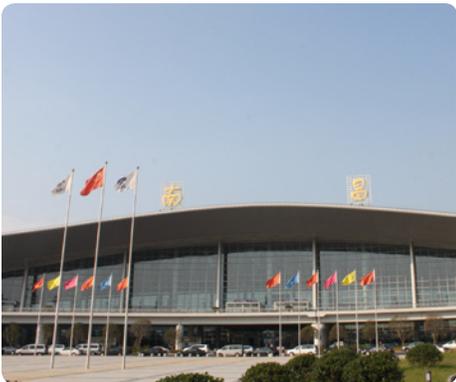


Nanchang Changbei International Airport in China



As one of the busiest airports in China, Nanchang Changbei International Airport manages over 3.3 million passengers and 34,000 flights per year. In 2010, Changbei Airport began an expansion project that included a new terminal and a second runway. With a total investment of RMB2.5 billion (US\$393 million), objective of the project was to expand in order to accommodate up to 12 million passengers annually by 2020.

- Products and Technologies:**
- VertX® V1000 Network Controller
 - VertX® V100 Door/Reader Interface
 - iCLASS® R10 Contactless Smart Card Reader
 - iCLASS® 2000 Contactless Smart Card

Challenges

Since its completion, the Changbei Airport has become the aviation hub in the Jiangxi Province. With the rapid economic growth in the region coupled with increasing passenger and cargo volume, it was necessary to impose higher security and safety standards for airport personnel. Due to the high volume of airport passengers and the sophisticated organizational structure of airport staff, the security system needed to provide strict access control settings that limit entry to key zones and restricted areas to authorized employees only.

The airport had also introduced a safety management initiative to address these issues and enhance overall operational security. As part of the initiative, the requirements for the access control system included:

1. Role-based access level settings to limit staff access at key entry points and restricted areas by controlling entry time based on job function.
2. Central management through a central network platform that connects the control station and affiliated subsystems, enabling real-time monitoring and data management.
3. A data management system that automatically stores entry records and card access information and generates reports for analysis.
4. Seamless system integration, where the access control system works with alarm, fire and safety systems as well as CCTV.

Solutions

HID Global's VertX® networked access controllers and iCLASS® readers and credentials were deployed at the new Terminal 2 of Changbei Airport. The iCLASS readers located at the gates and entry points are connected to the VertX V1000 controller to read cardholder information, while the V1000 controllers transfer all data to the host computer via TCP/IP for data management. The access control system addresses the airport's need to establish access control settings that restrict entry to specific areas based on the time of day; define staff access control levels according to job titles and limit access to critical zones to authorized personnel only. For example, one of the airport's critical zones -- extra-low voltage (ELV) system area -- is restricted



to maintenance staff and engineers since it houses all communication networks (the fire and safety system, integrated cable system, and CCTV system).

In total, HID Global controllers and readers are installed in six areas, including gates, internal passageways, ELV system areas, equipment rooms, offices and airport operations facilities. To further enhance safety and prevent unauthorized access with cloned cards, old employee photo ID badges have been replaced with iCLASS photo ID cards, and all employees are required to present their access cards to an iCLASS reader at entry points for identity verification. The new access control system collects all cardholder information and entry records in real-time, including entry times, location, name and the employee's department for real-time monitoring and report generation.

Results

Changbei airport found that HID Global's access control solution is easy to operate and maintain and has a low failure rate. The airport security has been significantly enhanced with multi-layered access level settings and the iCLASS reader's data encryption technology, both of which have deterred card cloning. HID Global's open architecture VertX networked access controllers are designed to meet the airport's evolving requirements through simple firmware upgrades for future system expansion and are interoperable with any management software, enabling additional deployments such as alarm configuration and other applications.