The Mall at Short Hills, USA
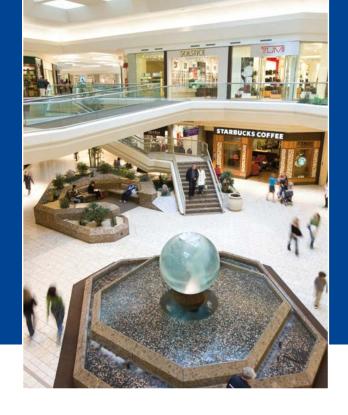
MOBOTIX

CASE STUDY

1.3-Million-Square-Foot Mall Secured By MOBOTIX IP Video Systems

The Mall at Short Hills is an upscale shopping center in Short Hills, N.J., that features more than 160 specialty stores, including Neiman Marcus, Nordstrom and Bloomingdale's. The 1.3-million-square-foot mall was built in the early 1960s and was transformed from an open-air shopping center into an enclosed structure in 1980.

The Surveillance Need

Taubman Corporate, the company that manages The Mall at Short Hills, recognized a need for a cohesive, networked security system throughout the sprawling facility to better protect customers, tenants and employees, while safeguarding the mall itself from vandalism and crime. The development company also sought a system that would provide high-quality video to serve as evidence of incidents, whether criminal and liability related.

With an influx in active shooter incidents at New Jersey-area malls, security is of utmost importance. The Mall at Short Hills previously had an analog DVR-based video security system in place, but it was quickly reaching end-of-life. Management agreed to upgrade to a state-of-the-art digital video surveillance solution that would provide full coverage of critical areas, remote access to video and advanced intelligence.

Security-Vision-Systems

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Full Coverage In High Resolution

A Technology Overhaul

The Mall at Short Hills partnered with systems integrator MTS Intelligent Surveillance Solutions to update its surveillance network. MTS designed the system with dedicated network architecture. "The mall was looking to create a new IP video surveillance solution to provide 100-percent coverage of critical areas," said Rob Merchant, MTS. "We designed a digital video surveillance solution based on an open platform to allow it to scale as needed."

The video system leverages MOBOTIX IP video surveillance solutions, Pivot3 network-attached storage for long-term recording, and robust systems management tools to provide new levels of flexibility. Both analog and IP cameras are supported, allowing the mall to transition to an IP system over time while leveraging networked cameras in high-traffic areas.

Nearly 75 MOBOTIX DualDome D15 megapixel cameras provide day and night surveillance capabilities as well as the flexibility for operators to pan, tilt and zoom to specific areas when needed. DualDome cameras feature two lenses for 360-degree surveillance, and The Mall at Short Hills has benefited from this feature because the lenses are designed to operate independently. Since each lens acts as a separate camera, the overall camera count was greatly reduced, not only helping maintain the aesthetic appeal of the mall, but resulting in significant cost savings.

Better yet, each camera required only one wire run, which reduced wiring costs by 50 percent.

After the initial phase of the project was complete, the mall experienced an incident in which an individual was carjacked and murdered. Police were able to rapidly solve the case with the high-resolution camera footage, but the event prompted further upgrades. Now, MTS is installing 15 D15s in the parking areas as a proactive response to increase security and awareness at the mall. The system's expansion also was driven by a need to protect from fraudulent slips and falls.

When it comes to storing the video, MOBOTIX cameras provide a distinct advantage. Mall security officials can reduce the frame rate if needed but store the higher-resolution video on the camera. "This is always an advantage with MOBOTIX," Merchant said.

Merchant and his team also are installing a wireless network, which will serve as complimentary Wi-Fi for shoppers. The network also will be used to increase the mobility of its security team. Mall security will be able to patrol with tablets and see live camera views. In addition, The Mall at Short Hills is installing outdoor directional Wi-Fi to help mall management, police and first responders in the event they need to locate someone during a situation. Local police also will have access to the mall's cameras to

realize enhanced situational awareness in the event of a crime. From anywhere on the property, officials will be able to tap into a very high-speed link to the command center.

The mall leverages MxControlCenter, an easy-to-use video management software package provided by MOBOTIX free of charge. It allows designated users to tap into valuable management features such as simple configuration and installation, a layout editor for floor plans, and a user-friendly interface and camera view. MxControlCenter ensures secure access to video footage, only allowing authorized users to access the surveillance network based on pre-assigned access privileges.

Pivot3 vSTAC appliances capture video images and host the video management software through the use of virtualization. The scale-out nature of the Pivot3 solution ensures that the performance and capacity of the system can handle the demands of incoming video streams and offer investment protection over time as the deployment grows.

At Short Hills, Pivot3 appliances offer up to 96 TB of storage, fully managed through an SNMP platform. On a typical day, more than 2 TB of video is written to disk. But as the needs and risk profile of a mall evolves, the Pivot3 scale-out system has the flexibility to add capacity and performance without disruption simply by adding appliances over time.

Looking to the Future

It was important to mall officials that the new system is able to grow and adapt as The Mall at Short Hills changes over the years. MTS specifically designed the system so that management can scale the number of cameras, as well as camera locations, storage and capability, as needed. Now, the mall can grow its system and continue to upgrade technology over time.

Since the management company operates 27 different properties, and has nine in development, the company wanted the surveillance system at The Mall at Short Hills to become a model for its other mall facilities. MTS took this goal into consideration during the design phase; now, the system will be replicated at other locations to provide the same level of security and protection that it does at Short Hills.

The mall continuously deploys new systems to improve the quality of its video surveillance footage. In particular, the D15 has improved frame rate. "It's been a constant investment on the center's part," Merchant said. "And the facility plans to continue to enhance the system to ensure the highest level of security for years to come."

T25 · M15 · D15 · M25 · D25 · Q25 · i25 · S15 · MxDisplay

MOBOTIX – Made in Germany:
Innovative Technology, Reduced Total Costs

The German company MOBOTIX AG is known as the leading pioneer in network camera technology since its founding in 1999, and its decentralized concept has made high-resolution video systems cost-efficient.

Increased Resolution Reduces Amount Of Cameras Needed
High-resolution sensors of up to 6 megapixels provide a better overview and allow an entire room to be monitored with just one camera.

Reduced Installation Costs At Any Distance
A standard Ethernet connection enables the use of readily available IT network components, such as copper, optical fiber, and wireless.

Intelligent Cameras Reduce The Number Of Recording Devices
The decentralized MOBOTIX concept makes it possible to store data from approximately ten times more cameras to a single storage device than is normally possible.

Event-Controlled Image Format Minimizes Storage Costs
Automatic image adjustment (frame rate, size) based on movement, sound or signal input reduces the bandwidth and storage requirements.

Low Power Costs, No Extra Heating
Anti-fogging without heating allows usage of standard PoE technology to power the system via Ethernet or two-wire cable, saving power cabling costs.

Backup Power Supply Costs Reduced By Over 80 Percent
Low power consumption, approximately four watts, enables year-round PoE (no heating required) with one centralized UPS from installation room using the network cabling.

Robust And Practically Maintenance-Free
Fiberglass-reinforced composite housing with built-in cable protection and no mechanical moving parts (no auto iris) guarantees longevity.

Software For Thousands Of Cameras And Storage Devices Included
The right premium user interface software for every application: MxEasy for compact video solutions, MxManagementCenter for the professional control center and the MOBOTIX App for on the go.

Unlimited Scalability And High Return On Investment
While in use, more cameras and storage can be added at any time; image format, frame rate & recording parameters are camera specific.

Additional Functions And Other Extras Included
Audio support, lens, wall mount and weatherproof housing (-30 to +60 °C; -22 to +140 °F) are included; microphone & speaker available in almost all models.

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