Sharing videos from 370 km away.

Marilia, in the interior of São Paulo state, became the first city to integrate with the state military police's video surveillance system.



Organization:

Marília Municipality

Location:

Marília, Brazil

Industry segment:

City surveillance

Application:

Urban safety and security

Axis partners:

Sillis, Genetec

Mission

Despite a population of 216,000 inhabitants, it was not until the end of 2014 that the city of Marilia, in São Paulo state, had any urban video surveillance system. Located nearly 450 kilometers by road from the state capital (370 km measured in a straight line), the city needed a security plan that could provide advanced technological resources at an affordable price. It wanted a system that not only offered surveillance capabilities but would also support the fight against theft and other incidents and provide information for law enforcement intelligence work. It turned out that because the city developed its system later than many other mediumsized cities, it had the opportunity to do so using 100% digital technology employing the most modern concepts in video surveillance.

Solution

Because Marilla did not have an existing fleet of analog cameras in the streets, it did not need video encoders to convert their images to a digital environment.

Using the latest high resolution PTZ IP camera models allows the system to cover a much larger area with fewer cameras, reducing the infrastructure costs of the project. With this in mind, the project integrator Sillis—an Axis partner—installed only 12 AXIS Q6044-E Network Cameras at strategic points throughout the city. These cameras are connected by a fiber optic network to the central station, where they are controlled by four AXIS T8311 Joysticks. The cameras management software is provided by Genetec, another Axis partner.

Result

In an unprecedented collaboration, the Genetec software enabled integration between local policing and the state-level São Paulo Military Police. How this works is that images produced at the Marilia Police Headquarters are transmitted in real time to COPOM—the São Paulo Military Policy Operations Center—in the capital city. Thus, Marilia became the first city to share data within the military police Intragov network.

Photo: Lígia Ferreira



"The main benefits we've noted with the system have be resolving police incidents, responding to traffic accidents, and supporting the fire department, in addition to social work initiatives with vagrants and homeless people who find themselves at risk."

Carlos Henrique Casarini, Director of Information Technology for the Marília municipal government.

Quality, not quantity

Like most of Brazil's 5,570 municipalities, Marilla does not have its own police force. Instead, urban security is handled exclusively by the military police, who focus on preventive initiatives and intelligence work. As time went on, the proposal to install cameras gained favor as a way to monitor incidents in the city and provide better-quality police services to residents. The Request for Bids emphasized a need for high-quality products, and the winning bidder was the integrator Sillis. "We've been working for a long time with Axis due to the quality and durability of their products. We've already installed Axis cameras at the Shrine of Our Lady of Aparecida, for example, which is an exemplary project for our company. Today, Axis is the leading manufacturer on the market and offers a the widest variety of solutions," reports Marcel Minotelli, Director of Technology at Sillis.

Twelve AXIS Q6044-E Network Cameras were installed at strategic points identified by the São Paulo Military Police, such as roads and plazas. The devices are connected to the city government offices via a fiber optic network, enabling the transmission of images at the highest quality. The 360° viewing angle, coupled with HDTV quality, creates an impressive overview. "In some places the zoom is even more than what we need. From some cameras you can see as far as the next one, from one point to the next. We're talking about a distance of about 4 km," says Minotelli.

Sillis also took advantage of the shock detection feature available on the cameras and integrated an automatic alarm that allows the camera to operate automatically to identify suspects attempting to vandalize the equipment or striking the pole—even without an operator monitoring what is going on at that specific moment.

The first months

Sillis understood the importance of providing training for the military police team members who would staff the monitoring station so they could get the most out of the system, In this training officers learned how to use the system's multi-site integration feature: that is, its ability to stitch together multiple environments (images of roads, urban areas, etc.) at the same central station. The next step was to carry out a one-month assisted operation phase, during which the military police users had the opportunity to have their questions answered by Sillis technicians. It didn't take long to reap the rewards of this investment.

In just the first six months after the video surveillance system was unveiled, Marilia saw its murder rate cut in half, according to official data released by the São Paulo State Public Safety Department. Homicides dropped from four to two incidents in the months from July to September, the first three months that the system was in operation. The improvement in this indicator enabled Marilia to post to a homicide rate of 6.23 per 100,000 inhabitants, a figure below the limit defined as endemic by the World Health Organization (WHO).

The Axis cameras installed at strategic points in the city offer better support for police intelligence and urban security work in the city, enabling military police and other emergency service agencies to track and coordinate logistics for immediate response to incident, as well as to plan proactive and preventive actions. The installed system also means incidents can be resolved more quickly, including those requiring intelligence and investigative work. The system also supports fire department and police response to traffic accidents and monitoring of homeless people and vagrants in situation that place them at risk, which means that more serious incidents can be avoided.

After the cameras had been in use for several months, the video surveillance center received an important group of visitors: 50 curious students involved in a school project called "Jobs," who crowded into the control room to learn about surveillance operations. One 12-year-old student commented, "I thought it was really cool to learn about the work of a military police officer in the city government offices, keeping an eye on all these cameras to make sure people are safe."





Photos: Google Maps, Wilson Ruiz

The shock detection feature integrated with an automatic alarm enables the camera to act automatically as soon as a suspect attempts to cover up or damage to the equipment—even without any operator monitoring the incident at that specific moment.







