

Using video surveillance to identify emergency situations.

A maternity hospital in Ecuador uses cameras to assist patients unable to communicate their needs, as well as for overall security.



Organization:

Alfredo Paulson Women's Hospital

Location:

Guayaquil, Ecuador

Industry segment:

Healthcare

Application:

Patient monitoring

Axis partners:

Melacorp Servicios Integrales, Milestone

Mission

One of the most advanced hospitals in Latin America is located in Guayaquil. This Ecuadorian city has a set of healthcare facilities with a total of 939 beds – including the Alfredo Paulson Women's Hospital – that aim to provide state-of-the-art healthcare services.

This facility deals primarily with obstetrics and gynecology (OBGYN), in addition to 16 other specialized areas, providing services to more than 800 women per day and performing an average of 50 baby deliveries daily – regardless of whether a patient has health insurance or not.

Solution

Axis partner Melacorp devised a network camera system with the hospital's future needs and vision in mind that delivers long-term cost efficiency by using a completely scalable technology. A total of 235 cameras cover over 87,000 square feet over five floors and including the parking areas outside of this new facility that provides specialized attention to women and maternity.

The software chosen for the project was VMS Milestone Expert® 2014, provided by Axis partner, Milestone, that not only allows for the entire system to be interconnected but also offers the option of scalability for the future – to accommodate the hospital's vision over the coming years.

Result

With the implementation of this monitoring system that covers operating rooms, intensive care units and laboratories, among other areas, the entity responsible for managing the hospital achieved two goals: oversight of day-to-day building circulation was improved, as well as the ability to more quickly respond to emergencies in critical hallway areas. These live images help when patients suffer a sudden setback but aren't able to communicate it to the care team.

“We know that it’s a long-term investment in open-source technology that will allow us to expand the project.”

Engineer Freddy Matamoros Espinosa, operations manager at the Women’s Hospital.

A model health system

Junta de Beneficencia de Guayaquil (JBG) is an institution that works in the health field in Ecuador. While at first it focused on providing care exclusively for pregnancies and deliveries, it currently handles other specialized areas as well. The Women’s Hospital, well known as a healthcare pioneer not only in Ecuador but throughout the region, is a part of the Alejandro Mann Hospital Complex. Almost 970,000 square feet of space is dedicated to hospital rooms, outpatient clinics, medical security, laboratories and other care facilities in order to provide quality medical attention.

The center has invested in comprehensive facilities, state-of-the-art medical equipment and the implementation of various systems. These technologies allow the hospital to keep up with demand – while it also plans for future expansion. “The idea of this project was to achieve 15 to 20 years of functionality for the client. The old building relied on an obsolete system of analog cameras, and therefore we invested in a top-level digital system consisting of Axis products,” explains Mauro AVECILLA, the automation and control engineer in charge of the project from Melacorp, an Axis partner, which was responsible for designing and implementing the project.

The center also opted for a video surveillance system that would oversee its extensive daily activity. The continuous flow of visitors includes those with no means to cover their medical expenses, as the Department of Social Work assures equal access to necessary medical attention. Everyone receives the same services, at the same facilities.

24-hour security

The institution oversees the building from a 24-hour Monitoring Center where images are monitored live by specialized security personnel in order to respond to emergency situations as well as provide oversight of hospital staff and patients. For example, patients that need help but who are unable to communicate an emergency are placed in rooms with cameras – and this has become a valuable resource.

The system functions as a means of support for a multi-disciplinary team, because even though the hospital has over 1000 employees, unattended emergencies can arise and the technology allows for identifying and communicating these events, reducing response time to high-risk women and infants. As a result, a total of 553 beds (337 for adults; 216 for infants), 18 operating rooms and 8 delivery rooms are covered in case of any unforeseen event.

A variety of camera models were installed on the project. One of them was AXIS P1354-E Network camera, a fixed camera with Axis’ Lightfinder technology that renders color in almost total darkness. Also chosen was AXIS M3004-V, an ultracompact camera ideal for small spaces and situations when a more discrete installation is required. This model allows for the viewing of vertically-oriented streaming video in 9:16 format by switching to Axis’ Corridor Format, designed for areas such as hallways and stairs.

“This entire project stayed on schedule from the planning stages through placement into operation. There were no delays or setbacks of any kind,” recalls Freddy Matamoros Espinosa, operations manager of the Women’s Hospital. “Also, because the cameras were installed while the building was under construction, they were used to oversee the materials, workers and other employees attending to the hospital.”

