Feira de Santana fights violence with high definition images.

Video surveillance project in Bahia involves more than 200 fixed and mobile cameras from Axis Communications.

Organization:
City Government of Feira de Santana

Location:
Feira de Santana, Bahia, Brazil

Industry segment:
City surveillance

Application:
Urban monitoring

Axis partners:
Wimaxi, Digifort, Radwin

Mission

The municipality of Feira de Santana, Brazil, in the state of Bahia and 100 kilometers from the state capital of Salvador, had 18 analog cameras for its population of more than 600,000. The police could not rely on their low-resolution images to solve crimes. Levels of violence in the city were analyzed, including the districts of São José and Humildes, in order to determine which points to include in a new video surveillance system.

Solution

The project was created by Wimaxi, a systems integrator partner of Axis Communications that specializes in digital cities, using radios from Radwin, another Axis partner. The solution uses 106 AXIS Q6034-E PTZ Network Cameras that can pan, tilt and zoom as they monitor intersections and areas that require inspection, offering 360 degrees. It also uses 96 AXIS P1354-E Network Cameras dedicated to monitoring areas with high human traffic flows, such as hallways, bus stations, and entrances to public buildings.

In all, 202 high-definition cameras are managed by software from Digifort, an Axis partner.

Result

The urban security project included 320 radio points linking 150 schools and 28 public health units, and the 122 public broadband hotspot points, making Feira de Santana one of the largest digital cities of the country. The analog cameras were decommissioned.

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Optical fiber and radio

For Victor Soares Bezerra, Director of Wimaxi, "the choice of high definition digital cameras is critical in order to generate reliable images that can help identify perpetrators of crimes." All images are accessed by the Municipal Guard and the Civil and Military Police at the Secretariat of Violence Prevention, inside a monitoring center with a videowall.

The transmission of high definition images has been made possible adopting a hybrid network system that combines fiber optic backbone and two pre-assembled radio base stations: one in the city center and another in the hills of São José, located 28 km from downtown – an area lacking electricity – where the station is powered by solar and wind power.

The radios that broadcast the camera images were used for more distant locations, where cabled infrastructure cannot reach. Radios from Radwin's 5000 series (point-multipoint) and 2000 series (point-to-point) were chosen, distributed through WDC Networks.

"The current technology of Radwin radios is different from conventional radios," says Marco Santoro, Director of Business Development at WDC. "Because it is asymmetric, it is possible to split the band as needed. For image transmission, it is possible to put, for example, 8 MB for download, for receiving images, and 2 MB for upload, to control the PTZ controls," he explains. Another advantage is that, with the radios, you can save time and, depending on the distance, cost.

For a second phase of the project, a study is being made for the installation of cameras in other districts and the use of video analytical capabilities, such as license plate recognition and automatic intruder detection in restricted areas. These intelligent systems are already supported by the camera models adopted and can be added to Digifort's video management software.

FEIRA DE SANTANA

WiMAXI

Digifort
IP Surveillance System

RADWIN

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