13 floors of high technology.

Public hospital in Belo Horizonte adopts Axis cameras from basement to helipad and achieves improvements in operational indicators.

Organization:
Dr. Célio de Castro
Metropolitan Hospital

Location:
Belo Horizonte, Brazil

Industry segment:
Healthcare

Application:
Safety and security

Axis partners:
Gocil Segurança
Eletrônica, Digifort

Mission

Belo Horizonte, a city with the fourth largest GDP per capita in Brazil, needed to expand its residents' access to hospital services. That's why the city government launched the Dr. Célio de Castro Metropolitan Hospital (HMDCC). Its 13 floors have a built area of 46,000 m², 451 beds, including 80 intensive care beds, and 16 operating theaters. HMDCC sought out technologies to provide patient and employee safety, in addition to achieving operational gains and agility of care in the hospital. Such services are the responsibility of the Novo Metropolitano consortium - which assumed this responsibility through a Public-Private Partnership contract with the city government.

Solution

The hospital's video surveillance solution is designed to provide continuous monitoring of people and environments, 24 hours a day, 365 days a year.

The video surveillance project employs IP video from Axis Communications, with software from Axis partner Digifort. The system uses 276 cameras, including AXIS M1114-E, AXIS M3005-V, AXIS M3007-P and AXIS P5532-E models, on every floor of the building.

Result

The system helps in prevention, immediate response, and recording of various incidents that go beyond security, such as prevention of patient evasion. Another example is being able to quickly move cleaning teams and building maintenance crews to deal with incidents. The images are also used to verify indicators for operations such as registering the day and time of trash collection. The plan is that in the future the cameras will integrate with Integras Gocil, an integrated platform to increase operational efficiency and intelligence in performing specific procedures.

AXIS
COMMUNICATIONS

70938/EN/R1/1708

> "The image quality and equipment reliability give us peace of mind and enhance operational efficiency. The experience has been very positive and is meeting all the hospital's operational needs."

Rogério Thamer, Gocil Technology Director.

IP operation

With a capacity for 2,200 in-patient days per month, of which 1,500 are surgical only, Dr. Célio de Castro Metropolitan Hospital employs more than 1,500 health professionals, plus support and logistics staff, which results in a large number of people on the premises, 24 hours a day. The fully digital video surveillance system uses Axis network cameras installed on all 13 floors of the building.

The hospital's external accesses and parking areas use 53 AXIS M1114-E Fixed Network Cameras. "The model was chosen because the housing is IP66 classified. It has a varifocal lens that goes from 2.8 mm to 8 mm, which allows adjustment of the viewing angle to cover the widest range of scenes, and 1MP resolution," explains Rogério Thamer, Gocil's Director of Technology.

These fixed cameras in outside areas and in the parking lot are supplemented by speed domes for complete coverage. AXIS P5532-E Network Camera enhances viewing with 29x optical zoom and IP66 rating that offers cost-effective installation, since no external enclosure is required. Both the fixed and PTZ cameras are fed by Power over Ethernet, which requires only one cable for power, data transfer and controls.

AXIS M3005-V Network Cameras were installed in all interior spaces. This unit has a compact design that is resistant to vandalism—which is a common problem in places with large numbers of people but which in a hospital can have especially serious consequences. With 2MP resolution, the model offers Corridor Format, a vertically oriented video stream to provide good image quality for areas such as staircases, hallways etc. HMDCC uses a total of 197 cameras of this model.

The elevators also received special attention, with AXIS M3007-P Network Cameras offering fisheye lenses and 5MP resolution. "We chose this model because it is very discrete and offers different view options: a 360° perspective and dewarped views such as panorama, double panorama and quad views, which allows us to analyze the image in detail," says Thamer.

More than security

The video surveillance system is now able to handle various aspects of hospital operations, such as maintenance, cleaning, access control and parking services. Images are stored for 15-30 days depending on their resolution and level of interest.

"The system acts to prevent problems and enable immediate response and recording of a variety of incidents. For example, the images have already been used to prevent patient evasion, for real-time detection of parking lot intrusions, jumping the gate, and even illegal drug use on the hospital's premises, allowing security to respond immediately", explains Gocil's Director of Technology.

The images can also be used as evidence for operational indicators, such as recording trash collection at specified times, since the images show the actual collection.

The images also provide support for needs of the cleaning department. According to Rogério Thamer, there were cases where cleaning and maintenance services were called in due to incidents detected on camera, even before the services were called in from the helpdesk.

In fact, the hospital has come to realize that the images have helped in a wide variety of situations. "Recently, a visitor had his car ticketed on a certain date, when his vehicle was at the hospital and not in the place indicated on the ticket. He was given the image and could use it as evidence that the vehicle was actually at the hospital," he says.

And in the future, the images managed using the Digifort software will be integrated into the Integras Gocil platform at the hospital's command and control center. The system will enable management of cameras, access control, and building automation over a single platform, increasing efficiency and standardizing responses.