

Case Study: Memphis Tennessee Airport



LARGE AIRPORT IN MEMPHIS STREAMLINES TRAFFIC FLOW AND UPGRADES SECURITY WITH PELCO IP SURVEILLANCE SOLUTIONS

The Customer

When airline travel first started in America in the early part of the 20th century, most airports consisted of a sod field runway, a few hangars and perhaps 15 passengers a day. Now, one hundred years later, millions of people are flying everyday in commercial airlines and air freight planes are transporting everything that can be bought and sold. Keeping up with the expansive growth in commercial and freight air travel has been a challenge for many airports such as the 2nd busiest cargo airport in the world, located in Memphis, Tennessee. Here, renovations, expansions and upgrades will soon be underway to improve aircraft access to the terminal, enhance the customer experience with safer and more modern facilities – and ensure they are ready for the next growth phase.

The Challenge

With so many passengers coming and going from the airport, the customer sees a substantial number of vehicles entering and exiting the facility. The airport undertook a massive addition to their grounds, building a Ground Transportation Center (GTC). This allowed the Airport Authority to offer economy long term parking at competitive rates, and also allowed all car rental facilities to be moved onto airport property. They had previously been off property requiring customers to be bused to and from the facility. The airport's leadership had the foresight to know that the sheer volume of traffic can at times cause backups and other issues within the GTC that would require personnel to be deployed. To streamline this process and ensure staff could be deployed quickly to a specific parking floor or location to alleviate the problem, the airport management had a video surveillance system installed within the GTC. The Pelco system installed in the GTC was a significant improvement over the rest of the airport's aging analog system, and it provided a path to upgrade that system to accommodate the airport's continued growth and need for increased security.



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The Solution

While the purpose of the new video system was a traffic-control application to monitor the GTC, the airport understood that it would be selecting a new Video Management System (VMS) solution to address the entire airport's needs, including security and surveillance. Management's criteria for evaluating new solutions included establishing certification compliance that required integrators to complete specialized training. Additionally, all proposals were required to include proof of concept from other airports using a particular manufacturer's solution.

After a rigorous evaluation process that was almost entirely guided by the IT department, Pelco by Schneider Electric IP cameras and recording solution were selected. The security system is capable of archiving video for 30 days at 30 images per second. The airport also selected Pelco's Endura™ VMS to manage the system, and provide valuable analytics, including people-counting and license plate capture.

Prior to completion of the GTC system, the airport decided to embark on an ambitious second phase, which involved replacing its access control, parking and revenue and analog camera systems throughout the entire airport property. The enhancement included deployment of new network infrastructure with wireless access points and cellular repeaters. To create a fully integrated security solution, Phase 2 also included expanding the Endura VMS to manage over 1,100 Pelco Spectra™ PTZ IP Cameras and Sarix™ Fixed IP Cameras.

The airport is currently in the midst of upgrading its Endura VMS to VideoXpert™ Enterprise, Pelco's latest VMS offering designed for large-scale installations. VideoXpert Enterprise delivers enhanced video management, providing a number of functions to improve effectiveness and efficiency, support increased recording capabilities and enable broader integrations. The solution also includes more advanced video analytics to further aid parking operations and the security staff's ability to gather information in the event of an incident. Once the VMS transition is complete, the airport will be able to incorporate Schneider Electric's AccessXpert Enterprise Security Solution, which offers mobile and cloud security tools to improve access control system management and integration with the VMS.

Once the traffic monitoring system had been deployed, its potential security applications quickly became apparent. In fact, the new system has been used far more often for security purposes than anticipated, and has proven valuable in a number of incidents including several instances of individuals driving through or breaking parking arm gates to avoid paying fees. In these situations, cameras captured license plate information, allowing the drivers to be identified and held responsible for both parking fees and the damage they caused.

In another situation, the video system helped the airport as well as the TSA avoid liability and a potential lawsuit when a woman accused TSA of harassing, beating and injuring her daughter, a brain cancer patient from St. Jude Children's Hospital. Cameras showed that the TSA agent had merely restrained the girl after she had swung at and attacked him.


The Results

An upcoming terminal renovation is the first step in the planned expansion and modernization of all three terminals. This will require a complete redesign of each terminal, and plans are already in place for Pelco and Schneider Electric to provide integrated surveillance and access control solutions for this wide-scale renovation. Additional cameras to be added to the surveillance system include Pelco's Optera™ Multi-Sensor Panoramic IP Cameras and a wide assortment of Pelco's Sarix Fixed IP Cameras.

The airport has also begun installing a perimeter protection solution from Schneider Electric. This new project calls for installing several Pelco Sarix TI Thermal Imaging IP Cameras that will integrate with a new fence-protection system to further increase overall security at the airport.

As the airport continues to grow, evolve and expand, adding additional cameras, recorders and other systems will not pose challenges because of the way the integrator designed and deployed the new network infrastructure. Rather than installing a separate network specifically for cameras, the new network is designed to support both operations and the VMS with scalability for future growth.



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