

# Integrated data centre solutions ensure highest energy efficiency

## Siemens Data Centre Beijing, China



In September 2008, Siemens China opened its new Siemens' Center Beijing (SCB), the company's largest real-estate project worldwide. Siemens, the leading provider for energy efficient, safe and secure buildings and building infrastructure, provided the technology to maximize the energy efficiency of its new HQ, optimize the management of its technical infrastructure, ensure maximum business continuity and enhance the comfort and safety of its occupants themselves.

### ■ The project

The Siemens' Center Beijing, environmentally friendly headquarters, is the company's largest, real-estate project worldwide. It houses the headquarters of Siemens China and partly consolidates the offices of local Siemens companies, subsidiaries and operating companies under one roof.

It also includes the Beijing Data Center, the company's largest and most advanced data center in Asia, comprising 630 servers, 100 racks and covering 490m<sup>2</sup> of floor space. The new building is strategically important for Siemens, as it functions as the regional headquarters covering the infrastructures for the IT and voice services of more than seventy locations in China and Mongolia. The data center also provides computing and storage space for all of Siemens' Asian subsidiaries, along with a reliable infrastructure and a secure environment.

### ■ The challenges

The new data centre was built to provide capacity, performance and assured business continuity for both Siemens itself and external customers in China and throughout Asia. No commercial organization today can afford breaches of its data security, disruption of its computer network or the loss of irreplaceable data. For some, even one or two hours of downtime can be not only financially crippling, but also very damaging for their reputation. Housing as they do such sensitive, vital information and systems essential to the survival of their clients, data centers therefore present a greater need for absolute protection whilst demonstrating a greater level of risk – especially when it comes to fire and security. It is therefore essential that preventive and active fire protection as well as security is employed in such vulnerable locations.



### ■ The solution

Siemens equipped the the SCB with a tailored fire safety and security solution, amongst others integrating fire detection and extinguishing, evacuation, access control, video surveillance and building automation systems:

- The integral fire safety concept ensures the perfect interaction between very early and reliable detection, alarming, control and extinguishing. In the event of a confirmed fire, the fire control panel, integrated with a video fire controller, converts the alarm into adequate actions and helps trigger the right response.
- For optimal security of the data center a SiPass access control system integrates with a video surveillance and intrusion detection system. The digital recording system provides live and recorded images from 25 day/night cameras.
- Central management and control of the fire safety and security systems is ensured by the danger management station from Siemens, also supporting an efficient incident response at all times.
- The building`s energy consumption is about 28 percent less than that of comparable buildings. The concept behind the SCB does not only feature

individual, 'green' IT strategies, but incorporates all of its infrastructures: design, fire safety, security, energy, water management, building engineering, communication and traffic. The building utilizes open-air cooling and low-energy lighting along with servers needing over 35% less energy.

- A building automation management station from Siemens is integrating all data from the building control, fire safety, security, lighting and power systems.

### ■ The benefits

The SCB demonstrates the obvious advantages of energy-efficiency and the many benefits of Total Building Solutions from Siemens in providing a pleasant, safe, secure and – above all - *controlled* working environment.

For many Asian companies, critical business functions are now assured thanks to the services provided in the Beijing Data Center. In April 2010, the Siemens Beijing Data Center was given the "New Generation Data Center Award 2009", based on the criterias "Green Energy", "Intelligentization", "Security, Stability, & Availability".

## Highlights

- Integral fire safety and security concept maximizing business continuity
- Extremely fast and reliable heat and smoke detection
- Optimal security thanks to SiPass access control, video surveillance and intruder detection system
- Danger management station for central management and supervision ensuring efficient incident response
- Intelligent building management system ensuring ongoing energy savings
- "New Generation Data Center Award 2009" for "Green Energy", "Intelligentization", "Security, Stability, & Availability"

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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