

INTEGRATED SYSTEMS

How they can work in your business



In today's technologically aware business environment, integrated security solutions might well be the best way to provide your company with comprehensive and cost-effective security. But what exactly are integrated security systems? And how can capital expenditure on technology save you money even in the short-term?

INTEGRATED SECURITY SYSTEMS – AN OVERVIEW

An integrated security system might utilise a blend of different technologies; for example, a company might use a combination of CCTV, Access Control, Alarm Systems, Remote Control and Monitoring on its site. Integrated systems might also combine electronic security and guards, perhaps utilising technology in

remote/hazardous areas, but guards in customer-facing roles. Nowadays you can also take integrated security one step further, by linking security with building management systems. In practice, this means security systems functioning alongside environmental control units, fire detection and suppression, lighting management, lift operation and utility metering. Instead of working in near isolation from each other, these systems can now be networked and centrally, or remotely, controlled. Practical examples of this include CCTV cameras that can be programmed to position themselves and record automatically if triggered by detector activation, such as a fire door being opened.

BENEFITS OF INTEGRATED SECURITY SOLUTIONS

The main benefit of integrated security solutions is that they offer significantly better security than individual systems.

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When stand-alone systems are configured together as an integrated solution, the benefit of the whole is much greater than the sum of its parts.

SPECIFIC BENEFITS

- Actions can be automated – for example; alarms can be programmed to set automatically rather than having to rely on personnel to do the job.
- Automation can make systems easier to use and decrease the requirement to train staff in certain security procedures.



25 years of expertise providing total security solutions





- Integration can result in decreased costs. For example, perimeter fences can be linked to alarm monitoring and CCTV systems; this allows a small number of security staff to observe large areas of perimeter fencing, and, if necessary, arrange for an appropriate response, even if they are off-site. This use of technology potentially saves money on manned guard patrols, whilst being available on a 24/7 basis if required. Similarly shared infrastructure, such as cabling, can be used for both security and building management purposes, providing further savings.
- Integrated systems can make life more convenient for staff and building managers, whilst still saving money.
- Detector activations can lead to heating and lighting in certain areas of a building being switched on when the access control system validates a staff member's proximity ID card and admits them to areas they are

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permitted to enter. This offers convenience of use, whilst ensuring that energy is not wasted in keeping these building systems running out-of-hours in otherwise empty rooms.

- Where security staff and building managers operate from a control room a high level of integration can offer a greater level of supervisory capability, over both staff and infra structure.
- Security officers can be better deployed, monitored and supported as they perform both routine site checks and specific incident response duties.
- Regular automated checks can be carried out on building systems and prompt action taken to address any problems. Alarms from all systems can be viewed in a single user interface.
- Integration of security systems can provide companies with the ability to link access and intrusion events to video recordings, which makes any potential incident investigation more straightforward.
- The potential breadth, reliability and ease of using integrated systems is a significant consideration when companies have to design security strategies to deal with newly-emerging threats, such as terrorism and ID theft.

INTEGRATED SYSTEMS IN ACTION – CASE STUDY ONE

A Nottinghamshire Distribution Company

Installed on the site is an integrated intruder alarm, automated gate/access control and remotely monitored CCTV system. During out of hours periods the system is set and the site is protected against unauthorised access and intruders. *Authorised access is dealt with as follows:*

Authorised visitors use a card to activate the automatic gate. The card code signifies which zones of exterior and interior intruder detection are deactivated. If an unauthorised zone is entered then images from the CCTV system are transmitted as an alarm signal to the CCTV monitoring station where appropriate action is taken. In the first instance a warning announcement over the on-site tannoy system is given and if this fails to be effective then the police are asked to attend. The solution is effective because:

- It will always detect intruders.
- It handles the needs of various types of authorised visitor.
- It combines the sophistication of technology with a human element to provide decision-making.

For this example, integrated electronic security provides everything that a manned guard can provide, and much more, at a fraction of the cost. GBSG installed the complete system, which, in addition to the performance benefits, provides a single point of contact for support. There is also no arguing between suppliers as to who is responsible.

Source:

www.gbsg.co.uk/cs_distribution.asp

POTENTIAL APPLICATIONS OF INTEGRATED SYSTEMS

In the past, problems encountered in matching different system control protocols led to difficulties in enabling these systems to 'talk' to each other. However, recent technical advances and improved standardisation in Internet Protocol (IP) technology now mean that a control system should be able to talk to all devices; thus providing an ever-increasing list of integration possibilities, such as:

INTEGRATED SECURITY SYSTEMS – THE FUTURE

IP technology, when procured correctly, will become increasingly viable and effective. The use of IP Local Area Networks

(LANs) as a medium from which to 'hang' a variety of operating systems is already offering site operators savings by broadening functionality; and the increasing standardisation of IP technology will offer more opportunities to maximise systems interaction and operation, while minimising capital outlay.

Business points to note

- Expect to run security for the whole organisation from a single location as your Wide Area Network provides more bandwidth.
- Expect more of the system to connect directly to the LAN.
- Expect extensive changes in access token formats and greater use of biometric technologies.
- The improved quality of CCTV recordings will increase the use of recorded material as evidence.

- Be flexible - as you talk to potential suppliers you might become aware of opportunities to add additional functionality that you probably would not have thought possible.
- Costs can potentially be reduced by linking to other applications within the organisation, e.g. automatically importing details of new employees from the payroll system.
- The resulting system should aim to reduce any risks within the business that are associated with both people and property.
- When talking to suppliers you need to be prepared to ask detailed questions about what is and is not possible and to ask for the system to be demonstrated in a configuration that closely matches your needs.
- If a clear business benefit cannot be identified then there is no requirement for integration.

The important point to note is that there are no right or wrong security solutions; only those which are appropriate to the requirements and budget of your particular company.

security provider will discuss your needs with you, rather than trying to sell you an off-the-shelf package.

GBSG AND INTEGRATED SYSTEMS IN ACTION – CASE STUDY TWO

At GBSG we have a proven track record of providing integrated and traditional security solutions to meet clients' needs and to save them money.

SETTING UP INTEGRATED SYSTEMS

- Think through the basic requirements and talk to potential users of the system in other job functions including Human Resources and IT.

The important point to note is that there are no right or wrong security solutions; only those which are appropriate to the requirements and budget of your particular company. Security systems work best when functioning as a holistic solution to specific on-site risks. Any worthwhile

A Lincolnshire Aircraft Component Manufacturer

GBSG have provided manned guarding on the site since 1999 and were responsible for manning the gatehouse, as well as operating the telephone, barrier and



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weighbridge. Due to the value of the product on site there were four instances of theft of Titanium (a loss of up to £250,000 each time), where the intruders gained entry by tailgating and used force on a number of occasions to break through the barriers when leaving the site.

Following a site visit to review the situation, GBSG installed rising kerb blocks, and incorporated the existing manual gates to configure an automated air lock system. The gates would be closed behind the vehicle before the kerbs were lowered; the opposite on exiting. Removable bollards were erected at the side of the air lock to avoid vehicles coming in side by side. In the event of a large vehicle entering the site, the Guard would override the air lock with proximity tag and pin lock; the system reverting back once the vehicle has moved on.

Staff now use the pedestrian gate, presenting proximity tags which are programmed for roll call muster, and time of attendance for accounts payroll. Misuse

of the tags is prevented by the activation of live CCTV recording when the tag is used. IP Intercom systems are installed at the pedestrian gate and barrier. Four separate CCTV systems have been installed on site all of which are connected together via an external network allowing the system, comprising a total of thirty-four cameras, thirteen of which are fully functioning dome cameras, to be controlled from a single control point. The guard has full control of the cameras, using a touch screen to move around the site, directing the dome cameras as necessary. During the daytime the site is also being monitored, and can be operated from GBSG's Control Centre. The guard has instant

support if needed, as both parties can operate the system simultaneously. When the guard's daytime shift finishes, the GBSG Control Centre takes over sole control of the whole site (including access and cameras, arming perimeter detectors for additional cover) and in the event of any activity GBSG Mobile Patrols will attend.

Orders have been placed for further access control systems, and for nine separate fire alarm systems which will be linked into the CCTV system, providing a complete integrated security system for the customer, with an estimated 60% cost saving over their original annual spend.

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USEFUL REFERENCES

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|----------------|---|
| BS 7807:1995 | Code of practice for design, installation and servicing of integrated systems incorporating fire detection and alarm systems and/or other security systems for buildings other than dwellings |
| BS 8495:2007 | Code of practice for digital CCTV recording systems for the purpose of image export to be used as evidence |
| BS 8418:2003 | Installation and remote monitoring of detector activated CCTV systems. Code of practice |
| PD 6662:2004 | Scheme for the application of European Standards for intruder and hold-up alarm systems (UK interpretation of EN 50131-2-3:2008) |
| BS 5839-8:2008 | Fire detection and fire alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of voice alarm systems |