

Surveon Secures Airport Administration Bureau with Reliable RAID Storage and Megapixel Quality

By nature airport operations are complex involving with aircrafts, cargos, passengers and luggage. With so many people and things bustling around, security is the top priority for every section in the airport. As one of the top ten international airports, its administration bureau carries important functions to manage the daily operations. Deploying security at the highest level is a must for the bureau and megapixel surveillance is the obvious choice. Surveon's end to end solutions, from 3 megapixel cameras, RAID NVR with subsystem storage, and enterprise VMS, have helped the bureau achieve its top agenda of safety, security and cost-efficiency.

Customer

As one of the world's busiest transportation hubs, the airport handles over 50 million passengers every year. In addition to the passenger terminals, the airport also consists of retail shopping centers and areas for cargo services. The administration bureau with hundreds of staff is in charge of managing these facilities and ensures regular operations and smooth integration between different sections. The security standard for the bureau is understandably tight for protecting the staff and the airport against the full spectrum of potential threats.

Challenges

"Situating in the airport, high quality surveillance is required to ensure a total safeness," said Chen, the security manager of the administration bureau. "Conventional analog solutions cannot meet our surveillance requirements any more in terms of resolution and central management, and choosing megapixel solutions is the trend. However, our top concern was that high resolution would be a burden on the recording performance and might cause reliability issues. Any video loss will mean troubles and a waste of money," Chen continued.

Moreover, the surveillance systems must be able to be integrated with the existing IT infrastructure. The bureau also required that video management can be leveled according to the authorities and monitoring can be performed on the go to suit the daily operations of the staff.

"Thanks to Surveon's end to end megapixel solutions, we were able to raise the surveillance standard to meet the world-class level for airport facility. The easy and flexible video management also allows us to perform monitoring on the go. It's definitely an excellent choice for our bureau security," said Chen.

Solutions

Professional Megapixel Cameras

Surveon CAM4365, the 3 megapixel WDR dome, was chosen in this project for its high resolution of 2048x1536 and excellent image quality. Besides that, the industrial-grade, ruggedized IP66 design, vandal proof, and auto focus features make it suitable for outdoor use. Surveon's latest CAM4471 camera expands the real-time/30 FPS performance to 3 megapixel while maintaining true HDR with over 100dB to ensure higher quality. Along with other advanced functions including H.264 high profile, ROI video cropping, and auto focus, Surveon's 3 megapixel cameras provide users high image quality with the lowest bit rate.



Summary

Customer:

Administration bureau of one of the Top 10 airports

Project Needs:

- High level surveillance
- Superior image quality
- Continuous megapixel recording
- Stability and reliability
- Enterprise VMS with user privileges, mobile client
- High efficiency and flexible management

Surveon Solutions:

Highly integrated solutions with the following:

- CAM4365 3 megapixel WDR dome
- NVR2100 enterprise hardware RAID NVR with subsystem storage
- Surveon VMS Enterprise with video analytics

Surveon Solution Benefits:

- Certified end to end solutions, from cameras, NVR, VMS, to storage
- 120-day megapixel recording
- Hardware RAID NVR ensures reliability
- Exemplary performance, extremely stable HD and zero frame loss
- Easy integration
- Centralized management
- Real-time VI detection
- Smart investigation
- 100% in-house design and production
- 3 year warranty

Enterprise Hardware RAID Megapixel Recorders

“To have all recording videos saved in the system is the basic yet the most difficult task,” said Casper Wu, Product Manager of Surveon. “Nowadays many projects require continuous megapixel recording. Subsystem storage is widely deployed for mission-critical security applications because of its high performance and reliability.” Compared with the conventional all-in-one NVR, Surveon NVR2100 with pre-integrated SAS subsystem storage allows applications and network to work independently and reduces the possibility of malfunctioning affected by each other.

Table 1: Comparisons of Storage Solutions

	Surveon NVR with Subsystem Storage	Conventional All-in-One NVR	Key Differences
System Architecture	RAID subsystem	PC built-in	When PC is down, so is the storage of all-in-one NVR.
Overall Design	Cable-less, whole module design, anti-vibration, advanced thermal design	Cables, dust, vibration, thermal issues	HDDs are easy to fail with all-in-one NVR.
RAID Performance	Enterprise RAID subsystem	RAID card or software RAID	High performance and high stability with Surveon NVR
Maintenance	Hot swappable hard disks, central management	None or difficult	Lower maintenance costs and risks with Surveon NVR

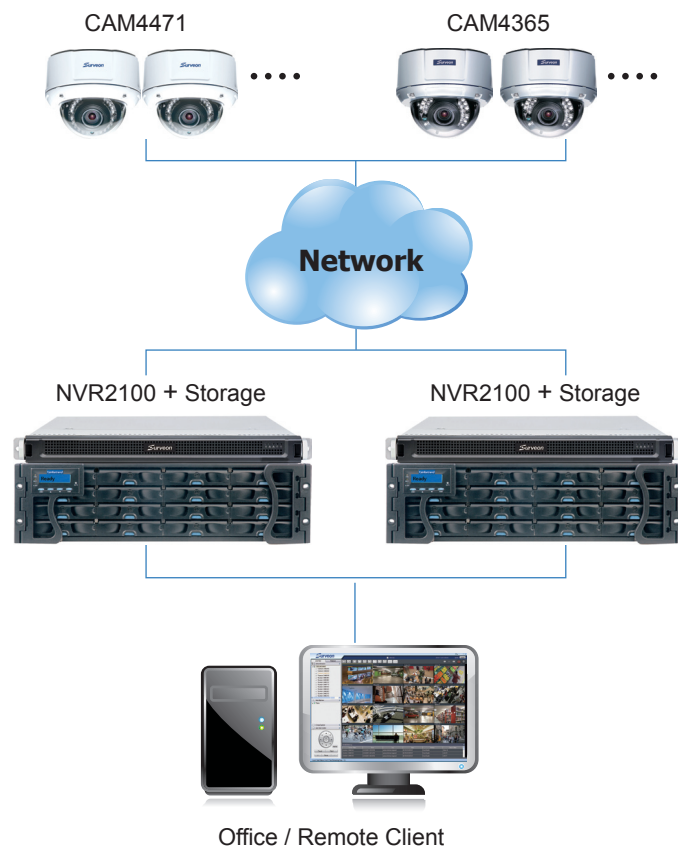


Figure 1: Distributed Architecture for Advanced Applications

Chosen for this project to provide high I/O, large capacities, and overall system stability, Surveon's NVR2100 also offers the advanced features, such as local/remote replications, high-level performance, hot-swappable, redundant components, thermal-proven cables and industrial-grade design, empowering the NVR2100 to meet the strict demands of 24/7 non-stop megapixel recording.

Enterprise Video Management Solutions

The Surveon VMS Enterprise software offers levels of user privileges for different authorities, allowing one single login to VMS with a flexible control. The intuitive UI also simplifies the complicated video management, requiring only minimal trainings to fully control and conduct the VMS. Built on the open platform, the Surveon VMS optimizes the network security infrastructure by supporting integration with various subsystems. The Surveon VMS also provide web, remote, and mobile clients for the bureau staff to easily manage surveillance anywhere in the airport.

The Surveon VMS incorporates plenty of advanced functionalities applicable for any professional security projects. The Smart Search offers a total awareness controlling framework, turning massive data to actionable and meaningful information. With the Real-time VA, security personnel can quickly react from the live view, snapshots, pop-ups, e-Maps and instant playback to lower the damage and increase the operation efficiency.

Benefits

Detailed Monitoring, Excellent Image Quality

Surveon's 3 megapixel real-time HDR cameras deliver the excellent image quality in high speed motion or non-motion videos. Whether it is in the daytime or at night, the two profiles of image appearance parameters ensure clear visibility. In addition, the advanced ROI engine allows users to create eight independent regions, each with different video quality and frame rate. The lower bit rates and advanced ROI can reduce the network bandwidth and storage demand required for megapixel surveillance, keeping a good balance between image quality and bandwidth.

Reliable Storage & Optimized Video Management

Built-in with the premium-grade RAID subsystem storage, Surveon's NVR2100 ensures high video resolution, non-stop recording with stability and reliability. Paired with the Surveon VMS, the complete solutions not only improve safety and security, but provide robust prevention, preparedness, detection, and quick response measures for the airport administration bureau.

About Surveon

Surveon Technology offers end-to-end network video surveillance solutions that showcase our expertise in professional camera design, hardware RAID NVR, high availability video storage, embedded firmware and video management software. All Surveon products are designed in-house and manufactured on our ISO 9001 and ISO 14001 certified production site to ensure the highest quality for our partners.