KAIA

Challenge

To deploy a high-performance, reliable, and easy-to-use high-definition surveillance solution in KAIA's 13 parking lots, terminal lobbies, retail shops, duty free areas, and restaurants for greater security, more efficient management, and to protect travelers and airport assets.

Market:	Transportation
Location:	Saudi Arabia

Solution

Over 270 Avigilon HD cameras ranging from 1 MP to 16 MP provide complete coverage of KAIA's parking lots, terminals lobbies, and all internal market shops, all of which are streamed and monitored around the clock in the airport's state-of-the-art control room. Security personnel manage the Avigilon high-definition surveillance system using the Avigilon Control Center Enterprise network video management software (NVMS).

Featured Products

ACC Software

16 MP HD Camera

11 MP HD Camera

1 MP HD Camera

Benefits

With the Avigilon high-definition surveillance system installed, security officers can easily navigate and manage its 274 cameras, delivering irrefutable evidence to facilitate investigations, monitor inventory levels, and ensure best practices in terminal lobbies and all market shops. The airport lowered installation and labor costs by reducing the number of cameras required from 2,300 analog-based cameras to just 274 Avigilon HD cameras and was also able to achieve superior image quality with minimal network bandwidth requirements.

- Significant return on investment

- Reduced installation and labor costs

- Used minimal bandwidth

King Abdulaziz International Airport Secures Parking Lots, Terminals Lobbies, and Duty Free Shops with Avigilon HIgh-Definition Surveillance System

King Abdulaziz International Airport (KAIA) is Saudi Arabia's third largest airport and occupies an area of 105 square kilometers. Because of its proximity to the cities of Mecca and Medina, the airport is the gateway to Saudi Arabia for a large number of visitors from around the world. In 2010 alone, KAIA serviced more than 17 million passengers. Over the past several years, the airport has undergone a series of renovations to enhance passenger service and ensure their safety. Most recently, KAIA deployed the Avigilon high-definition surveillance system in its 13 parking lots and all duty free shops and restaurants to more effectively secure travelers and protect airport assets.

"We wanted a high-performance, reliable, and easy-to-use solution to capture irrefutable evidence for quick and successful investigations."

Avigilon for Quick Resolution

Tasked with selecting a new surveillance system for the airport's parking lots, terminals' lobbies and duty free shops, Al Musbah, a local provider of security solutions, had one goal in mind. "We wanted a high-performance, reliable, and easy-to-use solution to capture irrefutable evidence for quick and successful investigations," said Adel Safadi, manager of CCTV & Video Analytics Systems at Al Musbah. The ability to take quick action when an incident occurs — whether it's an accident or theft—is a critical factor in reducing disturbances and maintaining high customer service levels. "The Avigilon high-definition surveillance system gives us the tools to review and take appropriate action as quickly and effectively as possible."

A total of 274 Avigilon HD cameras ranging from 1 MP to 16 MP provide complete coverage of the airport's parking lots, terminal lobbies, and duty free shops. Eleven Avigilon HD 16 MP cameras, three Avigilon HD 11 MP, 29 Avigilon HD 5 MP, 43 Avigilon HD 2 MP, and 31 Avigilon HD 1 MP cameras monitor the 2,000 vehicles that enter and exit the parking lots daily. In the airport's lobbies and all market shops area, 24 Avigilon HD 5 MP cameras, 44 Avigilon HD 2 MP cameras, and 87 Avigilon HD 1 MP cameras deliver complete coverage. All Avigilon HD cameras are streamed and monitored around the clock in the airport's state-of-the-art control room. Security personnel manage the Avigilon high-definition surveillance system using Avigilon Control Center Enterprise network video management software (NVMS) with High-Definition Stream Management™ (HDSM), which was built from the ground up to manage high-definition surveillance video.

Avigilon Quality Advantage

The primary goal of the new surveillance system is to capture clear, irrefutable evidence for the prompt resolution of incidents and issues in the airport's parking lots, terminals' lobbies and all internal market areas. "We are mandated to provide the most accurate evidence possible to local law enforcement to assist in their investigations," explained Safadi. The system is also used by the airport director to provide higher efficiencies for KAIA management, as well as airport police, who now have another connection to secure passengers and identify suspicious objects or banned vehicles. "The two parties and other agencies are so impressed with the image quality that they have requested direct access to the Avigilon high-definition surveillance system to expedite their efforts."

Since high-definition video delivers far greater detail, security personnel can make rapid and accurate decisions. With the Avigilon high-definition surveillance system in place in the parking lots, security personnel can read license plates and capture facial details any time of the day or night, no matter how congested an area. "We can even capture license plate numbers when the car's headlights are facing the cameras," added Safadi. Delivering such high quality images, the Avigilon high-definition surveillance system has also proven useful as a management tool in the duty free shops, where it is used not only for customer protection and crime prevention, but also as a tool to monitor inventory levels and ensure best practices. "We can keep track of stock levels and monitor customer service to deliver the best retail experience possible."

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High Quality, Low Bandwidth

While very impressed with Avigilon's image quality, the airport was initially concerned that bandwidth requirements would be too high. Al Musbah wanted to ensure that the system installed could efficiently manage the transmission and display of high-definition video, so the benefit of the additional detail would not be lost. By leveraging Avigilon Control Center's High-Definition Stream Management (HDSM) technology and grouping the cameras to form a sub-network that connects to the high bandwidth fibre network, Safadi was able to easily overcome any concerns. Using HDSM, the Avigilon high-definition surveillance system only sends the requested pixels, so the workstation does not become overwhelmed with processing unnecessary data. "Thanks to Avigilon Control Center and High-Definition Stream Management, security officers are able to navigate through the 274 cameras easily on very little bandwidth," said Safadi. "The use of JPEG2000 compression gave us the ability to view multiple cameras on very little processing power at the viewing station, while still maintaining unbeatable image quality."

The Power of Avigilon Control Center

Leveraging Avigilon Control Center software, security staff can view live footage and playback video at the same time, while managing multiple megapixel cameras seamlessly in fast forward and review mode. "Using Avigilon Control Center, we can retrieve superior evidence at a phenomenal speed – the search capabilities are truly unrivaled," noted Safadi. The ability to zoom into points of interest while maintaining a full live view of the overall scene has also proven to be a great advantage. "We have four local and six remote operators, all of whom can zoom into a different scene within the same 16MP camera – something that is impossible with a mechanical PTZ."

Airport security personnel have improved the success of their investigations since installing the Avigilon high-definition surveillance system. In one case, Safadi was able to easily and quickly retrieve multiple clips from a range of cameras to provide local police with a video of an alleged thief as he entered the airport, committed the theft, and left. "With the Avigilon high-definition surveillance system, we were able to provide police with the complete story, which quickly led to the suspect's arrest," commented Safadi. "The police were very impressed with the video quality and speed with which they received it."

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Performance Gains and Cost Savings

Al Musbah selected the Avigilon high-definition surveillance system to monitor the parking lots and duty free shops for multiple reasons, but largely for its ability to capture, review, and store high quality footage to facilitate investigations. Convinced by the system's performance, ease-of-use, and reliability, and impressed by Avigilon's support, the airport is hoping to expand the Avigilon high-definition surveillance system to cover other key areas. "The Avigilon high-definition surveillance system has not only surpassed our performance expectations, it has also proven to be a very cost-effective way to secure our site," concluded Safadi. "By installing the Avigilon high-definition surveillance system, we were able to reduce the number of cameras required from 2300 analog-based cameras to just 274 Avigilon HD cameras, saving us a lot in installation and labor costs."