



- A secure card technology

DESFire

When you install a new access system or upgrade an existing system, you need to make some choices. One of these choices concerns which technology to be used on the cards or key fobs. You might even think about the possibility to use a smartphone to enter through different doors, gates or gates.

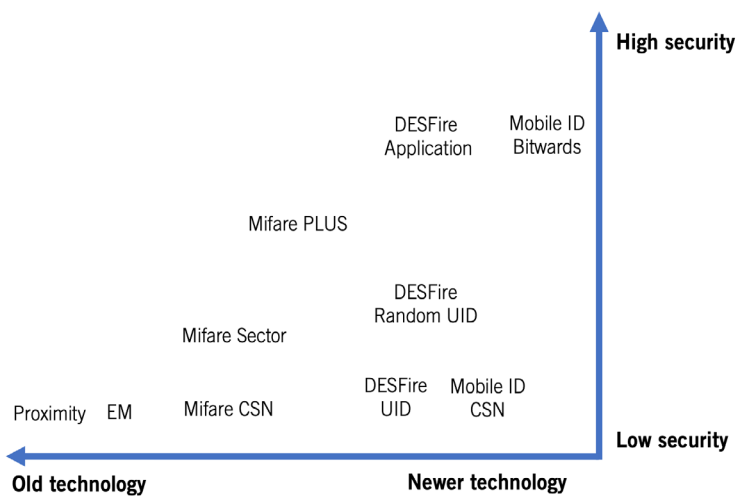


Why is the choice of technology important?

In the access system, it is determined whether someone is allowed to enter through a door or not. You usually show a card or key fob to a reader, and it's that reader's job to identify you. It does this by linking the number on your card or key fob to your identity in the system. If the number on your card is easy to change or copy, someone can steal your identity in the system. Then they can give access to people who really shouldn't be there. In conclusion, it can be stated that all types of serial numbers or open numbers easily can be copied without any advanced equipment.

What technologies are available?

There are various standardized techniques that one can use, and they all have different ways of working. All of them have a serial number on them, but some of them can also make the number secret, with the help of some kind of coding. Mifare DESFire is a type of technology that can make the number secret using encryption, which means that your identity is secure and cannot be copied by anyone else.



This is how we create simplicity and structure with Mifare DESFire

We simplify the entire process and create a structure for the DESFire application that fits your specific needs. This structure can either be stored safely with us or with you as a customer. It is important to ensure that it is stored securely to protect your safety. We take care of programming the cards or key fobs with the right structure. In addition, we create a configuration card for the Cidron card reader and a Lectio reading device to connect the cards to the right person in the access system.

We offer support and assistance throughout the entire process, regardless of which access system you use. Our Cidron card readers are compatible with most access systems on the market and can improve security in several different ways with the secure card technology. Contact us and we'll tell you more!

How does this work?

Mifare DESFire is a type of technology that is open for use in many different products and systems. Each card or key fob has a number that is stored in a specially protected folder. This folder is like a lock that can be opened with a highly secure 128-bit code, called AES key. The card reader that is equipped with the same key can then communicate with the card and understand, and send the number to the access system to identify who is at the door. Then the system can decide whether the door should be opened or not. This makes it very safe and difficult for someone to get in where they shouldn't be.



Information about DESFire

- Different versions (backward compatible)
 - 0.6 / EV1 / EV2 / EV3
- Unique 7 bytes serial number (UID)
- Optional Random ID for enhanced security & privacy
- DES, 3DES 56/112/168-bit encryption
- AES 128-bit Encryption
- Diversified Application keys are optional
- Multiapplication support
- Use "Mutual Authentication"
- Products for migration are available
- Catalogue structure, high security
 - 1 chip Master key
 - Up to 28 Applications
 - 32 Files per Application
 - 14 keys per Application
- Memory organization can freely define application structures on chip/card
 - 2Kbyte, 4Kbyte and 8Kbyte Memory
- Common Criteria certification: EAL5+
- Design by 

*Above are general facts. There are differences and security and performance improvements in the latest version of DESFire.