

Choosing sustainability.

The BC Empresarial building in Colombia becomes LEED Gold certified upon implementing PVC-free, low energy-consuming cameras.



Organization:

BC Empresarial

Location:

Barranquilla, Colombia

Industry segment:

Commercial

Application:

Building surveillance and security

Axis partners:

AP Ingeniería, Milestone Systems, Lince Comercial

Mission

Businesses are increasingly becoming more aware of their impact on the environment. BC Empresarial, an office high rise that serves as the Colombian headquarters to many large national and international corporations, was designed from the start with the idea of environmental sustainability in mind. From its inception, the plan was to implement a Building Management System (BMS) and IP video surveillance system that would help to not only increase building security but also further promote the concept of "green entrepreneurship."

Solution

BC Empresarial chose Axis IP cameras with Milestone XProtect® video management software technology, taking into account the scalability, ease of use and durability required, and the need to perform simultaneous, synchronized video searches between cameras integrated with an alert management system.

The cameras are PVC-free and low energy consuming (including integrated infrared models that don't require the installation of lighting). By having PoE in all 60 cameras, it was possible to connect them directly to the switch through a single cable, therefore saving even further in infrastructure.

Result

By using PTZ cameras like AXIS P5414-E that need just a single cable for power and data transmission – and cameras such as AXIS P3364-LV with guaranteed energy efficient, long-lasting infrared LEDs – BC Empresarial was able to install a video surveillance system compatible with its concept of sustainability. The upgraded system has greatly improved and streamlined building operations, allowing for all to be recorded and audited – and ultimately contributing to a greater sense of security.

“We installed IP video surveillance technologies based on an open architecture concept and building automation systems that monitor and control overall building operations.”

Naisir Abdala, representative of AP Engineering.

Less energy than a single LED

BC Empresarial has a square area of approximately 130,000 square feet over 19 floors and hosts over 1500 daily visitors including workers and the general public. It has become the first LEED Gold certified building on the Caribbean coast of Colombia as a result of its design based on the idea of sustainability. All Axis cameras utilize Power over Ethernet (PoE), simplifying installation while reducing infrastructure costs.

Among other equipment installed in the building were 24 AXIS P3364-LV cameras that consume only 5.9W of power when infrared is deactivated, and 12.1W with IR activated up to a distance of 100 feet. Typically, a 100-foot IR range such as used by this camera consumes 50W, representing 8x more power consumption than AXIS P3364-LV, which is also PVC-free.

For compatibility with the building's high-quality finishing and interior design, AXIS P5414-E PTZ Network Camera was chosen. Also PVC-free, its innovative design provides direct installation with no need for a mounting arm, blending perfectly with the environment. The model earned Axis a Red Dot Award for product design, as a result of its outstanding ability to remain camouflaged on a building's facade. The built-in mounting support eliminates the need for additional hardware, resulting in faster and easier installation – and thus considerable cost savings.

The project also included 29 palm-sized, ultra-compact AXIS M3004-V Network Cameras. Their 2.2W maximum energy consumption is the lowest among all existent Axis cameras. In comparison, a single LED light typically consumes 6W.

AXIS P3384-V, ideal for demanding lighting conditions and also PVC-free, utilizes Lightfinder technology that enables the camera with high sensitivity for outstanding performance in low light – and the ability to render images in color at night, without the need for additional lighting.

For the implementation process, a training area was set up where operators could receive instruction on how to perform synchronized and simultaneous video searches, serve as an alarm administrator and learn other functions that contribute significantly to building security.

Operational efficiency and sustainability

One of the greatest challenges of the initiative was to fulfill client requirements for a completely sustainable system that would bring energy savings and achieve operational efficiency to the levels required to obtain certification. “For this building, an IP video surveillance system was designed based on an open platform that is both scalable and easy to use,” explains Naisir Abdala, a representative of AP Engineering, an Axis partner.

Just a single operator is required to manage all building systems, as a result of the operations and management functions provided by the XProtect video management platform. Additionally, the use of an open architecture framework ensures that upgrades will require no additional long-term investment.

