

Simplifying key management for small to medium sized businesses and organizations

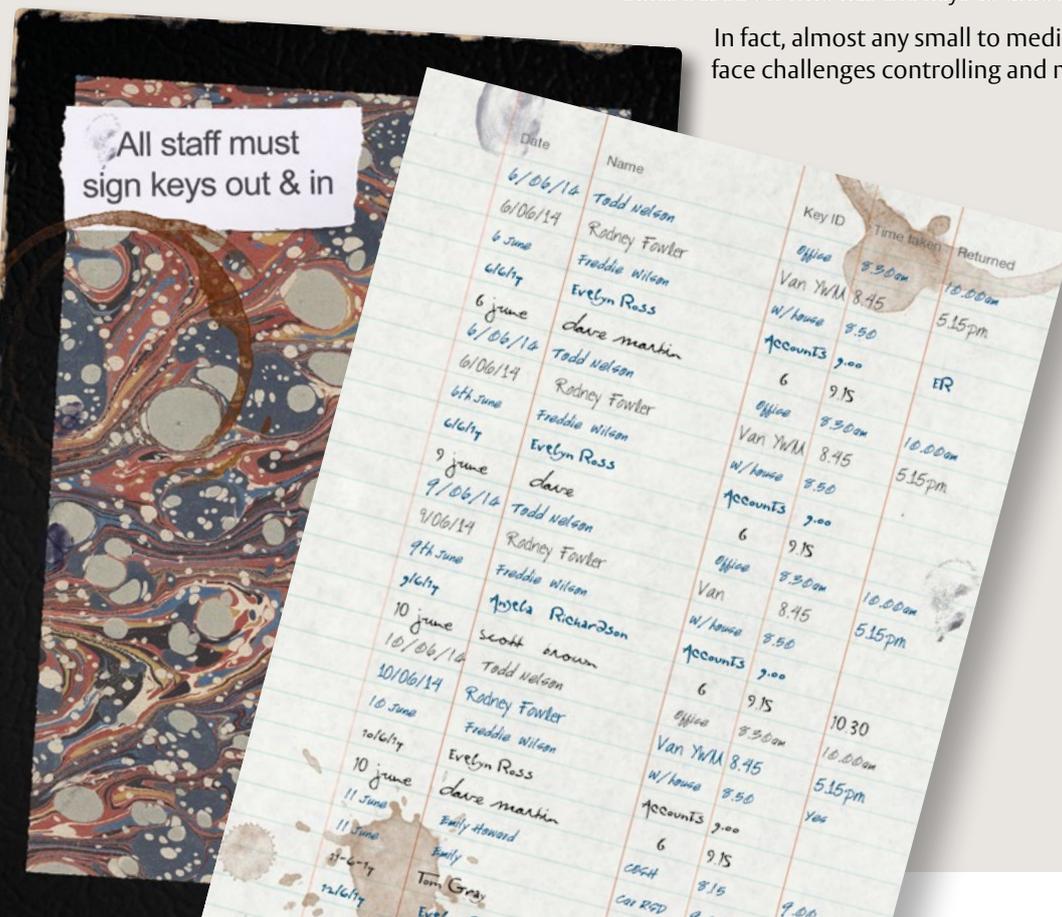
Keys are an essential element to secure many locations and devices, but keeping up with keys can be an ongoing challenge. Problems can occur in any business or organization that uses a dozen or more keys. How do you keep up with them all?

Think about the maintenance worker with a ring full of keys who doesn't know which one goes to what. Consider the office pegboard where keys are supposed to be hanging – and often aren't. The sign-out sheet for keys nearby probably hasn't been used in weeks. Picture that drawer full of stray keys and the time you had to go through every one to unlock a specific door or lock. How much time might a small business spend looking for keys? In an urgent situation, everyone might have to stop what they're doing and join the search – but at what cost to the business?

Keeping up with keys can be a common problem for a variety of business and organizations, including the following:

- Property management, including estate agents, multi-tenant office buildings, retail units, local residents' associations, etc.
- Doctors, dentists, veterinarians, chiropractors, etc.
- Healthcare. One UK study found that nurses spent as much as 40 minutes in an eight-hour shift looking for keys to drug cabinets
- Schools typically have many doors to lock or facilities to protect
- Hotels, or other hospitality businesses such as chalet resorts
- Small manufacturing sites, which must control key access to machinery as well as door locks
- Automotive dealerships and workshops – anywhere keys to multiple vehicles must be managed, including carpools and rental car companies
- Group homes and similar sites where facilities are shared
- Home help providers. For example, one company provides bicycles for employee transportation, and they need a way to track who is using which bikes based on who has the keys to unlock them

In fact, almost any small to medium sized business (SME) can face challenges controlling and managing their keys.



T21



No ordinary key management system

Controlling keys in a busy medical environment

Let's consider a real-world example of the challenges of key management and control. Mansfield Medical Centre is a busy medical practice, with seven doctors, three nurses, three healthcare assistants and five office administrators working to provide a wide range of health services to a steady flow of patients. The busy inner-city practice serves a total of 10,000 patients from its location in Coventry in the heart of the United Kingdom.

In such a busy environment, it is a challenge keeping up with the keys needed to open various doors and other locks throughout the building. Finding a needed key was a frequent source of irritation. If a key is used infrequently, who had it last? What if you need to unlock the back garden gate? Or a controlled room in the building? Or a drug cabinet? Or an electrical or gas supply when a tradesman shows up to do a job?

Chances are, no one will know where the key is. Perhaps someone failed to return it, or it was mislaid. Maybe the staff member who knows the location of a key is on holiday or off for the day. The time required to locate a key may seem like a minor inconvenience, but there's no time to spare in a busy medical practice. Wasted time adds up, and saps efficiency. Being a medical facility increases the challenge: You can't just knock on a door and interrupt a medical examination when you're looking for a key.

"We did have instances when people took the keys home with them," says Robert Smith, Business Manager of Mansfield Medical Centre. "They would have to return them to the office, which was inconvenient and a delay. It's hard to identify the real cost of poor processes and frustration."



Mansfield Medical Centre

A technology solution for controlling keys

Technology can help. But while there are plenty of key and asset management systems for enterprises and medium-to-large businesses, the systems have historically not been targeted to small- to medium-sized businesses (SMBs) such as Mansfield Medical Centre and literally thousands of others of all types. Many of these businesses have a critical need to manage keys more effectively, but available systems are too expensive and/or offer excessive functionality way beyond the needs of a smaller organization.

T21, an ASSA ABLOY product, seeks to fill this gap in the market by offering a value-priced alternative to larger key management systems that still offers plenty of functionality to meet the needs of smaller businesses. It's a plug-and-play product 'in a box' that is simple, efficient and cost-effective. The system leverages advanced RFID technology, and a touchscreen interface.

A customer just screws the T21 into the wall, plugs it in, and it starts working (there is an optional battery backup). T21 is easy to program, and can control access to 21 keys (or sets of keys) using personal identification numbers (PINs). No network connection or PC is required for setup. Keys are attached to 21 iFobs with security seals, which connect with 21 locking receptors that feature LED lighting. Each system can accommodate up to 1,000 users.



The system is easy to configure with the help of the setup wizard, supports multilingual functionality, and administers all user, key and access rights. T21 provides accountability; a screen-based audit trail and reporting capability provide a 30-day record of who had which keys; reports can be downloaded via USB port and edited on a computer. The unit also features audible alarms, and manual override and door release functions in case of an emergency.

T21 is available through dealer channels to customers of various ASSA ABLOY lock companies and through their relationships with locksmiths, lock resellers and other channel partners. It's a standardized, do-it-yourself product. There is no need for training on installation or setup; everything is intuitive and can be configured as easily as programming a smart phone.

T21 is easy to install and program Mansfield Medical Centre installed a T21 system to meet the challenges of key management. The do-it-yourself installation was very easy – just four screws into the wall. Robert Smith powered up the unit out of the box and was immediately able to start adding in users and keys by way of the menu-driven touch screen. “It’s similar to programming your iPhone,” he says.

When installing T21, Smith spent about a half a day collecting keys and analyzing how they are used, and assigning key positions and access privileges in the T21 cabinet.

Installation of the T21 helped Mansfield Medical Centre take control of its key problem. The busy medical practice currently uses 18 positions of the 21 available in the T21. The system keeps control of the 50 or so active keys. Smith organized the keys and grouped together key sets according to where the keys are used in the various parts of the building, and each set of keys is assigned to one of the 21 positions of the system. Employees are enrolled into the system, and the system provides quick and easy access to whichever keys they have permission to use – and only those keys. When keys are taken, the system ‘knows’ who took them and displays that information to anyone else looking for those keys.



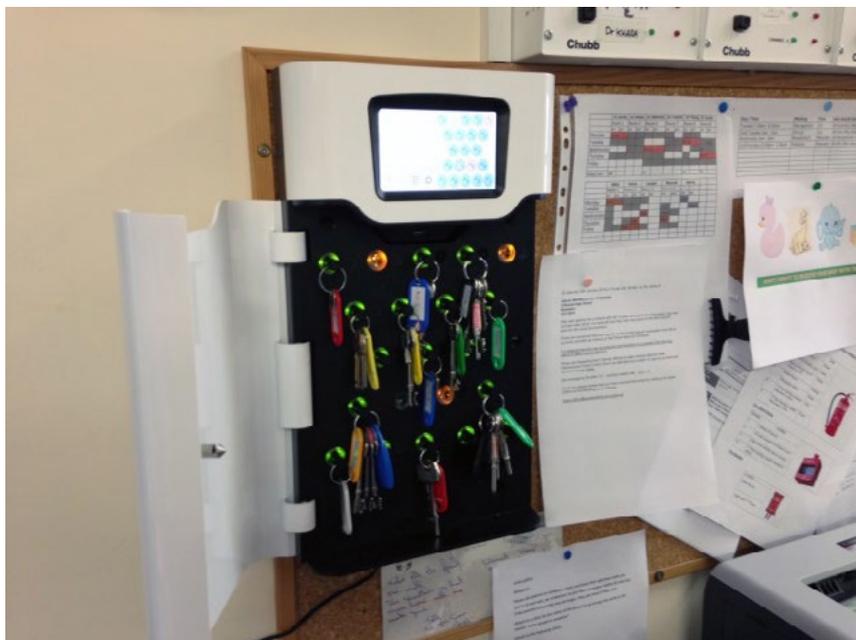
T21 enabled Mansfield Medical Centre to create standardized processes surrounding keys, including daily lockups and out-of-office access. After organizing the keys in T21, Smith collected around 30 'mystery' keys – they were redundant or nobody knew what they were for – and he put them aside in a box. "We haven't needed to go into that box," he says.

Taking control of key management

Taking control of the keys at Mansfield Medical Centre has greatly reduced frustration and saved time, says Smith. Keys are now stored securely, managed effectively and available whenever they are needed to members of staff. "One of the office employees said 'there used to be a lot of activity around keys, and that activity is gone now,'" he says. "Now it's a seamless process – you go to the cabinet and see the key you need, or you know who has it. I don't constantly hear the staff saying 'where is the key to this or that?'"

A big question mark in Smith's mind when installing T21 was how well it would be accepted by the staff. "My surprise was how quickly the staff adapted to it and how enthusiastic they were to use it," he says. A light shows a user which key they have selected, and if a key is not in its place, anyone can press an inquiry button to find out who has the key. Since the cabinet was installed, process efficiency and staff morale have improved, and T21 is now seen as a seamless and accepted benefit; using it is second nature to the staff. Everyone is responsible for owning the keys they take and know that are accountable to return them. No more shouting across the office: "Who has the key?"

Smith trained office staff one-on-one as he was setting up the system. The administrator assigns each user a personal identification number (PIN), and they can choose their own number instead the first time they use the system. It only took Smith two or three minutes to show each user how to change their PIN, to open the door, and to demonstrate which keys they have access to. They just press the key location on the screen to release the key. A list inside the door shows them where their keys are located in the cabinet. If they put a key in the wrong position, the cabinet will designate with a circular green LED light where the key should go; a red light indicates if a key is in the wrong position.



"It's very simple and effective in terms of having access to the keys 100 percent of the time, and always knowing where your keys are," says Smith. "We have a large number of people wanting to access a relatively small number of keys."

Smith also likes the "engineering and robustness" of the T21 box. Weighing less than 10 pounds, it is strong and sturdy, and offers a nice balance of technology and ergonomics, he says. The stylized industrial box is an aesthetic complement to an office environment. Made of aluminium and acrylonitrile butadiene styrene (ABS), a common thermoplastic polymer, the box has no exposed hinges or obvious access points. Smith says T21 tends to make people to want to use it – almost like an iPhone or an iPad. The touch screen and ergonomic approach provide a positive engagement that draws people in, he notes.

Educating the SMB market about key control

While technology exists to effectively manage key control, the SMB market needs to be educated about the availability of technology to effectively manage their keys. The need is there, but many small business owners are unaware that there is a system that can help them. They may not have considered the total costs associated with managing (or rather with mismanaging) keys. In addition to frustration and the time spent looking for keys, there is also a resulting loss of productivity and possible missed opportunities. Analyzing the problem carefully points unambiguously to the need for a solution like T21.

Questions such as the following can point any business in the direction of analysing the possible return on investment (ROI) of an intelligent key management system:

- How much time do you waste at the beginning of shifts locating keys?
- How much money do you waste on replacing lost, stolen or damaged keys?

Let's consider an example:

- Number of staff (17) who each spend 10 minutes per shift looking for keys.
- 17 employees X 10 minutes = 170 minutes (2.83 hours) lost per day locating keys.
- Multiply hours lost by average labour recovery rate: 2.83 x \$106.14 = \$300.37 loss per day.
- Average loss per day: \$300.37 x 5 days x 4 weeks =
- Total loss per month: \$6,007.52

In many cases, protecting keys can translate directly into cost savings. In the case of protecting master keys, for example, a key control system eliminates immediately the possible costs of replacing multiple locks because a key is lost. Protecting keys to computer rooms, for instance, is a critical aspect of cybersecurity: Physical access to a server is the easiest way to steal data or launch a virus, which could have costly consequences.



Key management in a small manufacturing company

Small manufacturing is another ideal environment for a key management system. Consider Dura Workshop Systems, which manufactures metal cabinetry and workshop furniture for a variety of environments, from automotive and motorcycle workshops, to commercial workspaces, to residential garages. Dura originated the 'fitted garage concept,' including a line of garage cabinets, garage flooring and garage storage solutions. Founded in 1997, the company's design and technical sales functions are centrally located in offices in Brackley, Northamptonshire, U.K. (halfway between London and Birmingham), and there is a state-of-the-art manufacturing facility in Plymouth Devon. Dura employs about 70 people across the two sites, including about 20 employees in Brackley who handle project planning, sales, administration, warehousing and professional installation. The U.K. business ships worldwide, and use of their workshop products is recommended to dealers by premium automotive brands such as Audi, Jaguar, Land Rover and Aston Martin.

Dura's Brackley office operates a small fleet of seven or so light commercial trucks and vans to visit customer sites. The company also has a counterbalance forklift truck used to load/unload vehicles and to move pallets around the warehouse. There is also a company 'pool' car – a passenger car for general usage related to company business.

Keeping up with the keys to the truck fleet and other equipment previously involved a low-tech approach: Keys were kept on hooks inside a cabinet, and a manual vehicle register log, using traditional pen and paper, kept track of who had the keys to which vehicle. Complicating the process was the



fact that only certain people were authorized to use certain vehicles. Inside each vehicle, drivers would manually log in the date and time of when they used the vehicle. Keeping records was critical since Dura is legally liable if someone is caught speeding or has some other motoring offence when driving a company vehicle.

Dominic Wishlade, Managing Director of Dura Workshop Systems, saw the T21 product on the Internet and later visited the company's premises, within an hour's drive away.

Installing the T21 was simple and straightforward and "took about five minutes," says Wishlade. "It's a cost-effective solution, relatively inexpensive, quick and easy to set up." Anyone can access the box if they have the code, so it doesn't require anyone else to be present to monitor which keys are taken. "It will only provide access to the keys they are allowed to remove." About a dozen people at Dura have access to various keys and are enrolled in the T21 system.

The system also keeps a rolling log of who took which keys, and can create an easy-to-use report to monitor specific details of vehicle usage. "You can save the information on a USB drive and download it to the PC, and then do what you like with it," says Wishlade. The ability provides control and visibility into when someone has taken a vehicle out and brought it back, says Wishlade, as well as information on peak usage.

Controlling access to keys can also help to address health and safety requirements. For example, access to keys to drive the forklift truck is limited to those who have taken a training course. Once someone takes the course, permissions of the T21 system can be amended to provide them access to the keys.

"T21 allows me to be off-site, and it's not a disaster if someone needs access to the forklift – they can get access to it," says Wishlade. "They aren't stuck with a delivery they can't make."

"The nice thing about it is, it solves the problem," he adds. "It was not difficult to get people to buy into it. One of the tricks is to let people choose their own PIN number."

End users embrace the award-winning product

T21 has won numerous industry awards, including the Good Design Award 2015 presented by The Chicago Athenaeum: Museum of Architecture and Design. It was a finalist in the Access Control Product of the Year Category presented by IFSEC in 2014. T21 also won a 2015 Silver Merlion Award in the Access Control Category presented by Safety & Security Asia (SSA) together with the Security Industry Institute (SII).

"The nice thing about the system is that, as you go along, you can add additional T21 systems, with each offering a 21-key capacity," says Wishlade.

"It's a great new product at a price that makes it viable to use," he adds. "They've got it just right. There's a level of sophistication, but it's not overly complicated and not something else you have to learn to use. You open the box and enter your PIN code, and it tells you which keys you can remove with green and red lights."

In fact, Wishlade sees an opportunity to re-sell the product to his own company's customers, which include workshops at automotive dealerships that have to keep up with keys every day. In an automotive workshop with 10 to 20 work bays, keys could be kept handy and accessible in a T21 box, while limiting only access to authorized employees. He says T21 might even be attractive to (probably more affluent) homeowners, who may have multiple vehicles, and/or boats and/or riding lawnmowers and/or a variety of household keys to keep up with.

What is the biggest benefit of T21?

"Convenience," says Wishlade. "It's combining security and convenience in one go."

T21

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