system remotely via devices such as PDAs or mobile phones, as well as having the possibility to use an alarm notification system to provide warnings about anomalous situations.

The ability to include zone masks in private locations, thanks to the Ofisec PRO software from TOC Systems, enables the safeguarding of civil liberties, thus rendering it impossible to compromise residents' privacy. The multiple benefits of this software also include the option of configuring multiple preset positions for automatic night patrols; these options were very highly valued by the customer.



Juan Antonio López, Technical Engineer for Public Works – Citizen Safety Section, accompanied by a member of the local police.

