

White Paper

Securing British Hospitals
with Effective Key Management

Synopsis

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<http://www.gov.scot/>

This whitepaper discusses how key management can improve security and Health & Safety processes within healthcare.

facility time consuming and reliant on multiple manual procedures.

Introduction

Security and Health & Safety is crucial when it comes to providing optimum patient care at healthcare facilities of all shapes and sizes. Automating exits and entrances and making access control an integral part of the security process is one solution that NHS Trusts are implementing, to better protect staff, patients and visitors.

Key and asset management solutions are able to meet many of those challenges presented by the age and infrastructure, as it is able to automate processes that are seen as the 'weak link' in the security chain. For example, keys to doors that act as barriers to sensitive areas, equipment and even vehicles have to be issued manually, with often no more than a paper-based sign-in / sign-out procedure to manage it. Keys to drug lockers on wards too, are often dispensed by the ward nurses, with little if any processes in place that records who took what and when.

However, the installation of new doors and integrated access control is a costly investment, and due to NHS budget restrictions, not every safety and security procedure can be automated. This challenge is made even more difficult when considering the infrastructure, size and layout of NHS buildings in the UK.

Key and asset management technology is able to automate processes, and achieve greater levels of control and monitoring, even in challenging environments.

In Scotland 29 percent of NHS properties are between 30 and 50 years old and 26 percent are over 50 years old*1. This makes securing a health



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<http://www.hefma.co.uk/about-us/news/item/new-figures-show-lots-of-nhs-buildings-are-unsuitable>

*3

http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/perspectives-estates-nhs-property-nigel-edwards-jul13.pdf

Estate Management

Managing the estate of an NHS facility is a difficult challenge with many aspects to consider. Maintenance, people and asset management are time consuming, critical jobs. Not only are facility and site managers requested to keep the building operational, they are also asked to optimise its usage and keep costs to a minimum.

Flexibility

The challenge is that one fifth of NHS buildings are actually older than the NHS itself, with many pre dating 1948, and some wards are actually as old as 1700. On the other side of the coin, many new buildings are deemed as 'over-specified', built for a specific purpose, which makes them inflexible when the requirements of healthcare change. *2

Providing flexible access within a building at the same time as upholding Health & Safety and security standards is a difficult task, but the right technology can provide the answer. By utilising key management you can authorise and monitor who can gain access to areas of a building, where automatic doors and access control cannot be easily or cost effectively installed.

This is particularly useful for NHS buildings that wish to facilitate 'dual usage', so that the community can also access the building. In older buildings it may prove to be a cumbersome, time-consuming task to grant access to volunteer groups and other organisations, as security and access will have to be carefully considered. A Traka key management system would allow access rights to be pre-approved, and can even set a curfew on the key so it can only be accessed by the right person at the right time.

This could also be the case for back-office functions. A report by the The King's Fund 'NHS buildings: obstacle or opportunity?'* states that: "A significant amount of NHS estate houses back-office functions and services that could be provided in much lower cost buildings." However, those back-office functions can often be responsible for storing personal data on staff and patients that must be secured sufficiently. Housing this in an older building without access control can have serious consequences should the data be lost or stolen.

Traka systems can be used to protect storage rooms, even in older buildings, as the technology monitors who has accessed the key and when, creating a greater sense of accountability. It enables a full audit trail, so if there are any discrepancies in usage, it can be reported on centrally. *3

Key management used in this way can ensure that regardless of the age or specification of a building, the facility can be used in many different ways, whilst maintaining Health & Safety and security standards.

In very sensitive areas of a building it may be necessary to create a 'closed loop'. This means that if a user, who has a credential to enter and exit the area or building, is still in possession of the keys they can be denied egress until the key is returned. This is only possible when integrated into an access control system.

Access Management

Hospitals and healthcare facilities process a heavy footfall across large expanses and there are often multiple premises on one site to manage access for both staff, patients and visitors. Within a hospital there will always be restricted areas, where it would be dangerous for unauthorised people to gain access.

Because of the age of some NHS properties, as previously discussed, managing access to all of the restricted areas within one facility is a particularly difficult task. Most hospitals are still operating under a sign-in / sign-out method for key issuing, leaving room for human error, as well as taking up significant administration time and effort.

By installing Traka key management systems, authorised personnel can use their existing credential to access the keys they need, without

having to depend on locating the security team to release them.

As well as automatically restricting access to unauthorised users, it can also generate reports on who has taken and returned certain keys. The curfew functionality means that if a user has a key, and the time expires, staff managing the system can be notified. This is particularly helpful from a Health & Safety point of view, as it can alert managers to the fact that a member of staff has been in a restricted area with dangerous equipment on their own for a certain amount of time.

Sophisticated key management systems allow you to monitor and report on who has used keys, when they have returned them and if there are any discrepancies in usage.





Traka can be programmed so that if licenses for particular equipment or vehicles expire, it automatically locks off access.

Vehicle / Equipment Management

Larger sites will often require vehicles to help manage the site and travel from the different buildings within and around the property. However, the management process of who has access to these vehicles should be considered carefully. The Health & Safety implications are serious should unauthorised and untrained people gain access to the keys.

Traka can be programmed so that if licenses for particular equipment or vehicles expire, it automatically locks off access. This not only provides Health & Safety benefits, but it also lessens the administrative burden. Rather than remembering when licenses expire or are due to be upgraded, administrators can be notified when they are due for renewal. It also means that there is no room for human error or 'forgetfulness', as the key is automatically locked out if there is an oversight.

This can also be utilised when managing equipment, where regular training and health

surveillances are required to ensure safe operation. The concept is the same, when the dates of renewal are programmed into the software, keys are automatically locked off when they are reported as out of date.

The prevention of drink driving is imperative for all businesses and organisations, but the risks to vulnerable people are heightened when working in a hospital or healthcare environment.

Alcohol testing is a solution that can be carried out manually, although this process can leave room for absent-mindedness and create feelings of discomfort for staff, as well as additional resource needed to undertake the test.

To eradicate these issues and provide an effective automated solution, the Alcolock® ds-10 from Traka, breathalyses all or a random selection of authorised forklift operators before issuing the keys. Thus creating a simple solution for alcohol Health & Safety compliance.

Drugs Management

Currently, drug dispensing on wards is mostly managed by a sign-in / sign-out method, and the success or failure is based on the diligence of ward staff. This process, in many NHS Trusts, has proved to be vulnerable to human error, and in extreme circumstances cases, purposeful misuse.



Through working closely with NHS Trusts across the UK, Traka has encountered many being concerned with the theft of drugs, with staff dispensing them for themselves. This is both a serious Health & Safety and financial concern for wards. An intelligent key cabinet from Traka allows staff to access keys with their existing credential. The system is programmed so that only authorised personnel are able to take the key.

As an extra precaution, particularly when dispensing extremely sensitive drugs, the system can be programmed to require dual authorisation. This will mean that two members of staff will need to use their credentials to access the drugs cabinet, making it more difficult to cheat the system.

Not only does the system physically restrict staff from opening drug lockers that they are not authorised to, it also creates a greater sense of accountability. Ward managers are able to identify who has taken what and when. This means that if there are any stock discrepancies there is a wealth of data available.

In some cases, these reports have actually been used successfully during investigations, leading to staff admitting wrongdoing and helping the Police to collect evidence that can stand up in court.

The keys inside the system are locked into place by Traka's secure iFobs, which means a hierarchy of access rights can be given to each key, depending on the strength and skill of administering each drug. So within the cabinet, only certain keys will be available, depending on predetermined access rights.

This in turn makes drug dispensing safer for patients, as only trained individuals can gain access based on previous training and experience. It also means that in busy wards the temptation to cut corners and let untrained nurses and support staff administer potentially dangerous drugs is unlikely to occur.

Another benefit of installing automated key cabinets is that it reduces administration tasks and ancillary processes for busy ward staff. A 'sign-in / sign-out' method means that somebody has to be responsible for keeping the records up to date, putting the burden of drugs management on one or two individuals per ward.

Automating this process means that it is less likely for a key to go missing, and if it does there are reports that show who had it last. In busy wards, very often it is the lead nurse that will keep the key to the cabinet on their person. Not only does this mean more work for them, issuing keys in between taking care of patients, it also means that when on a break or on other duties, it can be difficult to locate the key. This can seriously affect the care of the patient.



Brighton & Sussex NHS Trust

At Brighton and Sussex NHS Trust keys to drugs lockers used to be issued manually, with one member of staff acting as a steward. However, this led to human error, difficulties in locating the keys and additional administration duties for busy ward staff. Despite the thorough manual processes in place and the majority of staff remaining vigilant, stock discrepancies did occur, through error and in some cases theft.

This had serious Health & Safety, security and cost implications, which led the hospital to purchase a Traka key management system. The keys to the drug lockers are now stored within the intelligent key cabinet.

Through the ward staff's existing credentials, only authorised personnel are able to access the cabinet. Further to that, the keys inside the system are locked in place by Traka's secure iFobs, which means a hierarchy of access rights can be given to each key, depending on the strength or skill that administering each drug requires. Within the cabinet, only certain keys will be available depending on the pre-determined access rights.

To maximise the security of the system, the Traka key cabinet has been programmed so that two members of staff need to swipe their credential

to take and to return a key to the system. This creates greater accountability and encourages best practice amongst ward staff.

Simon Whitehorn, Head of Security for Brighton and Sussex NHS Trust said: "The Traka system has made a massive difference to the drugs dispensing process on the wards. From a Health and Safety perspective we can have greater confidence that drugs do not get into the wrong hands, or that untrained workers can not get hold of drugs they are not authorised to administer. From the ward staff's point of view, it has taken away timely administration tasks, and the frustrations of trying to locate keys when a patient is in need of medication.

"Accountability is also a major part of the benefits for us. Since installation, the frequency of stock discrepancies has been dramatically reduced. However, when there are questions raised, the reporting functionality that the system offers us lets us know who has accessed what key and when, so we can track down the individual responsible and find out more."

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Conclusion

Healthcare facilities and hospitals require the optimum Health & Safety and security standards and achieving them is not without its difficulties, particularly because of the current infrastructure of the NHS.

Utilising technology can help bridge the gap in the 'weak links' in security and safety processes. Key management is able to automate the simplest of hardware (keys), enabling facilities to restrict access and monitor usage. This in turn creates flexibility and cost efficiency.

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