

BEHIND BARS

Stephen Smith looks at technology trends in prison security, and the part integrated security management systems (ISMS) play

Keeping prisoners and prison staff safe is a pressing concern for the UK's Ministry of Justice. Barely a week goes by without a suicide or violent incident being reported in a system that appears overcrowded and underfunded. The figures speak for themselves.

According to World Prison Brief, the UK prison population numbered just short of 85,000 as of December 2017, including almost 350 in immigration removal centres. This is against an official capacity in the prison system of just over 76,000, housed in 123 establishments.

The challenge is not simply in the volume of prisoners or staff that need protecting; it is also in the age and condition of the facilities in which they are kept. And this is an issue that does not only affect prisons in the UK, but also those in the Middle East and all over the world.

Prisons that are new have security designed in from scratch; with older prisons, technology often has to be retrofitted and this presents its own set

THE LEVEL OF CONTROL AFFORDED BY TODAY'S ISMS WILL MAKE PRISONS SAFER PLACES TO WORK

of challenges. Helping to meet those challenges, however, are the latest Integrated Security Management Systems (ISMS) that take 'traditional' PSIM to another level, and afford prison operators a level of reliability, integration and control that previously wasn't possible.

Prisons were early adopters of the concept of integration, though the complexity was often limited to integrating fence detection technologies with staff attack alarms and CCTV. The information was traditionally displayed on a Mimic Board within the control room, with LEDs or lamps to indicate where an incident had occurred, transposed on a site map of the prison. General alarms (or personal attack) along with other alarms could be identified, and call systems installed for each cell monitored at a wing level only. The major issue that prisons faced was one of reliability and system redundancy, which was largely nonexistent.

Older systems, and even those that featured

the first-generation PSIM technology, were cumbersome and inflexible and offered only very little real integration capabilities. Fast forward 10 to 20 years, and the new generation of ISMS technology, such as Genesys 2, provide such a level of reliability and failover that they are essentially 'failure proof'. Since each computer within a Genesys network can effectively become its own master, it has removed one of the biggest headaches that prison operators used to face.

EVER-EVOLVING RISKS

The technology available today to protect prisoners and staff is designed to keep pace with a new range of risks. On-fence detection systems and sensors are now complemented by further layers of detection, including motion alarms, radar/laser systems to detect objects thrown over the wall, and even bespoke technologies to detect the very latest threat – drones.

Primary systems are supported by secondary systems, including microwave and other technologies 'at the edge'. This allows different levels of alarm to be activated, depending on how many sensors have been triggered and the appropriate response deployed. A personal attack alarm, for example, will receive a different level of response to a PID alarm, but both can be managed via the ISMS, which also allows a more accurate assessment of the threat to be made.

Modern ISMS support better decision making. With the increasing use of electronic locks, for example, individual cells or entire wings can be shut down with ease. Taking that decision, however, comes at a risk; locking a wing unnecessarily can put prison staff and the prisoners themselves at greater risk; conversely, failing to lock down a wing could cause even greater issues, especially in the case of riots – or what are currently termed 'acts of concerted indiscipline'.

ISMS provides operators with accurate and timely information, with clear workflows to enable operators to follow the appropriate escalation procedures. This might mean bringing in dedicated control and restraint teams, dog handlers or medical staff. This might mean also having to override their access privileges, to allow them quickly and safely into areas that they might not ordinarily be able to go. All of this and more can be controlled via the ISMS, as well as intercoms and airlocks to ensure



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only authorised personnel are allowed to pass – even if that is on a temporary basis.

DATA WHEN IT'S NEEDED MOST

Another benefit of ISMS technology is that it can store and present data when it is needed most. For example, a pass may be presented at an airlock and the ISMS can display both the cardholder's name and image, which can be instantly compared with the live CCTV. It also enables site maps to be easily updated, so that the operator is always looking at the most up-to-date layouts. With Mimic Boards, it was not unusual for control room staff to update wing layouts or room name changes with markers or Dymo labels. ISMS creates a level of professionalism and organisation that in turn supports a more professional and organised mind-set from the control room staff.

The integration capabilities of the new generation of ISMS enables prisons, and prisoners, to be managed

more comprehensively, and reliably. Information, for example, on prisoners who are on watch can be instantly accessed when needed and a detailed log recorded and stored of when they have been visited. Knowing information about their health or mental well-being can be vital in an emergency, and available at the operator's fingertips in the event of an alarm.

Guard Tours (referred to as 'pegging') can also be easily accommodated within ISMS, and abuses of the system all-but eliminated. The old barcode and button systems are being replaced with wired token activated readers with LED indication to show when the watch is due, all events are logged and if a point has timed out then alarms are raised in the control room and reports automatically printed out.

A challenge with any system that requires an officer to press a button, scan a barcode or present a tag within a certain time frame is defining what that time frame should be, and reminding officers

that the check should be made. Systems can now feature LEDs at every touchpoint, which flash to remind the officer of their obligation. If the button isn't pressed before the LED stops flashing, an alarm can be immediately generated, as the officer may be in danger. The control room will know the precise location of the officer at risk and can action the appropriate response.

TOKEN GESTURES

The same is true with cell systems. Officers usually present a token/tag to indicate that they are present. At that point, the cell call button 'mode' is changed; if it is activated it will alert the wing office and control room that the officer is under attack. Similarly, if it is not pressed within a defined time period, it will automatically generate a staff attack alert at the wing office and main control room. What is especially clever about this technology is that it requires a new token for the system to be re-set. This prevents the prisoner from assaulting the officer, stealing his tag and disabling the alarm.

Prisons are complex places, and the levels of security will, of course, vary depending not only on the structure and fabric of the building, and its age, but also the category of prisoner inside. One of the key advantages that systems like Genesys provide,

however, is better management of resources.

Prisons within the same location that might each have their own control room can look to centralise operations to a single control room after lock down. The same rationale that critical infrastructure clients apply to protecting multiple facilities cross-border can easily be translated into a prison environment, with separate facilities managed from a single site outside of peak periods. Not only does this have a

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dramatic impact on costs, but it also delivers a better service. One control room with busy and alert staff is proven to be more effective than three control rooms where little or nothing is happening over many hours on duty.

The level of control afforded by today's ISMS will make prisons safer places for prisoners, visitors and staff. In the future, they will not only be about security, but also used as a tool to monitor health and well-being. And the future is already here ●

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Modern ISMS technology allows operators to monitor prison security from a single central control room

