

Road accidents on Ruta del Maipo curbed by cameras.

A strategic highway in Chile decreased the number of traffic incidents by 40% by adopting Axis cameras to monitor hundreds of kilometers.



Organization:
Ruta del Maipo SSCC

Location:
Santiago, Chile

Industry segment:
Transportation

Application:
Highway safety and security

Axis partners:
Aplica Ingeniería SPA,
Anixter

Mission

Ruta del Maipo, the road that connects Santiago to southern cities, is a key route for the Chilean economy. It's used by drivers who travel either to the south or north of the country, including inter-regional and international cargo transportation vehicles. It's also used by truck drivers who take products from industrial zones to the Metropolitan Region of Santiago and to the ports.

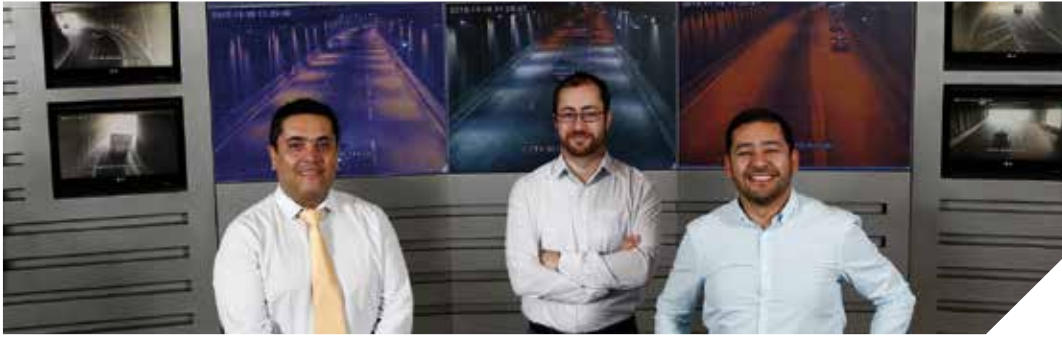
This concession comprises 237 kilometers, which give way to a flow of vehicles that sometimes reaches 3,000 per hour. Thanks to its expedited connection of the metropolitan region with the south of Chile, Maipo helps with the local traffic by incorporating the highest security standards.

Solution

The solution deployed consists of 30 Axis network cameras installed by local company Aplica Ingeniería, an Axis partner, integrated with a video and logistics administration system using video management software. The system uses optic fiber to establish connection with the control room, which in turn is connected to police and emergency services.

Result

The main benefit was the 40% reduction on the number of car accidents by improving the capacity of emergency services to react to events both in a preventive and reactive way using Axis cameras. These advantages were directly translated into better services for drivers who use the highway.



New horizons for business

Chile is one of the better equipped of the Latin American countries when it comes to modern roads. Their administration and maintenance runs through a system of concessions created by the State and operated by the private sector. The aim is to achieve the highest standards in terms of technology and quality of service.

Indeed, Chile's economy is known as one of the most globalized and open to free market in Latin America. And this system of concessions was born as part of the country's economic development, granting a key role for this kind of infrastructure to facilitate the transportation of goods, both for import and export. As an example of its openness, the country has Free Trade Agreements with the largest global markets, including North America, the European Union and Pacific Asia.

In this challenging scenario, Ruta del Maipo is a key highway which connects the capital, Santiago, to southern industrial regions and ports. A smooth 24/7 operation, with minimal interruptions and the highest road security standards, is key to its mission. In order to improve its surveillance coverage to help control and operate hundreds of kilometers of high-speed roads, the most advanced technologies were chosen as an indispensable support for its operations.

"Surveillance cameras provide us with a higher level of security by monitoring the highway 24 hours a day, 365 days a year. Our duty is to offer Traffic Control all the tools they need to execute their role, and therefore support the Concession's mission to keep operational all 237 kilometers of road infrastructure," says Ignacio Gutiérrez, IT and Toll Systems Chief, Ruta del Maipo.

Image as evidence

There can be many types of incidents that put the continuity of road operations at risk, including car accidents, detours, acts of vandalism and traffic jams. Video surveillance plays an important role on keeping control over the road, so the team can react in time and coordinate police and emergency services with efficiency.

"We needed cameras that provided excellent image quality and could generate sharp zoomed images when manipulated from the control room, so that we could have real-time stills and videos of what was happening," adds Gutiérrez.

Ruta del Maipo has 42 toll stations and 168 alternative roads. Each of these places have cameras. "We are gradually migrating from analog technology to IP-based equipment, which offers higher image quality and storage capabilities; this is fundamental to delivering HD-quality evidence of incidents to be used by police and Justice", explains Gutiérrez.

One of the highlights of the project was the first deployment in Chile of AXIS Q6045-E MKII combined with AXIS Q6000-E Network Cameras. This allows operators to supervise two screens simultaneously: on one, they see a 360-degrees, 8-megapixel image of the surroundings, while on another they see the 32x optically-zoomed image of the full HD PTZ camera, catching all details in a single click.



Another important equipment was AXIS P5635-E, also a full HD camera. This model has Electronic Image Stabilization to cancel vibrations – a common problem in highways due to the circulation of heavy vehicles. With stable images, it's also possible to reduce the need for bandwidth and storage, while the performance of video analytics is also improved.

Both cameras offer shock detection, a technology that generates automatic alarms in case of impacts – such as acts of vandalism or as a result of car accidents.

Furthermore, the integration of Axis cameras with the video management software proved to be very important to storing images and administering video surveillance resources, according to Marcelo Poblete, IT technician at Ruta del Maipo.

“To control 237 kilometers of roads is a complex operation. The video surveillance system that we implemented with Axis dome network cameras proved to be indispensable for us to act in time and with a proper response, so as to offer quality service on a safe road, which is positive both for the users and for our company.”

Ignacio Gutiérrez, IT and Toll Systems Chief, Ruta del Maipo.



Images captured by Axis cameras installed along Ruta del Maipo, Chile.

Ruta del Maipo is part of Holding ISA, represented in Chile by Intervial Chile S.A., constituted by 5 companies that manage 5 sections of highways, comprising more than a thousand kilometers in the country.

RUTA DEL MAIPO



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Axis has more than 2,000 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.

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