How do you design a fail-safe access control system?

Scenarios of a possible system failure

- **Network failure**
- **Failure of the PoE supply of the AccessManager / SmartRelay**
- **Battery of the closing component are used up**
- **Failure of an AccessManger / SmartRelay**

Preventive measures for failure protection

Setting emergency access for selected users

If emergency access is activated for a user, the respective identification number (RFID UID) of the user is stored locally in the wireless knob or door handle.
If the wireless connection between the wireless knob or door handle and the AccessManager is interrupted for one of the reasons mentioned above, user verification is carried out locally and users with emergency access are granted access despite the lack of an online connection.

Setting the notifications for battery ranges

An e-mail notification can be created for defined users, informing them about the battery levels of the radio knobs and door handles on a weekly basis.
If a knob or pusher reaches a critical battery level, it is informed of this on a daily basis.
In order for the notification to be sent, the e-mail configuration in KentixOne must be performed beforehand.

Setting of daily backup and restoring in case of device failure

Daily automated backups provide backup of logs and configuration content. In case of a necessary reset to factory settings or when replacing a defective device, all configurations can be restored directly. In this way, a so-called satellite can also easily take over the manager function in the event of the manager’s failure.

Monitoring of the network and components with AlarmManager (incl. SMS)

It is recommended to monitor the IP network connections of the AccessManagers or SmartRelays using an AlarmManager. If one of these connections is interrupted, the AlarmManager can immediately inform about this via e-mail, SNMP, SMS or push messages.

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UPS Protection of the locking system against power failure (especially WA systems)

To avoid failure of the wired Kentix access components, the corresponding PoE networks should always be connected to an uninterruptible power supply (UPS). Thus, even in the event of a power failure, any electromechanical door can be opened.

Emergency scenarios – What to do when nothing else works?

Opening of radio locking systems with system card

For security reasons, there is no **master** or **all-access card** that grants access in an emergency scenario.
The service card can be used to reset radio knobs and handles to factory settings. After reprogramming, RFID transponders can be taught in, which can be used in the offline function to open the door.

Use of the low-power adapter (Only for DoorLock-DC Basic)

If the battery of a **DoorLock-DC Basic** is exhausted, a low-power adapter must be used to open the housing for battery replacement.
The following video shows how the low-power adapter is used:

What to do in case of network or device failure?

If the network or the power supply via PoE fails, no wired devices can be used. In such a case, the above-mentioned **emergency access** is essential in order to be able to book at the knobs or door handles.
However, the **offline function**of the knobs can also be used retrospectively. RFID tokens can be taught directly on the knob using the service key.
In this case, it is essential to ensure access to the system cards.

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