CaptureTech
next level traceability

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We approach Key Management differently

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In our opinion, key management is not about electronic key cabinets. It is about managing your keys in the most efficient, secure and reliable manner, and that manner should financially fit your particular business case.

Therefore, our approach is different. We always start at the heart of the system -,the intelligent seal, or KeyCop. We analyse your specific process and then develop a solution around it. This might be simple "plug and play" registration software and a barcode scanner, or a full automatic storage and Pick to Light system for thousands of keys, and anything in between.

KeyCop

The heart of our solutions is the KeyCop - an RFID enabled seal to which the keys are attached. Once attached, the keys cannot be taken off the seal unless the wire is cut, which will unravel the cable:

The KeyCop is available in any colour or pair of colours and can be laser engraved with any text, logo or barcode.

The KeyCop contains a standard Ultra High Frequency (UHF) RFID tag, in which information, such as a specific number, can be stored. This allows the number of the seal to be retrieved in any one of three different ways: by the readable number on the seal, by scanning the barcode, or by reading the RFID tag. These multiple options make it possible to set up your key management solution exactly how you want it. If you for example want to register

outgoing keys by scanning the barcodes, you can, but you could also decide to use a standard UHF RFID reader/ antenna to read multiple seals in one go!

Why UHF RFID?

There are various frequencies available in the market today, but the latest technology is Ultra High Frequency, or UHF. The reason why we have chosen to use this standard technology is that the reading distance of the RFID tags is the best available, and that the technology supports so-called multiple tag reading. In other words, this enables you to automatically read multiple sets of keys in one go! Apart from that, UHF (EPC Class 1 GEN2) has become the standard and the largest chip manufacturers worldwide are focusing their R&D on this frequency only.

What are the next steps once I have the KeyCops?

You have to look critically at your key management process. How many keys do you have, how does registration currently take place, where does it go wrong? For environments where not many keys are issued and collected, or not very often, it may well be that simple "plug and play" registration software and a barcode scanner connected to your PC are enough to do the job.

However, the KeyCop enables you to be flexible and choose out of various options for the register of issue and collection of keys. You could identify the sets of keys by means of an RFID reader/antenna, which could be a simple desktop version or integrated in a counter. Or if you wish to integrate the antenna in the ceiling above a door entry, you could also do that.

Pedestals, advanced gates, cabinets - the possibilities are endless with UHF RFID technology.

Key Management Software

CaptureTech has developed a unique and modular software application that can be extended with branch-specific modules, in order to fulfill all your branch-specific requirements. In other words, this is no "one size fits all" application where you always miss out on functionality that is specific to your business, but an application where you do not have to settle for less in terms of functionality.

Of course, master data such as individual keys, sets of keys, users, etc. can be maintained in the standard application, and the registration of in- and outbound keys can also be maintained, independent of how you want to identify the sets of keys (manually, barcode scanning, RFID...). Additionally, full reporting is available, so you always have a full audit trail!

The standard version of the software can be extended with the inventory module, which is a very cost effective way to run an inventory of all sets of keys that are in stock at a particular moment. The inventory can be done manually, with the use of a barcode scanner, or very efficiently by means of a mobile RFID reader. The choice is yours!
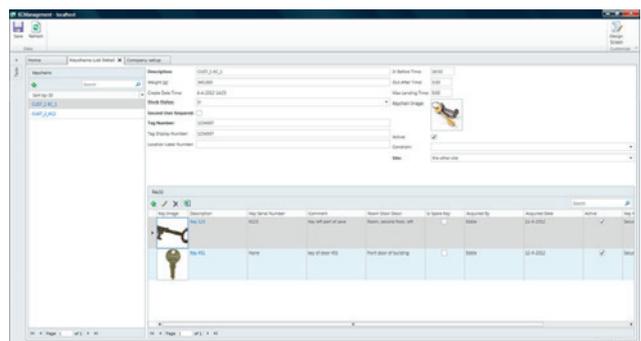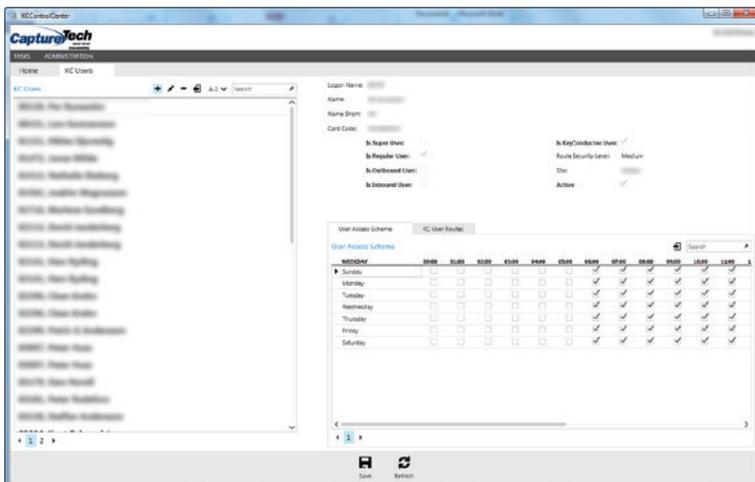
Electronic Key Cabinets

Some customers choose to store their keys in standard, non-electronic cabinets. Besides supporting these customers with the registration of issued and collected keys, we often help them to quickly perform an inventory of their stored keys by means of a mobile RFID reader.

Depending on the business case, there are customers who prefer to store their keys in an electronic cabinet, and for these cases we have developed a very flexible, scalable and affordable solution.

The concept is easy: the system consists of so called "blades" of 12 key positions. First you choose a specific cabinet size (for a maximum of 2, 4, 8 or 16 "blades"); you then decide how many "blades" of 12 key positions you want to put into the cabinet. If the size of the cabinet allows, you can always add additional blades in the future!

The next step is to decide whether the system should be based on Barcode or on RFID technology. If fewer than 100 keys or sets of keys are managed within your organisation, then often the Barcode option is chosen.

In order to collect the keys, the person logs into the system by means of the integrated keypad and display. The key(s) or set(s) of keys for which the person is authorised, lights up and is unlocked. Upon return, the person scans the barcode on the keyseal with the integrated barcode scanner and the slot in which the set of keys should be placed lights up. On insertion, the keyseal is locked immediately, which makes it impossible to remove or change the location of the keyseal afterwards. The

KeyConductor keeps a full audit trail of collected and returned keys, which can always be retrieved on the display, or which can be downloaded on a USB stick. Furthermore, the barcode version comes standard with a door and electronic lock.

The cabinet can easily be mounted and only needs standard power. With the user friendly wizard, you can easily create master data such as users, keys and authorisations on your PC. Once finished, the configuration is saved on a USB stick which is then inserted in the KeyConductor and your key management system is ready for use! Of course the KeyConductor can also be equipped with a network interface. In that case, you can send the
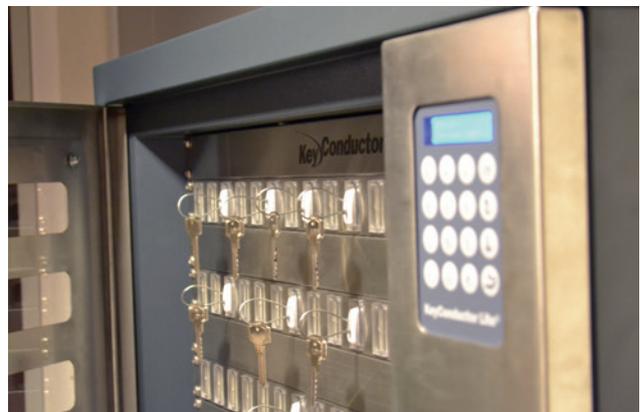
configuration file over the network to the KeyConductor, but you can also download the reports and audit trail from the unit through the network. Last but not least, also swipe card or proximity readers can be connected.

RFID technology for additional flexibility

If your application getslarger, you can add additional functionality to your KeyConductor, for example RFID technology. This enables random storage of the keys, as the system can automatically detect which key or set of keys is located where in the cabinet.

The barcode and RFID version of the KeyConductor run with the same software application, so you can install a mix of both versions in multiple locations and manage them from 1 central application with one central database!

Apart from the RFID functionality or the many already existing options, larger systems can also require other (additional) hard- or software features. We are more than happy to see how these requirements, client specific or not, can also be integrated in the KeyConductor!

Bulk registration of issued or collected Keyseals

Some applications require different solutions, and in these cases too, the flexibility of UHF RFID technology turns out to be very effective.

In environments where lots of keys are issued and collected in bulk, for example for drivers who need keys on a specific route, a different solution is required to take care of the change of liability. With the use of the KeyCaptor, this change of liability goes securely and efficiently. All seals are put in the KeyCaptor for a few seconds, after which the unique numbers are identified to check whether all the right key rings have been issued or collected. If a wrong key ring is identified, the system will detect it immediately and the user asked to intervene.

But it might be that, at collection, the right key rings have been handed in, but that one of the individual keys has broken off. While this is hard to determine whilst visually checking, the KeyCaptor offers a solution to this problem. Besides identifying the key rings, the KeyCaptor also weighs the keys and cross references the measured weights with the weights given in the master data. The system will hence automatically detect the slightest change that has been made to a key or key ring.

At the end of the day, the system automatically checks if all

the keys have been returned and it can send out warning messages at predefined time intervals if specific keys or routes have not yet been returned.