

From one Carnival to the next.

More than 800 Axis cameras protect the Bahia population, support tourism and enhance events like the World Cup and Olympics.



Organization:

Bahia Secretary of Public Safety

Location:

Bahia, Brazil

Industry segment:

City surveillance

Application:

Urban safety and security

Axis partners:

Cambium Networks,
Digifort

Mission

Bahia has had an intense schedule. Its capital, Salvador, was one of the six host cities of the FIFA Confederations Cup in 2013. In the same year, Costa do Sauipe, north of the capital, set the stage for the World Cup draw. In 2014, Salvador attracted worldwide attention as a World Cup host city, and in the following year hosted one of the qualifying matches for the 2018 World Cup. In addition, the Rio 2016 Olympics will also have soccer matches in the city. At the same time, Bahia welcomes thousands of tourists for Carnival and other festivities throughout the year, with the challenge of ensuring the safety of citizens and tourists in the midst of all of this activity.

Solution

Since 2013, the Bahia Secretary of Public Safety has been modernizing and expanding its video surveillance system with Axis network cameras and software from Digifort, an Axis partner. The old analog system initially received 235 AXIS Q6032-E Network Cameras.

In view of the results, another 400 of the same cameras were purchased the next year, followed by another 165 of the AXIS Q6044-E model. In 2015, 35 cameras were added, with plans to keep expanding.

Result

With many cases solved with the help of imagery, Bahia saw a drop in the number of intentional violent crimes. Operators can now identify a vehicle's license plate up to 400 meters away, allowing fines to be given to perpetrators. The cameras were also a strategic asset in police work involving demonstrations during international events. And Carnival, of course, has been captured in all of its colors in HD quality.



Photo: courtesy of Bahia's government

Start and expansion

The old analog video surveillance system used by the Bahia Secretary of Public Safety had its limitations. According to Lieutenant-Colonel Marcos Oliveira, the cameras' range of vision was short, and the images lost quality for viewing and recording. This made it impossible, for instance, to recover video for processing and helping to identify suspects.

Salvador was the first city to get Axis cameras. The Carnival festivities had cameras in 16 police posts, each with 8 to 10 cameras on average. This allowed the police force to begin responding faster, with the community's approval. There is now a greater focus on prevention, with suspects confronted and led away to police stations, reducing potential aggression. With the use of cameras, various illegal acts were caught and problems were anticipated during Carnival.

Some of these cameras continue to monitor the city's streets throughout the year, since their strategic locations help to keep citizens safe. "The system makes the police force more efficient and effective, with a greater sense of safety for citizens and visitors, and with a much greater range of operation," says the Lieutenant-Coronel.

The images of all of these cameras are viewed both locally and at a central monitoring station. For example, in the district of Pelourinho, the city's "picture postcard", there are 40 cameras monitored simultaneously from the 18th Battalion headquarters and the Integrated Regional Command and Control Center. In contrast to the analog system, the quality of the images can now be scaled up or down in order to optimize traffic.

In view of the results, the project was extended to cities such as Porto Seguro, Candeias and Camaçari, while several cities in Bahia have started sending images from their cameras to Salvador to reinforce local surveillance – such as Feira de Santana, a city with more than 200 Axis cameras installed. "We are taking the technology employed in Salvador, which has helped us reduce crime rates, to the cities of the metropolitan region and to the interior," says Mauricio Teles Barbosa, Secretary of Public Safety.

The plan for the next few Carnivals includes installing 20 cameras in access corridors to the festivities to prohibit the entry of firearms and drugs in the Carnival circuit. There are also plans to take the project to other Salvador districts and cities in the interior, such as Serrinha and Barreiras.

An eye on Black Blocs

At the Confederations Cup, Axis cameras helped to monitor major demonstrations. Troops were mobilized according to needs, and the event at the Fonte Nova arena was conducted safely, as explained by Oliveira: "Using the cameras, we identified ringleaders and stopped acts of vandalism. Everywhere there was a camera, our response was massive to avoid riots and increase citizens' safety." The next big challenge was the World Cup. Most of the games were scheduled during peak traffic times, with major concerns in terms of the flow of vehicles and people. Public demonstrations against the World Cup continued to be monitored by the cameras, including attacks from the so-called "Black Blocs", known for acts of vandalism in public and commercial areas.

The cameras captured the demonstrations from the very outset. Since we already knew the route the groups would take, the police were able to create a barrier to ensure that festivities could be held at the Farol da Barra lighthouse, and that fans could access the Fonte Nova arena," says Oliveira.

After the World Cup, all eyes turned to the 2016 Olympics. The integrated strategic safety plan for the Rio 2016 games, including 10 soccer competitions to be held in Salvador, had almost identical safety measures, although the event was larger in size and shorter in time span. The strategy is to find more and more integration.



Vera Cruz, on the island of Itaparica (green area on the left), is also monitored by Axis cameras, whose images are sent via radio to Salvador (right)
Photos: Carol Garcia, Publicity, Google Maps



Photo: Carol Garcia

“The cameras help to identify various types of crime, in addition to traffic violations. Cameras like this allow planning to optimize the police force’s role in the most violent areas, and to use images both preventively as well as for evidence in shedding light on a crime.”

Lieutenant-Colonel Marcos Oliveira, Secretary of Public Safety of Bahia (SSP-BA)

“This mega operation, successfully put together in the last two years, will be repeated,” says Oliveira, who is also the coordinator of the State Board of Public Safety and Civil Defense for the 2016 Rio Olympic Games in Bahia.

Wireless transmissions

The Bahia Secretary of Public Safety’s first experience with wireless video surveillance was during the final draw of the World Cup in Costa do Sauípe. Here, eight cameras were installed along the Estrada do Coco and Linha Verde roadways, connected via radio links. “It was a short event, but required a lot of attention, mainly in the traffic and entry areas,” recalls the Lieutenant-Colonel.

Years later, a surveillance system was inaugurated in Vera Cruz, a key commercial and tourism area of Bahia on the island of Itaparica, with 8 AXIS Q6044-E Network Cameras and Digifort software. The images are also transmitted via radio from the island to a tower at the Quartel dos Aflitos historic military facility in Salvador, and from there to the Command Center.

The radio model used to carry the signal is the PTP800, from Cambium Networks, an Axis partner. The radio has a capacity of up to 368 Mbps full duplex, and can send signals from many cameras at different distances, depending on the operating frequency. “The distances start at 10 kilometers,” says Marcio Romano, Cambium’s Regional Sales Manager for Brazil.

Technology + people

One of the reasons for the success of the expansion of Bahia’s video surveillance system is the efficiency of the anti-violence campaign – which cannot be achieved just by increasing the number of cameras. “You can’t have more cameras with less staff. While I am installing cameras, I must have a response to what the cameras are showing us,” says Lieutenant Colonel Marcos Oliveira. “What we did was to streamline the use of our human resources for the benefit of the citizens.”

For the Bahia Secretary of Public Safety, the cameras contribute indirectly towards the population’s safety insofar as fewer police are deployed to areas merely with crimes against public property, where the consequences are less serious. “There are cases of people who were caught committing crimes in apparently deserted areas, who later said they had no idea they were being watched,” explains Oliveira.

Furthermore, this strategic management reinforces policing in more active areas, in combination with the cameras. Thus, the police presence is higher in more violent regions, boosting the sense of citizen security.

The response of this combination of technology and the police force can be seen on the streets. On one occasion, the early stages of a vehicle theft in plain daylight were captured by the Axis cameras. In the control room, one of the operators identified a high-speed vehicle in the vicinity, and suspected it might be connected to the crime. The operator generated an alert and guided police on the street to intercept the vehicle, giving a description of its characteristics via radio. The police were able to stop the vehicle, which indeed had been stolen.

Traffic violations

To galvanize cooperation between the police and traffic authorities, the Bahia Secretary of Public Safety is establishing a technical image-sharing agreement with the Salvador City Council. This will allow approximately 90 cameras distributed along major roadways to be viewed live for traffic management purposes, optimizing the use of images in addition to security.

From the Integrated Regional Command and Control Center, operators can identify suspicious vehicles and read the license plate with the naked eye, even with cars which are moving or are far away. “We can read a car’s license plate from 300 to 400 meters away with the naked eye alone,” says Lieutenant-Colonel Oliveira. “Then, we enter the license plate in the system to find out if the car is involved in a theft, robbery or any other crime, and can immediately deploy the closest vehicle to intercept it in some cases.”

Crime on the decline

According to official data, the government of Bahia’s “Pact for Life” program saw a 3.3% decrease in the number of intentional lethal violent crimes in the first 10 months of 2015 compared to the same period in 2014. For example, Camaçari, one of the cities that was allocated Axis cameras, saw a 9% drop in the number of homicides between January and October 2015.



Cambium Networks™
Connecting the Unconnected™



About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the 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 2,100 dedicated employees in more than 50 countries around the world, supported by a global network of over 80,000 partners. 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.