

## 10 CRITICAL FACTORS FOR KIOSK ACCESS CONTROL

RFID and mobile credential readers enable fast, convenient access to kiosks for commercial and industrial applications. When selecting a reader for integration into a kiosk or smart locker system, ensuring it will meet all your customer needs today and in the future is essential. Here are ten things to look for before choosing a reader.



1.

### ARE THE READERS COMPATIBLE WITH ALL CURRENT (AND FUTURE) CARD TRANSPONDER TECHNOLOGIES IN USE?

There are more than 60 major RFID transponder technologies in use globally. Therefore, kiosk systems must work within the access control ecosystem in which they are placed. In a workplace or campus environment, the kiosk should use the same transponder technology throughout the organization for user authentication and access control, so the user does not have to use a special card just for the kiosk. For other applications, such as ticketing, the kiosk must work with the technologies already used locally—for example, by the local transit authority.

For kiosk manufacturers, that often means stocking multiple readers to accommodate the technologies used by different buyers. This creates challenges for inventory management, implementation and service. A universal RFID reader can accommodate all customers with a single part number, streamlining inventory. It also accommodates future technology changes: instead of replacing installed readers, they can be updated.

2.

### DO THE READERS SUPPORT PKOC AND OTHER OPEN-STANDARD CREDENTIALS?

Open-standard credentials such as the PKOC (Public Key Open Credential) are gaining ground in the access control industry. Open-standard credentials allow system operators to implement access control without being locked into a specific hardware supplier. The PKOC standard was designed to support interoperability between systems. In the future, PKOC or a similar standard could allow users to create one digital identity that works for access across all their work-related and consumer applications.

As these open-standard systems gain traction, kiosk manufacturers must be prepared to meet customer demand. A reader that can accommodate open standards like PKOC gives manufacturers an advantage.

**3.**

### DO THE READERS WORK WITH MOBILE CREDENTIALS?

Mobile credentialing systems leveraging Bluetooth® Low Energy (BLE) or Near-field Communication (NFC) technologies are increasingly preferred by end-users and system operators. Smartphone-based credentialing systems are simple and convenient for users, eliminating the need to carry separate ID cards. Mobile credentials are also easier and more cost-effective for system implementers.

Mobile credentials are a natural fit in the kiosk market, especially for consumer applications such as ticketing or product vending. A clear competitive advantage is a reader supporting BLE and NFC credentials and traditional RFID cards.

**4.**

### ARE THE READERS SUITABLE FOR EXPORT?

For kiosk manufacturers selling into a global market, it is essential to have an RFID reader that supports the transponder technologies in use in the regions where they are selling and is certified for sale in these regions. Once again, a universal reader supporting multiple technologies is the key. A pre-certified reader for use in all target markets clears the way for smooth certification and approval. Depending on the jurisdiction, the reader may be required to meet ISO standards for data transmission and communication, such as ISO/IEC 14443, ISO/IEC 15693 and ISO/IEC 18092.

**5.**

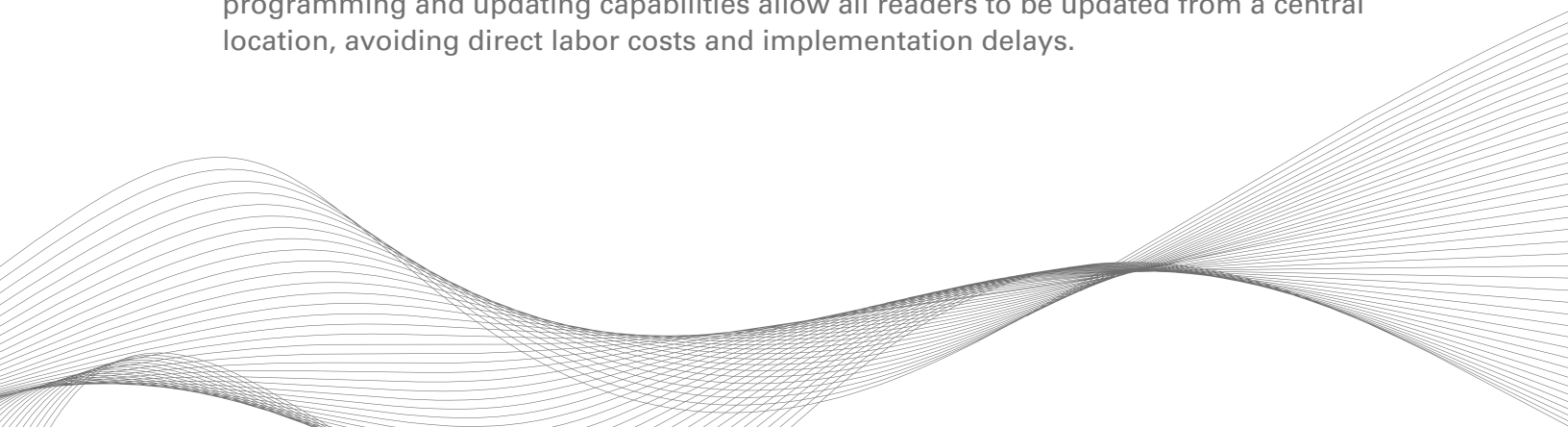
### DO THE READERS SUPPORT CONTACTLESS CONFIGURATION?

Readers must be configured before implementation for the transponder technologies they will support, security requirements and other custom functionality needed for the application. They also need to be reconfigured periodically after implementation. Readers that support contactless configuration (e.g., with an RFID config card) eliminate the need to remove the reader from the kiosk for configuration. That means kiosk inventory can be stocked with readers already installed; they can be quickly configured on their way out the door or reconfigured once in the field.

**6.**

### ARE THE READERS REMOTELY PROGRAMMABLE AND UPDATABLE?

Reconfiguration for installed readers may be necessary if the customer wants to implement a new transponder technology, change security settings or introduce new functionality. In addition, firmware updates are occasionally needed to address emerging security concerns or new requirements. Because kiosks are usually widely distributed geographically, manual updates for software or firmware can be a heavy lift for manufacturers or operators. Remote programming and updating capabilities allow all readers to be updated from a central location, avoiding direct labor costs and implementation delays.





7.

## ARE THE READERS SECURE AND ABLE TO ACCOMMODATE INCREASED SECURITY AS SITUATIONS DICTATE?

Security is essential for kiosk applications to prevent unauthorized access to kiosk services and protect user data. Security is a highly complex topic and needs to be considered in terms of the total security concept, including tamper-protection for installed devices. There are a few things to remember when selecting an RFID reader for secure applications.

- + The reader should support encryption of data transferred between the reader and the card or smartphone and data stored on the machine to reduce the risk of card/credential cloning or data interception. Ensure the reader supports device security using symmetrical encryption and stores encryption keys securely.
- + A Secure Access Module (SAM) card should be used to store and secure master keys and perform mutual key authentication.
- + For the transmission of highly sensitive data such as credit card information, a Weigand interface provides the highest level of security. Weigand is a wiring and communication standard that connects the reader to the rest of the access system.
- + In general, high-frequency data transmission, including NFC, provides a higher degree of security than low-frequency; LF is not recommended for applications requiring encryption.

8.

## DO THE READERS HAVE AN OPEN API TO ENABLE CUSTOMIZATION?

The kiosk industry is highly diverse. Customization of the reader is often desirable to support unique security requirements, integration with backend systems and advanced functionality. A robust open API allows kiosk manufacturers or buyers to program the reader to their specifications. Ensure the reader has adequate working memory and storage capacity to support your required functionality.

9.

## ARE THE READERS DESIGNED FOR SIMPLE, DIRECT BACKEND INTEGRATION?

Integration with kiosk hardware and backend software is another critical consideration. From a hardware perspective, the reader must be able to support the communication interface the kiosk requires (e.g., USB, Wiegand, OSDP). On the software side, the API should allow for easy integration with backend systems for user management and kiosk control. The software development kit should be straightforward for fast configuration with minimal programming requirements.

10.

## WHAT KIND OF SUPPORT IS PROVIDED BY THE READER MANUFACTURER?

Don't underestimate the importance of support from the reader manufacturer. Who will support you as an OEM during and after implementation? How will support be provided for buyers and end-users? A reputable manufacturer will stand by their product with a full warranty and aftersales support, whether you need technical support to troubleshoot an issue, training on the API, or advice for rolling out an upgrade.

**By asking the right questions, kiosk manufacturers and system integrators can ensure that the readers they select will fully meet their needs. The right combination of hardware, software and service makes all the difference when implementing an access solution for the kiosk market.**



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