aeos

Security Solutions

End-to-end security

Protecting your physical access control system.

nedap | security management

www.nedapsecurity.com

Bringing IT best practices to physical security

Often, companies don't view access control systems as IT systems connected to a network. So the security principles used in IT haven't yet been imposed on physical access control systems. This oversight leaves these companies vulnerable to cyber attacks that can have a dramatic impact.

Nedap has developed a robust solution. By applying the latest principles of encryption and strong authentication used in IT, it achieves secure communication between and storage in all elements of the AEOS access control system. This increases security from end-to-end, and enables instant recovery if keys are compromised.

Keep DESFire keys on the safe side

Latest guidelines saying DESFire keys must be stored on the safe side of the door have been implemented in various European countries. To ensure companies can comply with, or even exceed, these guidelines, Nedap enables DESFire keys to be stored in a Secure Access Module (SAM) in AEOS door controllers.

Rijkspas ANSSI

When DESFire keys are not stored in card readers, the readers have no role in decrypting data – they become 'transparent'. Which means secure communication between card and door controller is guaranteed.

Nedap also offers this solution in combination with PIN verification. By storing the PIN in the controller, AEOS is suitable for high security environments.

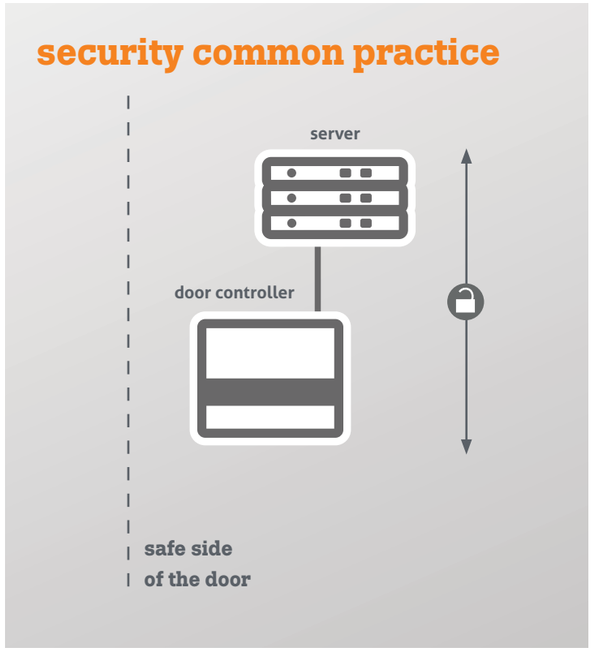
Secure Access Module

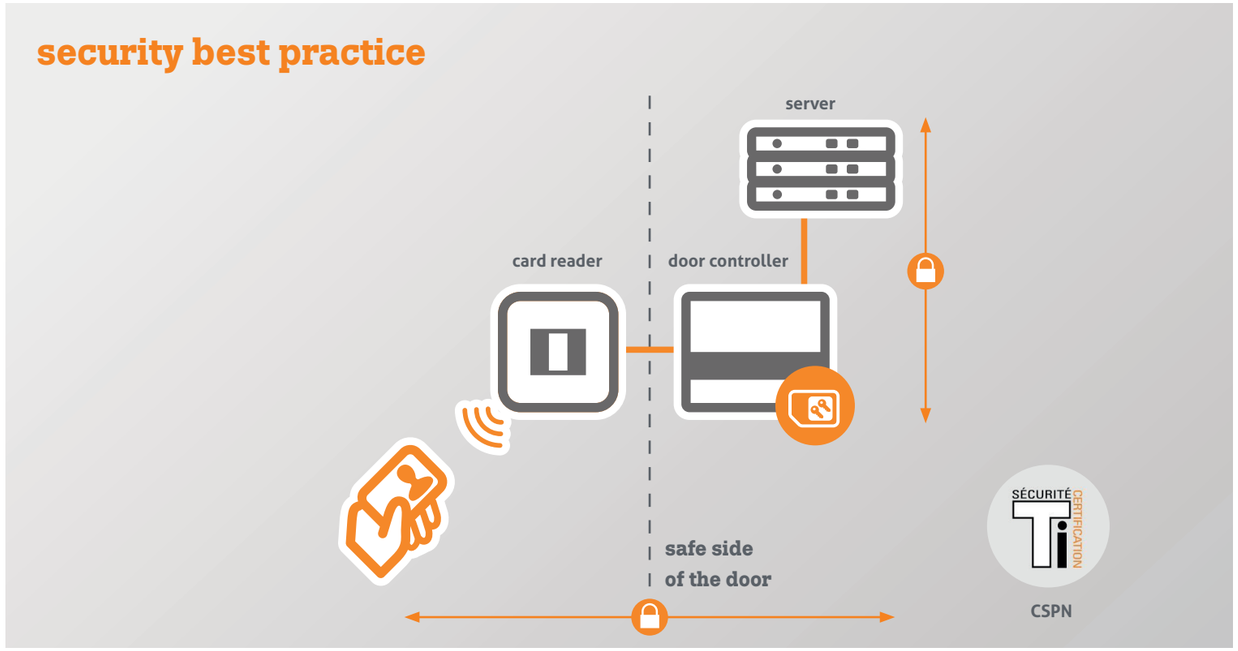
Enhances security and cryptography performance by:

- protecting and maintaining secret keys
- performing strong authentication

Applications:

- smart cards
- credit cards
- SIM cards in mobile phones





Strong authentication increases security

What is not addressed by the new guidelines for physical security, however, are the principles of IT security. These principles focus on building trust between devices through strong authentication. In AEOS, strong authentication is achieved by storing digital certificates securely in the SAMs in AEOS door controllers. This ensures secure communication between door controllers and server.

Digital certificates

Enable secure information exchange by:

- validating a sender's identity
- confirming a message is from a trusted source

Applications:

- sending email messages
- online banking
- securing WiFi connections

Benefit from the best of both worlds

By storing DESFire keys and digital certificates in the same SAM inside its door controllers, AEOS unites the best practices of IT and physical security into one end-to-end solution.

Improved defence against all threats

This end-to-end security offered by AEOS gives high levels of protection against both physical and digital attacks.

Storing DESFire keys inside the SAM in door controllers mitigates the risk of attackers getting hold of them. While strong authentication of door controllers ensures they cannot be replaced by manipulated versions. It is also impossible to connect alien devices to the network and send commands to door controllers.

Recover instantly from key compromise

AEOS's end-to-end security means secure communication between all elements of the system. This allows for secure key updates from one central point. So, you can update keys immediately when they are compromised – without physically going to each card reader.

Take total control

AEOS allows you to stay in control of the lifecycle of both the DESFire keys and digital certificates, and can be used to generate and distribute DESFire keys. Your digital certificates are authorised and managed by your own trusted certificate authority (online or offline), which can be connected to AEOS. AEOS then distributes the certificates throughout the system.

A proven and tested solution

Approved across Europe

AEOS end-to-end security meets a variety of security requirements across Europe, and is already being used to protect critical infrastructures in several countries.

The fact that DESFire keys are stored securely, for example, meets the Rijkspas requirements for physical access to Dutch government buildings.

In France, it has gained CSPN certification from the French information security agency, ANSSI. This gives the assurance that AEOS end-to-end security is a proven solution that's undergone stringent testing, and will contribute to a more secure workplace.

Upgrade to higher security levels later

Nedap develops and produces the entire AEOS access control system, including readers and controllers. You can implement end-to-end security measures after your AEOS system has been installed without needing to change, or implement additional, hardware.

AEOS door controllers can store a SAM as standard, and the firmware in AEOS card readers can be updated at any time, remotely. So you can implement AEOS now and upgrade your system to higher levels of security later.

Nedap & AEOS

Harness the power of AEOS

When it comes to access control, AEOS has set the bar for the industry. Its wide-ranging functionality, unique architecture, and the ease with which it allows authorisations to be managed, really set it apart. What's more, you can add built-in intrusion detection and video management functionality, and integrations with best of breed third party products, making AEOS a powerful security management platform.

Simplifying complexities since 1929

We have been making life easier for people for almost a century. It was 1929 when Nedap sprang into action, and today we have 750 people working with us across the world. Our experience in access control stretches back 35 years, and led to us developing AEOS, the first software-based security management system. At our headquarters in the Netherlands, we focus first on people and the challenges they face. Then we apply the latest technologies to solve their problems in new ways with products that are relevant, elegant and very user-friendly.

Why not get in touch to find out more about end-to-end security?

info@nedapsecurity.com