

JFK AIRPORT TERMINAL ONE



JFK Terminal One Upgrades to IP Video for Improved Functionality, Image Quality

The Challenge

Previously, Terminal One at JFK International Airport relied on a limited analog surveillance system and a separate, older IP system that were independent of each other. Both were inadequate and lacked the functionality that Terminal One needed. Users could only view video from specific workstations, it was difficult to replace or add cameras, and the system did not integrate easily with other systems. Migrating the terminal's old analog system to an advanced IP video management software (VMS) platform was no small feat. Due to the airport's high-security environment, the system and all of its cameras had to remain operational around the clock throughout the migration.

The Solution

To design and implement a new solution, the airport worked with security integrator Media Wire, LLC. The New York-based integrator designed and implemented a Milestone XProtect Corporate VMS system to manage 500 to 600 cameras, including the installation of 160 new Axis cameras. Providing users with greater access to video, the Milestone Mobile client is used by air terminal managers to view video on their mobile devices. The Milestone VMS is integrated with Honeywell's Pro-Watch access control system so all alarms and door information can be easily accessed from one centralized system.

Organization

JFK Airport Terminal One

Location

New York, NY

Industry Segment

Transportation

System Integrator(s)

Media Wire, LLC

Milestone Partner(s)

Axis, Honeywell,

Solution

XProtect Corporate VMS, Interconnect, Husky NVRs

Number of cameras

600+

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Additionally, the advanced VMS integrates via Milestone Interconnect with the video from the Milestone Husky network video recorders (NVRs) used by the terminal’s restaurants and vendors, enabling broader coverage of the entire terminal.

Advantages

Milestone’s IP VMS provided a significant upgrade to the terminal’s analog system and greatly enhanced the ability to monitor and efficiently respond to incidents. The system’s search capabilities enable users to quickly find and identify camera views. It provides users with the flexibility to view any of the nearly 600 cameras from any workstation throughout the airport — even from their mobile devices.

Greater video coverage means the terminal can be protected against a range of threats including security breaches, aggressive actions and injury and liability issues. With many agencies requiring access to the system, from the FBI to building maintenance, the terminal’s new system is more user friendly, making it much easier for operators to manage.

Institution Profile

JFK International Airport has been at the forefront of aviation since its first commercial flight in 1948. Located 12 miles southeast of Lower Manhattan, the airport has expanded to include six airline terminals operated by the Port Authority of New York. Terminal One opened in 1998 and includes 11 gates and two hardstands controlled by its own ramp control tower, which is equipped with state-of-the-art radio communications, weather information and gate video cameras. It is one of two terminals at JFK that has the capability to handle the world’s largest passenger aircraft, the Airbus A380 aircraft. In 2013, Terminal One had 2.5 million international passengers.

According to Timo Kapulainen, Maintenance Supervisor at Ekokem, the innovative initiative has been very well received by Ekokem’s customers: “Our customers are very satisfied with the initiative and it has helped raise customer satisfaction. It sends a very positive signal about us keeping our promises and being totally transparent”.

Migrating an Around-the-Clock System

The biggest challenge of migrating JFK’s Terminal One analog system to IP was keeping all cameras operational throughout the transition. To do so, technicians took each live camera and connected it to an additional working system. In the process, video from the camera was recorded by both systems. Once the camera was migrated and ported to the Milestone VMS, the camera was then decommissioned from the analog system.



The Milestone system is so intuitive, it’s been easy for users to learn how to operate the features quickly.

Laszlo Tordai,
Owner & Engineer,
Media Wire, LLC



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Migrating Terminal One's system required upgrades to ensure a solid solution from the ground up. New high-speed fiber optics, switches, PoE injectors, software, workstations and operating systems were installed. The terminal has close to one Petabyte of storage due to both security requirements and powerful analytics from Agent Vi that are used on recorded video, and to search across cameras. Much of the management structure is built on existing Dell servers (approximately 14 recording servers as well as the supporting storage), but all new servers are being custom built with close support from Milestone Engineering.

Since the migration involved multiple VMS clients managing video from cameras throughout the terminal, technicians set up a multicasting network to reduce bandwidth. It allows multiple users to view the same video stream without taxing the server, which was lacking with the old analog system.

"We installed an extensive 10 Gig fiber network to support the bandwidth needed for current and future cameras," added Tordai. "All cameras provide video at their maximum resolutions and frame rates, no corners are cut."

Milestone Open Platform Meets Tough Demands

The Milestone VMS was selected in large part due to its easy integration with nearly any third-party system. In Terminal One the new VMS had to support older analog systems and cameras via encoders, also supporting a variety of IP cameras, integrating with access control and the NVRs used by vendors. The result has been a system that provides JFK International Airport with greater access to video and advanced capabilities, including viewing video on their mobile devices.

"The versatility of the system is great and it's so easy to use," said the Head of Security for Terminal One Management (name omitted for security reasons). "From a security standpoint, we can capture what we need on a daily basis and it gives us great visibility into areas we never had before."

The Milestone system is easily scalable and can accommodate additional or new cameras at any time. Terminal One's new Axis cameras easily integrated with the Milestone system and require less bandwidth that better allow the security team to meet the airport's lengthy storage requirements. Since Axis also provides a wide range of cameras for many applications, Tordai says he was able to use them in many areas where lighting was a concern, like near windows or in stairwells.

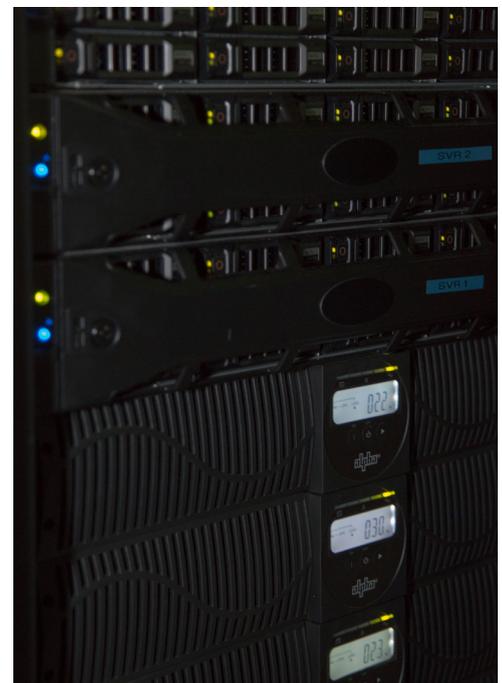
Robust, Easy-to-Use System

Terminal One's Milestone VMS provides broader coverage and features that make it easier to automatically monitor possible security concerns, such as an item left unattended. It also allows the security team to watch for suspicious people, monitor situations and investigate after the fact.



We installed an extensive, 10-Gig fiber network to support the bandwidth needed for current and future cameras.

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“Milestone is a great system and a drastic improvement over our previous analog system,” added the Head of Security for Terminal One Management. “It allows us to deploy tools that are allowing us to mitigate risk and do our jobs more efficiently.”

The Milestone VMS provides users with shortcuts and keyboard assignments so they can easily change views or create camera setback positions. Through integration with its access control system, the display system will also automatically show all alarms and doors being accessed.

A Soaring Success with Tech Support

Tordai added that Milestone has provided excellent technical support throughout the installation. Cameras are currently being installed in jet bridges, the enclosed connectors that extend from a terminal gate to the airplane. About 10 cameras are being installed in each jet bridge and when they ran into a software issue, Milestone addressed it quickly.

“I contacted Milestone tech support and they got it done,” said Tordai. “The tech took it over and did a great job at solving the problem quickly.”

He says the airport has been extremely pleased with the Milestone VMS and Axis cameras. About 160 new Axis cameras are being installed throughout the terminal for better security and liability purposes.

About Media Wire, LLC

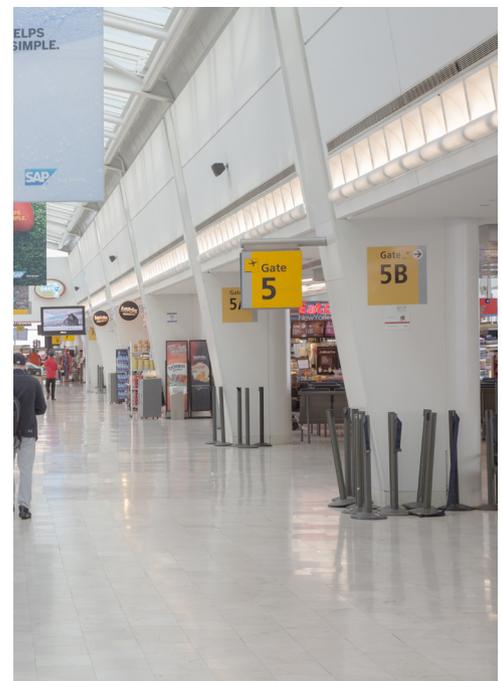
Media Wire, LLC is a commercial and residential security IP security specialist. Based in Coram, New York, Media Wire is licensed by the state to install monitoring devices, surveillance cameras, intercoms, access controls, alarms, audio/video including home theaters and many aspects of security systems for airports, buildings, facilities, construction sites, residences, hotels, parking lots, recycling services and more.

To learn more, visit: www.digitalipsecurity.com.



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Terminal One Management**

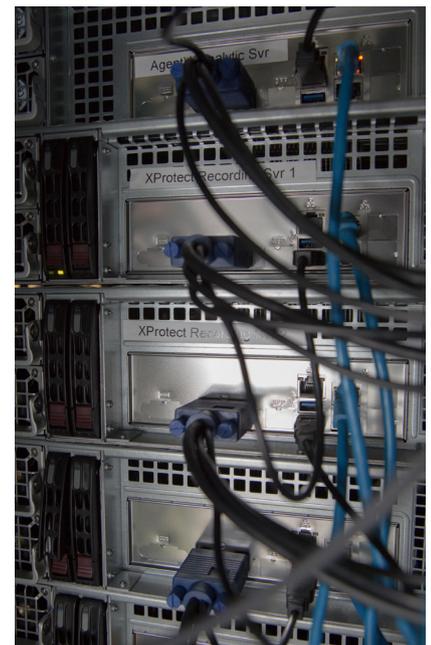
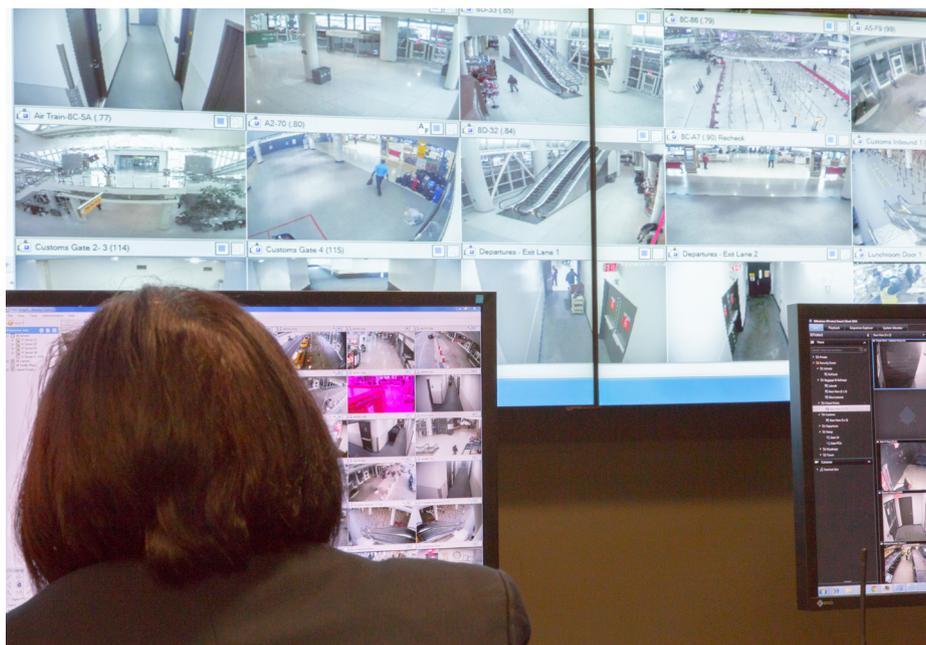


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Milestone Systems is a global industry leader in open platform IP video management software, founded in 1998 and now operating as a stand-alone company in the Canon Group. Milestone technology is easy to manage, reliable and proven in thousands of customer installations, providing flexible choices in network hardware and integrations with other systems. Sold through partners in more than 100 countries, Milestone solutions help organizations to manage risks, protect people and assets, optimize processes and reduce costs.

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