

A fool-proof impoundment parking lot.

The Metropolitan Authority of Santiago use Axis cameras to automatically track thousands of cars entering the city center on a daily basis.



Organization:
Metropolitan Authority of Santiago

Location:
Santiago, Chile

Industry segment:
Government

Application:
Safety and security

Axis partners:
Netbee Ltd., Aimetis

Mission

Vehicles involved in traffic violations and taken out of service from the streets of Chile's capital of Santiago – and from 19 nearby districts – all arrive at the same place: an area of approximately 315,000 square yards (the equivalent of 38 soccer fields) with capacity to hold 15,000 vehicles. The impoundment parking lot has begun to play a greater role in transit support for the metropolitan area, as the number of automobiles in Santiago increased by approximately 32% between 2010 and 2014, according to the Ministry of Transportation and Telecommunications. However, vehicles taken out of circulation must be stored securely.

Solution

Faced with the challenges of choosing a cutting-edge technology to make the tasks of vehicle surveillance and security more efficient, it was decided to deploy a solution consisting of 37 total cameras, including 19 AXIS Q6035-E Network Cameras with integrated video management software developed by Aimetis, an Axis partner, that includes video analytics for automatic vehicle tracking.

Result

The solution has brought about numerous benefits. For car owners, Axis cameras provide better vehicle security and protection, assuring that vehicles remain in the same condition as when they were impounded. For auditing purposes, the monitoring system releases authorities from responsibility for the vehicles.



Tracking by the thousands

For certain types of infractions, Chilean traffic law requires that vehicle must be impounded. These laws are enforced by the Carabineros of Chile, a police entity whose purpose is to assist the Metropolitan Authority of Santiago by towing the vehicles; transferring them to the impoundment lot; overseeing them until fines are paid by the offenders; and then completing the vehicle return process.

The tasks of transfer and surveillance of vehicles impounded due to infraction are the responsibility of the Metropolitan Authority of Santiago carried out at the Vehicle Impoundment Center located in the Quilicura district, which has a storage capacity of 15,000 vehicles per day.

"During the impoundment process inside the facility, it is sought to maintain the highest security standards for stored vehicles. For this reason we developed a system based on cutting-edge perimeter security technology with integrated video surveillance analytics," highlights Maximiliano Montenegro, General Manager of the Metropolitan Authority of Santiago.

Its most advance capability is found in its auto-tracking video analytics, functioning on top of a PTZ setup that tracks movement over a perimeter of 100 meters to each side. This is handled by 19 AXIS Q6035-E Network Cameras that monitor for movement 24 hours a day, 365 days a year.

For this task, it was necessary to choose a camera with an image resolution of at least 2 megapixels and a lens with a focal length over 90 millimeters, in order for faces to be identifiable up to 100 yards away. Additionally, features such as excellent movement and zoom response to information sent by the analytics server; tolerance to extreme weather conditions from -40 °C in winter to 40 °C in summer; and good low-light image quality for parking lot areas with very controlled artificial light – made the AXIS Q6035-E a total success on the project.

Complementing these 19 cameras with their integrated Aimetis software and automatic tracking capability, there are 11 fiber-optic switches in operation connected along a 2 mile long perimeter ring. On the side requiring active protection were installed two rings of IP-connected electric perimeter fencing, integrated into a real-time monitoring app.

Perimeter integration

The main advantage of the solution has been the integration of the two technologies to form a solid security foundation at the Metropolitan Authority of Santiago facility: a system of video surveillance based on Axis IP cameras combined with IP connected electric perimeter fencing implemented and integrated by Netbee Limited.

"This way, any intrusion, whether registered via physical contact with the electric fence or by image, is detected automatically in real time by the Axis cameras, which are then able to continue tracking the intruder and also send alerts to the Monitoring Center," highlights Maximiliano Montenegro.

"With the integration of technologies using Aimetis software," explains Oscar Miranda, General Manager of Netbee Limited, "the IP electric fencing, in addition to being a second active barrier, also plays a role in the detection of intrusion along the entire length of its electrified lines. If there's a failure, or contact with any element, or an electric discharge of some sort, the security center is notified and an alarm is triggered. This activates a group of Axis PTZ cameras at the site of the event that automatically begin to scan for movement and display the captured imagery on a monitor."





“We have high security standards that drastically reduce operating costs.”

**Maximiliano Montenegro,
General Manager of the
Metropolitan Authority of
Santiago.**

The project benefits were varied depending on the type of user:

For drivers:

- > The security and surveillance of vehicles maintains a record of their condition when impounded.

For auditors:

- > A new infrastructure for public safety functions with services provided by the Carabineros of Chile and the Ministry of Transportation.
- > Release of authorities from responsibility for the vehicles.
- > Freeing up of space at police stations and commissaries occupied by impounded vehicles.

Future applications of the system include the development of an area for related activities and services. Also, auditors will no longer be limited by system capacity for the impoundment and/or storage of vehicles.

Maximiliano Montenegro explains: "The system allows for enacting strict security standards and at the same time drastically reduces long-term operating costs, since it reduces the number of guards needed on staff; and replacing them with video surveillance cameras ultimately eliminates the probability of mistakes due to human error."



The Metropolitan Authority of Santiago is a project of the Government of Chile's Ministry of Public Works, and is tendered and adjudicated to the private sector through Concessions Law.



About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the global market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform - delivering high value to customers through a global partner network. Axis has long-term relationships with partners and provides them with knowledge and ground-breaking network products in existing and new markets.

Axis has more than 1,900 dedicated employees in more than 40 countries around the world, supported by a network of over 75,000 partners across 179 countries. Founded in 1984, Axis is a Sweden-based company listed on NASDAQ Stockholm under the ticker AXIS.

For more information about Axis, please visit our website www.axis.com.