

Case study

Siemens UK headquarters

Integrated fire, security and energy management at Siemens UK headquarters



As a market leader in the provision of innovative energy, safety and security systems that deliver first-rate protection and maximise efficiency, Siemens' own head office at Frimley benefits from a fully integrated fire, security and energy solution that reduces costs year on year.

System overview

Through integration of heating, ventilation, air conditioning, access control and video surveillance systems together with fire, intrusion and evacuation alarms, every building is secure and energy efficient. The systems operate across an IP network, offering maximum comfort, convenience and outstanding security for staff and visitors and energy efficiency is maximised across the whole site, creating a modern, sustainable working environment.

Lighting throughout the Frimley campus has been installed using Siemens' own intelligent technology, ensuring minimal energy consumption. An onsite data centre delivers local services such as security, building management, audio visual, cashless vending and a range of other "local" services.

Security is key

A state-of-the-art security system enables

security monitoring from anywhere, at any time. Video surveillance incorporates sophisticated algorithms developed by Siemens to trigger alarms based on abnormal behaviours. The access control systems across all buildings enable the entry of only authorised card holders and are fully integrated with HR, facilities management and ICT systems to provide a range of services including cashless vending and secure single user sign on to PC and laptop applications.

The system connection to the facilities management service enables car parking spaces to be booked at the same time as meeting rooms and concierge services. Onsite parking is managed by the use of the Automatic Number Plate Recognition (ANPR) system which is able to monitor capacity as well as check to ensure only "booked people" are parking on site.

Fire safety

Siemens Sinteso™ intelligent fire detectors which employ advanced technology to identify only real fire phenomena, protect the site. The fire safety solution is not only connected to the IP network but is also interconnected to other systems to ensure cause and effect scenarios can be executed without reliance on the IP network.





In the event of a fire, the system will carry out actions in accordance with procedures such as grounding lifts, opening smoke vents, turning off air conditioning and making appropriate voice announcements. Via the connection to the IP network, voice announcements are directed to phones, evacuation procedures and routes are shown on plasma displays and PCs, and security cameras view and record the location of the alarm.

Energy management

The building management system (BMS) maintains a comfortable working environment for all, with effective temperature control that maximises energy efficiency. This includes intelligent lighting that dims or brightens according to the levels of natural light within the office and automatically turns on when movement is detected; these motion detectors then switch off lighting and heating in areas that are not being used.

Temperature, blinds and air conditioning are controlled centrally and the open plan layout helps reduce the need for excessive air conditioning. The blinds automatically raise and lower in line with the levels of sunlight.

Sustainability

Siemens' goal is to recycle 75% of all waste. Individual waste-paper bins are not provided; instead, green recycling points on each floor enable staff to separate waste for maximum and easy recycling. Paper consumption has been reduced by using the latest technologies such as RightFax to direct faxes to computer screens.

Multi-functional office devices which print, copy and fax are operated by smart access control and ID cards and are located centrally to discourage unnecessary use of paper; they also default to double-sided printing to minimise paper use.

Priority parking and facilities are allocated to employees who travel to work by motorcycle and bicycle. A car-sharing scheme has been introduced and members receive preferential parking on site.

Annual savings (approx)

- £34,000 from reduced lighting
- £36,000 from blind control
- £32,000 from HVAC variable speed drives
- £35,000 from building management system

Highlights

- Full integration of BMS with other services
- Alarms triggered by abnormal behaviours
- Security system integrated with other systems
- New services can be added via software interaction
- Fire system guarantees against false alarms
- BMS ensures most effective approach to energy use
- Intelligent lighting ensures minimal energy consumption
- Annual savings of approx £137,000

© Siemens plc
Printed in the UK

Siemens plc
Infrastructure & Cities Sector
Building Technologies Division
Solution and Service Portfolio
Brunel House
Sir William Siemens Square
Frimley
Camberley
GU16 8QD
Tel: +44 (0) 1276 696000
E-mail: firesafetyandsecurity.gb@siemens.com

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.