

A guide to access control for the education sector



What is access control?

Access control provides the ability to control, monitor and restrict the movement of people, assets or vehicles, in, out and round a building or site.

Access control is essential for all businesses to protect people and assets and has the added benefit of being expanded from controlling, for example, a single entrance door, to a large integrated security network. There are also huge potentials in terms of integrating HR and other systems, such as Time and Attendance, Visitor Management, ANPR, Fire, Intruder and CCTV, which can cut costs and streamline administration costs.

What risks does the average office face and how can these be countered by access control?

Electronic access control systems are increasingly being used to enhance safety and security in educational establishments.

The average educational establishment has a transient population with many high value goods such as computers and IT equipment, not to mention the personal possessions of staff and students, which are extremely attractive for thieves. Access control systems are all designed to allow access only to people with the necessary authority to ensure that goods and people are protected.

Educational establishments have a duty of care to provide a safe environment for pupils and staff and the application of access control can therefore help manage known or anticipated threats.

Generally systems comprise three component parts:

1. **The physical barrier** – to physically restrict access to a building or location via such methods as:

- Doors; secured by either a magnetic or strike lock or can be revolving or sliding.
- Turnstiles and speedgates; designed to limit access to one person for one card presented.

2. The identification device – There are a number of different technologies used to identify users of an access control system, such as:

- A proximity card and reader using RFID – cards can either work at a short read range or a long read range.
- A smart card and reader.
- A swipe card and reader.
- PIN pads.
- Biometric (fingerprint, iris scanning).

3. The door controller and software – The door controller and software are at the heart of the system and are used to decide who can gain access through which access point at what time of the day. These can vary dependent on the size of the system and how many readers or sites you are trying to control from one point.

Some of the options include:

- A standalone door controller linked to a single door with no software.
- A number of door controllers all linked together to a single PC to control one site.
- A number of sites all interlinked together over a wide network area.

What added benefits can access control systems bring to educational establishments?

Protection during school hours is paramount, and the following added benefits come from access control:

Visitor monitoring

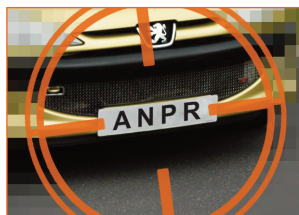
In an environment where visitors can blend in with the staff and pupils, the use of PC and computer networks should be considered. These systems can print photographic ID and allow access to be restricted to certain areas within the office. Moving to a software solution for visitor management is an easy and inexpensive solution and can provide a number of added benefits.

Case study:

Guildhall School of Music and Drama worked with a BSIA member to update their existing access control system to provide a complete security system. The school needed to replace its outdated access control system with one that clearly identifies and records who exactly has access to where, and at which time on all of the five separate sites, currently with around 2000 people accessing the different facilities. The system therefore needed to ensure the smooth operation of students, staff and visitors at high volumes.

The system was designed to ensure the smooth operation of a 100,000 square metre complex, spread over five buildings with both students, staff and visitors accessing the different facilities sometimes at high volumes. A Smart Card system was developed which provides not only access to designated areas, but also allows all sites to be linked via a modem, allowing administration from a central point.

Automatic Number Plate Recognition



For college and university sites where students may be driving in and parking onsite, Automatic Number Plate Recognition may be a viable option. To monitor the entrance of vehicles on site, CCTV-style cameras and computer software can be used to identify number plates of vehicles. Some systems can also store photographs of the driver and vehicle for subsequent analysis. This sophisticated software allows critical information to be passed to the police to assist in the pursuit, identification and capture of offenders.

Visual proof of parking offences with the corresponding time and date information is provided as evidence and to avoid disputes. Using a Driver and Vehicle Licensing Agency (DVLA) link, monitors are then able to identify the owner of a vehicle and process the offence automatically.

Integrated security systems

Those educational establishments which operate on several floors and maybe across several sites, may also benefit from a fully integrated access control system with CCTV, intruder alarm, fire detection and building management systems. One way to attain this is by adopting the use of Internet Protocol (IP) technology which allows these systems to 'talk' to each other to maximise their effectiveness.

Case study:



A BSIA member worked with Queen Mary University of London to provide a facility wide access control card solution, utilising one card database to centralise administration. One of the largest multi-campus colleges of the University of London, QMUL has more than 10,000 UK, European and international students attending four campuses.

The colleges were all once run separately with QMUL's access control system consisting of several standalone systems supported by several smaller installation companies. QMUL had used the same system for 15 years with over 100 readers functioning on two main systems.

After studying QMUL's system requirements and learning about campus goals the BSIA member provided a complete upgrade which included the installation of an access control and alarm monitoring system to communicate between the server/client PC's and intelligent door controllers over QMUL's existing LAN/WAN infrastructure. The access control system allowed QMUL to a single card that would work across all campuses and control the system from a central point. Now approximately 20,000 cardholders gain access through proximity readers.

Fire roll-call

Fire roll call software will automatically generate a report in the event of a fire or other emergency containing crucial information in relation to who is within the building and potentially where they are. This software operates via the access control smart card or fob that an employee or pupil uses to gain access/exit to a building. In the event of an emergency, the fire roll call software alerts occupants to the emergency whilst simultaneously activating the report at a safe pre-determined remote point.

Case study:



A BSIA member worked with Holywell Middle School near Cranfield in Bedfordshire, to provide fire roll call software system after the school's fire health and safety procedures were reviewed.

The Fire Roll Call and monitoring system was installed, which gives immediate fire roll call reports containing crucial information concerning who is on site.

Unlike other systems, the fire roll call function is executed directly from the clocking station and does not rely on the controlling PC or computer infrastructure. This means that when the fire alarm is activated the evacuation list is printed out automatically at a safe pre-determined muster point, enabling the staff to evacuate quickly, safely and account for all those present.

Holywell School has successfully tested the system during their fire drills and feels very comfortable using the system.

What key considerations should be taken into account when considering access control?

The outcome of the risk assessment for your office will determine the level of security you require and in turn influence your choice of access control system to be used. BSIA access control members and professional security consultancies can assist with this.

BSIA members go through rigorous checks before they are admitted into membership, meaning you are selecting quality companies to achieve peace of mind. Below are just some of the reasons why you could benefit from using the services of a BSIA member:

- Independently inspected to the quality standard ISO 9001 with a UKAS accredited inspectorate.
- Compliant with relevant British and European Standards and codes of practice.
- Financially sound.
- Professional.
- Staff vetting conducted (where appropriate).
- Technically proficient.
- Committed to quality training and development.
- Up-to-date with the latest developments in British and European policy and legislation.

Is there any legislation I should be aware of?

The Disability Discrimination Act was amended in 2005 and has significant impact not only in terms of the design of new systems, but also means that many systems may need to be upgraded to ensure compliance. This is of particular importance also for educational establishments as employees, pupils and visitors will all need to have adequate and user-friendly access to the building.

The BSIA has created a guide to help design access control systems following the introduction of the revisions which can be downloaded from www.bsia.co.uk/publications

Other legislation to be considered in relation to educational establishments is:

National minimum care standards
Health and Safety at Work Act
Occupiers Liability Act
Management of Health and Safety at Work Regulations

Where can I go for further information?

For more information on the work of the BSIA Access Control Section, visit www.bsia.co.uk/accesscontrol
To find an access control provider in your area, visit www.bsia.co.uk/companyfinder