Turning up the heat on security.

Axis thermal cameras safeguard the grounds of
Argentina's exclusive Highland Park Country Club.

Organization:
Highland Park Country
Club

Location:
Del Viso, partido de Pilar,
Argentina

Application:
Safety and security,
perimeter protection

Axis partner:
Axial Security

Mission

Highland Park Country Club, a 40-minute drive north-
east from Buenos Aires, is an exclusive country club
located in the district of Pilar. The club's grounds cover
approximately 650 acres, of which almost half is green
space. Families that come to live among this natural
space are seeking this type of lifestyle that provides
many recreational opportunities – within a safe
environment. Thus, in order to further improve security,
the country club's directors contracted the services of
Axial Security for the deployment of an upgrade to its
surveillance system technology.

Solution

Highland's vast amount of acreage required a compre-
hensive video surveillance technology solution to handle
monitoring of the entire perimeter of the grounds, day
and night. Among the technological innovations offered
in thermal cameras from Axis Communications, the club
opted for those capable of delivering a wide dynamic
range under all lighting conditions.

The project was implemented by Axial Security, an Axis
partner, and it features "Cross Line Detection" video
analytics – that run within the cameras themselves –
capable of identifying objects in motion via intersection
with a virtual line and automatically activating an alert.

Result

Comprehensive oversight of perimeter activity was
achieved with the installation of the new cameras,
making it possible to provide coverage of one flat
expanse of land measuring 365 square yards, and
another area of over 200 square yards. In addition, an
audio module was integrated along with a smallspeaker
amplifier in case of the need to verbally communicate
with someone, or to emit an alarm.

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> "After conducting several tests, we determined that the thermal cameras from Axis were the best choice to satisfy our need for high quality detection along with comprehensive coverage."
>
> Luis Bitocco, Systems Manager at Highland Park Country Club.

Flow control

Security of the extensive perimeter area improved dramatically. The technological capabilities of AXIS Q1921-E installed around one perimeter of the country club allowed for 24-hour monitoring of the area for people and objects under adverse conditions such as the presence of smoke, fog or dust.

Besides having no need for an additional light source as a result of their ability to create images from heat patterns emitted from an object, vehicle or person, thermal cameras require minimal storage capacity and low bandwidth. Their compatibility with various video compression tools was also an important aspect considering the large number of cameras distributed throughout this exclusive club.

Axis thermal cameras also incorporate a built-in heater for the window to withstand harsh weather conditions, delivering an advanced array of capabilities that have resulted in an immediate improvement in security. "Besides being easy to install and manage, the security work we are able to accomplish with them is high level. Although we have not yet detected any incidents, we are able to guarantee secure control of the perimeter areas," says Highland Park's systems manager, Luis Bitocco.

Another significant factor for the client when it came to making a purchasing decision was the ability to upgrade or optimize the surveillance system by incorporating audio and video elements, enabling personnel to more effectively carry out security duties under all conditions. On this project an integrated AXIS P8221 audio module was added, providing 8 configurable input/output ports to connect sensors for activating alarms, etc. It also adds support for Power over Ethernet (PoE), making installation easy, cost-effective and reliable.

A member of the Axis technical team in South America was on site at the country club in order to ensure that the entire system was fully operational. "We fine-tuned the functionality of the thermal cameras and their integration with the audio alarms that sound at the control center end," recounts Rodrigo Sanchez, Sales Engineer at Axis Communications. "But overall, everything was installed very well."

In addition, an integrated NVR system that allows for network video recording, analysis and reproduction was installed, enabling optimum performance throughout the entire network of cameras.

For Iván Abrigo, director of Axial Security, an Axis partner in Argentina, the project for Highland Park was the first in which they utilized VAPIX, an Axis open-source application programming interface (API) for achieving integration with other systems. In this case, integration was between the audio system and the Cross Line Detection analytics system that detects moving objects via their intersection with a virtual line, automatically activating an event.

"When there's an intrusion, or if it happens that someone crosses a line of detection set by the client, the Cross Line Detection analytics embedded within the thermal camera itself capture the movement," explains Iván Abrigo, director of Axial Security. "That triggers an alarm transmitted via TCP/IP to the control room located 1.2 miles from the camera. In the control room, the audio is automatically broadcasted, announcing the intrusion and alerting the operators on duty so that the entire complex will be on the alert for any potential problems. And all this comes together as a result of the programming capabilities of VAPIX," he says.

According to Abrigo, "This open-source library is a gamechanger because many other brands don't have this feature which, in the end, guarantees much more installation flexibility."