A guide to access control for offices

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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.

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 other systems, such as Time and Attendance, Visitor Management, ANPR, Fire, Intruder and CCTV.

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

The average office is not only made up of the members of staff who will be there on a daily basis, but there are also often visitors or people who would not usually be there, who in large premises could potentially blend in with office workers. Access control systems are all designed to allow access only to people with the necessary authority.

Generally they 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?

Visitor monitoring

In an office context where visitors can blend in with the staff, 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.

Time and attendance

Within the office, which can see both staff and visitors entering and leaving the building, badge/token technology can be used to record employee hours. If appropriate, these can be processed against working hours, applicable for both temporary and permanent staff, in real-time to feed transactions through to the company's payroll. Time and attendance systems also accurately help keep employers on the right side of the European Working Time regulations and plan holidays and absences. Fast, accurate and easy-to-use, these systems are suitable for businesses employing just a few people, right up to large multinational companies.

Automatic Number Plate Recognition

To monitor the entrance of vehicles on site, particularly in relation to larger office buildings where the general public may wish to park in spaces only provided for members of staff or which have a high frequency of contractors or delivery drivers, 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.

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 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.

Integrated security systems

Larger offices 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.

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 offices as employees 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.

Case studies

1. Complete security solution – Euromax

One BSIA member worked with Euromax, a major retailer in Albania and part of ManeTCI Group, to provide a new system which would provide access control and time management functions. It was expected that the business would be increasing its workforce considerably and therefore a system was required which could expand as the company grew.

The main objective of the new system was to provide a clear view of what was going on in the company: when people came in and out; how many hours staff worked; and some reports about their holidays. Security systems were installed which used smart card access and clocking stations via a TCP/IP protocol. As Euromax has a decentralized structure with stores all around the country, the stores can communicate with the central offices via leased lines.

IT Manager for Euromax, Gentian Gjiknuri, comments: "The BSIA company offered the product for a trial period and had a clear licensing system. The system complied with European Union Working Regulation and is rich in features, offering a powerful tool for the HR department and many benefits for the structure of the company."

"This system offers great capabilities in putting structure and order into a company, boosting the performance of HR and reducing the levels of personnel required."

2. Remotely monitored security systems – Barings

Another BSIA member worked with Barings, a global investment management firm, during the opening of new premises for its European Data Centre which needed to synchronise security between its new building and its long-established City headquarters. The new facility was designed as a 'lights-out operation', meaning that staff don't work there full-time.

It is used as a data centre and to provide alternative workspace in the event of any problems at the global headquarters. The priority was to ensure that security at the new site could be easily managed remotely.

After conducting a detailed assessment, the member delivered an appropriate security solution that involved both CCTV and access control across both locations, plus search and reporting functionality and the assurance of reliable back-up.

The new security solution integrates video and access control to enable headquarter staff to monitor the data centre remotely. Linking cameras to access control software easily alerts the remote operator to any alarms, displaying live camera views. On a day-to-day basis the system is simple to manage and Barings is confident that the system will be able to accommodate future requirements as they arise.

Mark Williams, Head of Business Services for Baring, commented: "We have strong confidence in the BSIA member who has always been able to offer new solutions to meet our changing requirements."

3. Tailgating – Gemplus

One BSIA member worked with Gemplus, provider of solutions empowered by Smart cards, who due to the nature of their organisation wanted to focus on who gained access through a door once it had been opened with the need for a high level of security on key access points. They found that their existing access control system was effective whilst the door was closed, however they were vulnerable to unauthorised entry once a door was open. Staff were holding the doors open for each other (tailgating) and the access control system was rendered useless.

The BSIA member integrated a tailgate detection device with the existing access control system on these doorways to create an infrared field across the doorway to monitor the passage of every individual passing through the door, only alerting the security staff to the presence of unauthorised staff, thereby ensuring each individual who passes through a door must present his or her access card.

Now unauthorised access, which is highlighted as an alarm event, is monitored by a CCTV camera and when connected to a DVR (Digital Video Recorder) with a pre-alarm feature, is recorded for security to review and take appropriate action encouraging staff to use the system properly.

Geoff Flowers, Corporate Security for Gemplus, comments: "Door detection is a great supplement to our access control system. It is being used in secure areas where we have to ensure only authorised staff have access, and security personnel are alerted each time someone tries to tailgate."

What should I do now?

To find an access control provider in your area, visit **www.bsia.co.uk/find-a-security-company**

For more information on the work of the BSIA Access and Asset Protection Section, visit **www.bsia.co.uk/sections/access-asset-protection**