Glencairn Museum, Bryn Athyn, Pennsylvania

Glencairn Museum: A Treasure Trove of History

Located about 20 miles northeast of Philadelphia, Glencairn Museum is home to an impressive collection of religious artifacts from around the world. The museum is part of the Bryn Athyn Historic District, a National Historic Landmark that also includes the Bryn Athyn Cathedral and Cairnwood Estate. Erected between 1928 and 1939, the Glencairn Museum features a Romanesque-style architecture and consists of 90 rooms on 11 floors. Opened in the early 1980s, the museum boasts a collection of 8,000 artifacts, depicting religions from the time of ancient Egypt to Christianity, Islam, Buddhism and various other faiths. Some of the museum's most notable pieces include 11th capitalize stained glass from the Abbey of St. Denis and a life-sized statue of the goddess Minerva.

Aesthetics: A primary concern

Having never had a surveillance system in the past, the administration at Glencairn knew it was time to update the museum with a state-of-the-art video solution to provide security. However, it was important that the solution also blends seamlessly into the building's surroundings. According to Drew Nehlig, Project Manager of

Historic Buildings for the Academy of the New Church, which manages the site, the organization reviewed three or four camera vendors over the last several years but none met the stringent needs of the museum. That is, until they were introduced to MOBOTIX.

"We are a museum in a museum," Nehlig explains. "The building is unique with lots of great aesthetics in it, and it was going to be a real trick to install cameras, conceal the devices and run wires. MOBOTIX offered technologies that streamlined the installation process, limited infrastructure requirements and fit in with our existing environment.
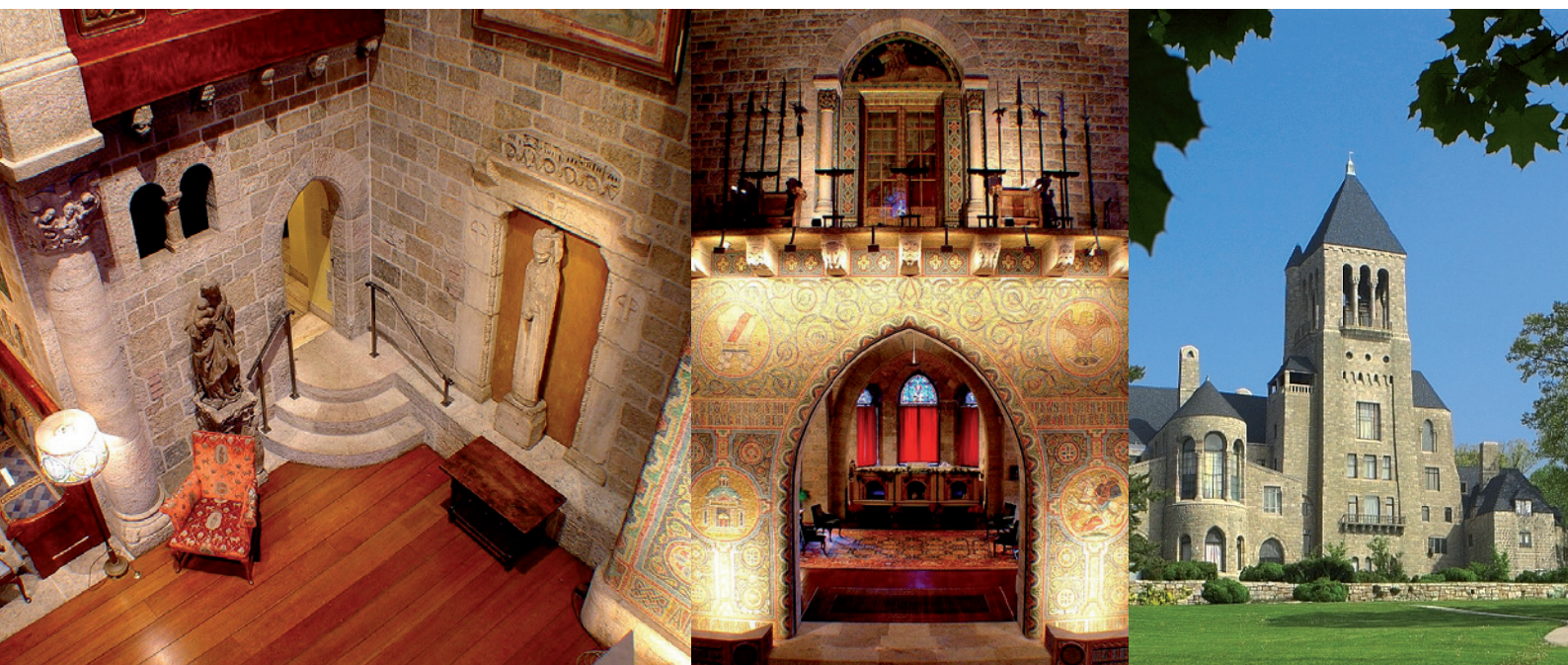
The administration at Glencairn saw a demonstration of the capabilities of the MOBOTIX cameras, and Nehlig says the high-resolution video surveillance solution "blew everybody else out of the water." Of course, more work was yet to be done in terms of raising funds and building a robust IT network to support the new MOBOTIX system.

"As a museum, security is always a concern," adds Nehlig. "Our administration was pushing for new technologies to enhance the protection of our unique collections. We have a secondary school and a college across the street that we're a part of and, traditionally, they have installed what you would consider 'typical' camera systems. But once they saw the capabilities of the MOBOTIX system, they copied us and installed their own MOBOTIX solution."

Building the backbone

To get the surveillance coverage officials wanted, the museum installed 49 new MOBOTIX cameras in the first phase of the project, including the Q25 Hemispheric IP dome, S15D FlexMount and MonoDome D25.

The new D25, S15D and Q25 5-megapixel IP camera models deliver high-contrast images without motion blur, even in poorly illuminated environments. As a result, the devices are more light sensitive and have twice as many pixels as Full HD.

BeyondHumanVision

MOBOTIX

Photos: © Glencairn Museum, Bryn Athyn, Pennsylvania

Building the backbone

The D25 is a compact dome camera designed for indoor and outdoor use that can also be equipped with vandalism protection. The S15D FlexMount is a weatherproof IP camera with two miniature sensor modules. Thanks to the hemispheric dual lens, two separate rooms can be secured simultaneously without any blind spots.

The hemispheric Q25 delivers 180-degree panoramic images with further improved details. The panoramic image technology uses a single camera to secure an entire room without any blind spots, ensuring a better overview than several individual cameras.

All MOBOTIX cameras are based on the decentralized concept. All recording can take place internally on an SD card, or externally on a USB stick or via the IP network on NAS hard drives. The recording of the cameras themselves via

the network makes it possible to use up to 10 times more cameras per server, compared to the central VMS based recording of the competitors. No PC or additional software is required.

Before the cameras could be installed at Glencairn, the museum invested in a new, more robust network infrastructure to replace the existing IT backbone, which was limited in terms of available bandwidth. The new video system is completely Power-over-Ethernet (PoE), and the museum ran fiber optic cabling throughout the building to six individual node locations. There are PoE switches within those nodes, which are all connected via fiber to the server. The switches can be expanded as the museum scales the camera network.

"In the future, adding cameras will be very economical due to the system's inherent scalability. If we needed, we could probably

double or triple our camera count on the existing IT backbone right now," explains Nehlig.

Nehlig says their integrator on the project, Feasterville, Pa.-based Starlight Digital Media, was vital to the success of the installation and responsible for designing the network. Although a separate electrical contractor ran the cabling, Nehlig credits Starlight with being able to set up the switches, servers and cameras to maximize system efficiency and surveillance coverage.

High-resolution and flexibility
Now that new MOBOTIX system was up and running, Nehlig says he is very happy with the image clarity and functionality of the system. The museum also benefits from remote viewing and management options, allowing operators to change camera settings remotely.

High-resolution and flexibility

With the installation of a new fiber optic network and nearly 50 MOBOTIX cameras completing phase one of this project, Nehlig says he expects they will double the camera count over the next couple of years. In fact, the servers and PoE switches were all purchased with future scalability in mind.

Installed in about four and half months, the MOBOTIX surveillance system is already proving its value at Glencairn.

"We haven't had any major break-ins, but we've had situations in the museum that you typically run into with guests and vendors in which we've pulled the video footage and said, 'Well, that's not exactly what happened.' If somebody upstairs calls me and says, 'Can you go back and look at this?' Within a couple of minutes I have an answer for them," concludes Nehlig.

MOBOTIX

MOBOTIX has developed and manufactured IP video systems, video management and analysis software in Germany since 2000.

MOBOTIX stands out for its **high level of reliability**. All outdoor cameras are subjected to a stress test for temperatures between -30°C and +60°C (-22°F and +140°F). Without additional components, without heating or cooling and with no moving parts (for example auto iris), they are virtually maintenance free.

MOBOTIX delivers a **perfectly matched package**, starting with the microSD card for storage management and HD audio (microphone and speaker) with VoIP telephony through video analysis, a professional video management system and motion detection software reducing false alarms.

The **decentralized architecture** means that a central computer is not required and the network load is minimal. The intelligent cameras from MOBOTIX process and store image data themselves, trigger events and, in the event of remote access, manage the frame rate and resolution depending on the available bandwidth.

The **6MP Moonlight sensors** and complementary **thermal imaging technology** ensure reliable detection of moving objects, even under the most challenging light conditions and over long distances. As a result, it is possible to cover large areas with just a few cameras. Less power cabling, less IT infrastructure and fewer additional light sources are needed. MOBOTIX cameras are powered using standard PoE and do not require more than 4-5 watts.
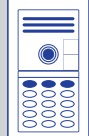
An intelligent IP video system from MOBOTIX allows you to **reduce total costs**. The investment pays for itself after a short time and the free-of-charge software and updates ensure it is a future-proof investment.

Outdoor Dual Lens

M15/16 AllroundDual	S15/16 FlexMount	D15/16 DualDome
Robust for extreme conditions	Flexible dual camera	Modular dual camera

Thermal

M15/16 Thermal	S15/16 DualThermal
Thermal dual	Thermal dual

Outdoor Single Lens

M25/26 Allround	S15M/26 FlexMount	Q25/26 Hemispheric	D25/26 Dome
Robust for extreme conditions	Discreet, video analysis	Discreet, video analysis	Modular Fix dome

Indoor

i25/26 Panorama	c25/26 Hemispheric	p25/26 Allround	v25/26 MiniDome
180° hemispheric	Discreet, video analysis	Modular ceiling camera	Vandalism camera

Door Modules

Camera	BellRFID	Keypad

MxDisplay+

Remote Station

Door Sets

Double Frame	Triple Frame

Retailer information:

MOBOTIX