CASE STUDY

National University of Singapore Suzhou Research Institute

Products and Technologies:

- VertX® V1000 Network Controller
- VertX® V100 Door/Reader Interface
- iCLASS® R10 Contactless Smart Card Reader

Suzhou Research Institute, Singapore

Occupying an area of 20,000 square meters, the National University of Singapore Suzhou Research Institute (NUSRI) is located at the public academy of Science and Education Innovation District in Suzhou, China. Rallying the insight, world-class scientific research resources and innovation ability of the National University of Singapore, NUSRI focuses on dedicated research, the training and technology commercialization of medical science, IT, bioengineering, materials science and business administration to contribute to the development of Suzhou Industrial Park and Suzhou city.

For safety and facilities management, the institute needed an access control solution that enables real-time monitoring and role-based access level settings to manage staff access at key entry points and restricted areas such as lecturer offices, laboratories, hazardous materials storage rooms and machine rooms.

Challenges

NUSRI comprises a large faculty, staff and student population across a vast geographical area. Their legacy access control solution was unable to monitor access to different areas for safety management and facilities usage control. For example, office common areas needed to be accessible during office hours only, and restricted to certain staff after office hours.

Advance reservations are required to access key campus facilities including lecture rooms, laboratories, hazardous materials storage rooms and machine room; the new system needed to have the capability to grant access to authorized personnel only within the reservation hours to ensure the facilities are properly used and to prevent accidents caused by unauthorized access.

The system also needed be able to perform a patrolling function, where the access control readers serve as patrol points to which the security guards present their credentials at a specific time. The patrol information should be uploaded in real-time to the central station, and an alert should to be sent to the administrator in case of any abnormal situations (for example, if the door is left open during non-teaching hours). Additionally, the access control system needed be integrated with the fire alarm system so the doors can be unlocked when an emergency signal is received. This feature was particularly important for high risk areas such as laboratories and hazardous materials storage rooms.

Lastly, the access control system needed to support the cards already deployed in the field to save cost and allow the administrator to perform access level settings for facility allocation.

Solutions

Facility Access: HID Global leveraged the university's existing network investment, delivering a centralized, web-based IP access control solution by connecting HID Global's VertX® V1000 controllers to the host computer via a TCP/IP network for remote monitoring, area control and report generation. By incorporating HID Global's networked access solutions with system software, the central station administrator can now perform all execution commands, including tracking and changing security levels and access rights, as well as data backup and report generation. The system can also collect cardholders' entry records and other information, including the employee number, name, department and title for time and attendance purposes.

HID Global's iCLASS® R10 readers that support the existing MiFARE® credentials are installed at each access point. All students and staff now present their MiFARE cards to verify their identity at the entry points. Additionally, the security administrator can grant facility access to authorized staff during specified hours for effective facility management.

Office building areas: During office hours, the doors are accessible to all staff members; authorized staff must present their access cards for identity verification and facility access at any other time.

Laboratories and hazardous materials storage rooms: Advanced reservations are required for use of these areas. The administrator at the central station is able to grant access to authorized staff at specific times according to the reservations records. This can prevent accidents and damage to lab equipment caused by unauthorized access.

Lecture rooms: Access rights are granted according to the faculty teaching schedule.

Patrol system: iCLASS® R10 readers work as patrol points, where the security administrator can assign specific guards to present their cards at designated readers. Security patrols are performed after the use of laboratories or lecture rooms, during non-office hours and to conduct random security checks of the hazardous materials storage rooms. The patrol staff is required to check in at designated location and time to ensure these areas are secured.

The new system seamlessly integrates with video surveillance and fire alarm systems. The CCTV captures the image of the patrolling guard after the patrol guard has presented their card to the reader. In case of a door being forced open, tamper alarm or unauthorized entries, the system can determine the incident type and indicate the door location at the central station. The system can also unlock emergency doors for evacuation in the case of a fire.

Results

HID Global's access control solutions leverage the existing IP network and credentials to save overhead costs on wiring and accelerate the installation time. The scalable solutions can be quickly expanded or adapted as the need demands.

As a worldwide leader in secure identity solutions, HID Global offers extensive service support to NUSRI. HID Global and its channel partners have promptly responded to customer inquiries on system design and installation, providing quality support to achieve customer satisfaction excellence.

2014-01-21-hid-nus-cs-en PLT-01875