# **Comparison: Online vs. offline**

Basically we differentiate between

at PC CADDIE between online

and offline systems:

MIFARE card system ONLINE	MIFARE card system OFFLINE
Recommended for flexible systems with several ball machines, doors, vending machines, etc.	Recommended for small systems where only 1-2 ball machines or doors are connected.
Cabling or WLAN connection to the PC CADDIE network required, plus appropriate technology (converters, etc.). Consequence: Networking costs must be calculated additionally	Cabling of the vending machines to the PC CADDIE network is not necessary. Consequence: Vending machine locations that are difficult to access can be equipped + cost savings
Software costs for online vending machine control. The vending machine hardware is cheaper as no mini PC is required.	Additional costs for the vending machine hardware due to the additional mini PC.
Guest access or credit is available with a PIN code. The guest obtains their paid services by entering an individually generated code. Additional guest cards can be saved.	Additional guest cards are required for guests. PIN code only possible at doors.
Control of automatically available discount and points systems (e.g. by day, time or customer status, special points etc.)	Simple points system possible (e.g. 1 point = 1 ball purchase)
Constant contact with the PC CADDIE system. The card chip is only used for identification. If the card is lost, the stored credit is transferred to a new card.	No direct contact with the PC CADDIE system. The card chip serves as a storage medium. If the card is lost, the value may also be lost.
All card values and authorisations are managed and stored online in the PC CADDIE system. No data loss.	Revaluation and devaluation data is stored on the chip.
Time- and day-specific statistics on vending machine sales and credit utilisation can be generated at any time, revaluation and devaluation take place in real time in the PC CADDIE system. Cards are blocked in the system and are immediately valid online everywhere.	You can obtain time and day-specific statistics by reading out the memory chip of the card reader and importing it into the local PC CADDIE system. Card blocking must be transmitted manually to each reader with blocking lists.
Real-time monitoring of the systems: Access, ball machine withdrawals, access changes, functional statuses can be checked and changed immediately	User histories are determined by reading out the data. Functional readiness through local control

# **Further options**

# Combination

It is possible to operate online and offline systems side by side in one system. This is particularly useful if, for example, you want to control the door readers within the building online for your access

control, but the automatic ball machine is operated offline due to a lack of network connection.

Vending machines at which sales bookings are made must not be combined online / offline

## Offline radio system

The offline radio system allows the advantages of the offline system (see above) to be combined with some of the features of the online system.

#### Advantages compared to a pure offline system

- Immediate entry of card usage in the database  $\rightarrow$  always current card value in PC CADDIE
- Status display of the machine in the Vending machine control window → Reasons for denied ball release/door opening immediately visible (card expired, insufficient credit, not authorised here), machine failure quickly recognisable
- Remote release

#### Advantages compared to a purely online system

- No high costs for cabling the vending machine locations.
- Radio connections with a greater range than standard WLAN configurations can be used.
- Continuous operation is possible without any problems even if the wireless connection is temporarily interrupted or the server fails, as these are fully-fledged offline systems.

### Technology

The "radio connection" can be realised technically via special radio modems (higher range) or also via WLAN.

A mobile router (e.g. LTE) can also be used.

In principle, RS485 or Ethernet is also possible. However, if a physical cable is available or can be laid, then a PC CADDIE online card system is often the better solution.

If you would like more detailed advice, please contact your PC CADDIE Support.