

Migration Solutions



MULTI-TECHNOLOGY
CARDS AND READERS





Key trends influencing change in access control



With the increasing use of mobile devices in the workplace, the next logical step is to utilise their full capabilities to provide secure access to buildings, data and a variety of other applications.

HID Global's migration solutions allow organisations to deliver multi-application, mobile capability using standards-based technologies that seamlessly integrate with their existing access control systems.

Organisations can use a single card or mobile device for a wide variety of applications including:

- **Combined logical and physical access control** - enables an end-user to issue a single multi-application card that serves as both photo ID and an electronic key to access doors and business software applications.
- **Biometrics templates** - iris or hand geometry, fingerprints, or vein patterns can be securely stored on the credential offering increased security.
- **Building automation** - lights and climate-control systems are turned off and on as needed, only when specific employees are present.
- **Cashless payment** - can provide cash replacement at point-of-sale, full management of hospitality and loyalty accounts and manage employee entitlements.
- **Time and attendance** - enables quick throughput of employees during shift changes by eliminating time-consuming manual interactions.
- **Secure print authentication** - eliminates waste and manages printer use as documents are only printed when employees present their access control card to the printer.
- **Further uses** - can be issued to university students, employees in high-risk jobs or healthcare patients to provide immediate access to medical records.



Changes in business landscape

Business growth, mergers and acquisitions or expansion into new countries often require a consolidation of multiple technologies and systems. Organisations might require new credentials or readers for new buildings that are interoperable with their existing access technologies.

A multi-technology, single card solution can be used for multiple applications like vending, parking and secure print. Using more than one technology in a single credential simplifies the process of credential management and reader upgrades.

Higher security

As technology has moved forward, legacy technologies have been shown to be vulnerable to a host of security threats.

New security threats or compliance laws might force companies to think about improving their risk management. Mutual and custom authentication, encrypted communication and enhanced visual security features that are standards-based are essential to protect against security threats in access control environments.

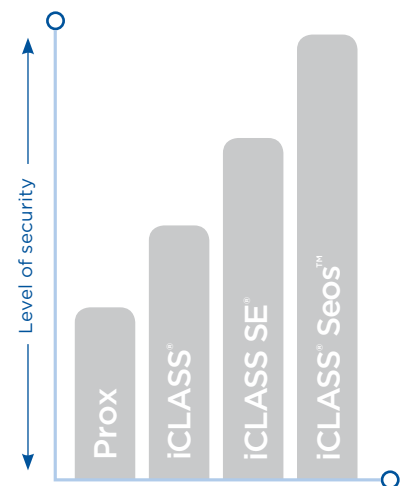
Compliance-driven risk management

As organisations seek to achieve compliance with internal policies and external regulations, they often turn to physical access control as a means of enforcement and reporting. Ensuring that employees, visitors and contractors follow the workflows that ensure compliance is a key factor, along with a robust reporting mechanism for auditing.

Lack of standards-based solutions

With the introduction of proprietary technologies, the access control market has become fragmented, making interoperability increasingly difficult.

A new generation of access control should therefore rely on existing standards to enable the support of a wide range of credential technologies as well as the portability of credentials to a variety of devices to maximise investments.



HID Global's seamless migration solutions maximise the value of credential investments by enabling multiple applications on a single card that can also be used as a photo ID badge. Invest in your future with seamless and cost saving migration solutions from HID Global.

**Explore access control
migration technology at
hidglobal.com**



A smart path to migration: iCLASS SE® Platform



iCLASS SE® Platform

HID Global's iCLASS SE® platform enables customers to future-proof their access control infrastructures by supporting both current and emerging technologies. The platform simplifies how identities are created, used and managed for physical access control and a wide range of applications using smart cards, microprocessor cards and mobile devices.

Based on HID Global's Secure Identity Object® (SIO) data model and Trusted Identity Platform® (TIP™), the iCLASS SE® platform provides a multi-layered and synergistic approach to security. As individual security layers are independent of one another, if any single security layer is compromised, the others still remain in place. This provides much greater protection to identity data.

The platform includes a comprehensive portfolio of credentials and readers that are ideal for migrating to higher security and mobile access control.

Why the iCLASS SE® Platform?

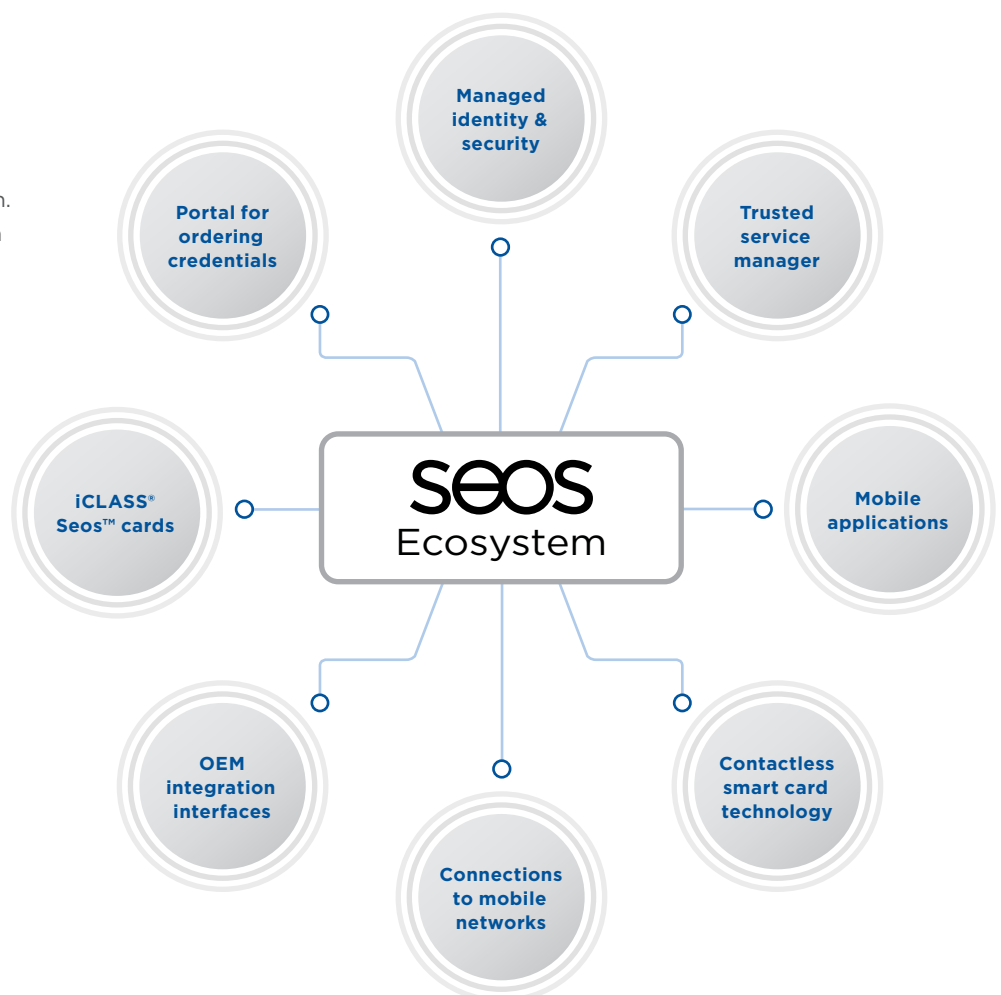
The evolutionary features and quality of the award-winning iCLASS SE® platform offers superior future proofing and investment protection. Some of the beneficial features of the iCLASS SE® platform include:

- **Standards based solution for maximum interoperability with third party applications**
- **Simultaneous support of most commonly used 125 kHz low frequency and 13.56 MHz high frequency technologies**
- **Future-proof solution, suitable for all next generation use cases**
- **Near Field Communication (NFC) support via iCLASS® Seos™**
- **A highly flexible family of readers with an array of multi-technology credentials ensures interoperability in any technology combination.**
- **Ideal for multi-application deployments**



Supports HID Mobile Access Solution

The iCLASS SE® platform also supports Seos™ digital credentials provisioned and managed by the HID Mobile Access Solution. The HID Mobile Access Solution provides an end to end solution for issuing, delivering and revoking Seos™ digital credentials on mobile phones. Seos™ digital credentials replace mechanical keys and access cards for opening doors to homes, hotels, offices, hospitals, universities, industries and commercial buildings.





How to move to the next generation of access control

iCLASS SE® Encoder

HID Global's iCLASS SE® Encoder provides an ideal solution for organisations to encode, manage credentials and configure readers. Enabling organisations to leverage the benefits of becoming part of the iCLASS SE® platform, the iCLASS SE® Encoder allows users to encode a wide range of credential technologies and enhance security by adding Secure Identity Objects (SIOs) to credentials (independent of card technology).



HID Global's new iCLASS SE® Readers

To seamlessly migrate from legacy access control environments, multiCLASS SE® are the ideal migration solution supporting the move from low frequency (LF) to high frequency (HF) technology as well as the incorporation of digital credentials which can be used in mobile devices.

multiCLASS SE® readers support the following technologies simultaneously:



■ OSDP

The iCLASS SE® platform supports Open Supervised Device Protocol (OSDP) for secure, bidirectional communication.

■ multiCLASS SE®

multiCLASS SE® readers are the ideal solution when migrating from LF to HF technologies with their support for the most common credential technologies.

■ NFC

iCLASS SE® readers also support Near Field Communication (NFC) card emulation for migration to access control on mobile devices while delivering enhanced functionality for future applications.

■ Eco-friendly

iCLASS SE® readers include intelligent power management reducing power consumption up to 75% and are built using recycled content, contributing toward building LEED credits.

Multi-technology Migration Cards

Your current solution	Migration Card Solution	iCLASS SE® Solution
Low Frequency		
HID Prox®	iCLASS® / Prox Card	iCLASS SE® Card
	iCLASS® Seos™ / Prox Card	iCLASS® Seos™ Card
	SIO® Solution for MIFARE™ Classic / Prox Card	SIO® Solution for MIFARE™ Classic
	SIO® Solution for MIFARE DESFire™ EV1 / Prox Card	SIO® Solution for MIFARE DESFire™ EV1
	iCLASS® / MIFARE Classic™ / Prox Card	iCLASS SE® Card
	iCLASS® / LEGIC prime / Prox Card	iCLASS SE® Card
HITAG 1/HITAG 2	iCLASS® / HITAG1 Card	iCLASS SE® Card
	iCLASS® / HITAG2 Card	iCLASS SE® Card
High Frequency		
iCLASS®	iCLASS® Card	iCLASS SE® Card
MIFARE Classic™	iCLASS® / MIFARE Classic™ Card	iCLASS SE® Card
MIFARE DESFire™ EV1	iCLASS® / MIFARE DESFire™ EV1 Card	iCLASS SE® Card
	MIFARE DESFire™ EV1 / iCLASS® / Prox Card	iCLASS SE® Card
LEGIC®	iCLASS® / LEGIC prime / Prox Card	iCLASS SE® Card

Other technology combinations are available on request.
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LEGIC® is a registered trademark of LEGIC Identysystems Ltd.

Multi-technology credential for easy migration

On the credential side, organisations can choose between more secure, standards-based SIO enabled credentials in nearly every technology combination. Available as iCLASS SE® (SIO enabled), SIO enabled MiFARE™ or SIO enabled MiFARE DESFire™ EV1.

SIO enabled secure credentials

SIO enabled credentials increase security and performance with mutual authentication and encrypted data transfer featuring multiple securely separated application areas.

Each is protected by 64-bit diversified read/write keys that allow complex applications and provide for future expansion.

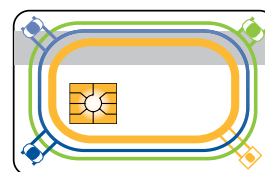
Virtual credentials

As a virtual credential, HID Global's iCLASS® Seos™ smart card is an ideal solution for organisations seeking to use mobile devices for access control. iCLASS® Seos™ can be used for physical and logical access control, cashless vending, transit and a variety of other

applications. The state-of-the-art iCLASS® Seos™ credential delivers superior data integrity and enhanced privacy protection by leveraging the latest standardised cryptographic algorithms for securing contactless communications.

Invest with confidence

With Genuine HID®, customers benefit from the broadest product line of trusted, fully interoperable secure identity solutions in the market. Genuine HID solutions are designed and built in ISO 9001 certified facilities; include worldwide agency certifications; and are backed by global product warranties. Supported by the strongest, industry-leading delivery and response platform available, Genuine HID solutions reinforce the long-standing trust that when customers purchase from HID Global, they are investing with absolute confidence.



Multi-technology Card

Genuine HID technology cards enable users to seamlessly manage multiple applications and migration projects on a single card containing diverse technology combinations.



Provides a highly secure, standards-based system for the generation, delivery and revocation of digital keys to open doors and authenticate identity.



SIO® Enabled (SE)

The Secure Identity Object™ (SIO) is a data model for storing and transporting identity information in a single object. SIOs consist of a number of independent but associated data objects.



Contact Chip

Genuine HID® smart cards include a wide variety of contactless technologies, paired with an industry standard contact chip. HID Global can also embed a wide range of commercially available contact chips.



High Frequency

13.56 MHz read/write iCLASS®, iCLASS SE® MIFARE®, MIFARE DESFire® and LEGIC prime contactless card technologies are available in various combinations with low frequency, magnetic stripe and contact smart chip modules.



Low Frequency

Genuine HID cards are designed to work with the large installed base of HID Prox® and Indala proximity readers.

Magstripe

A magnetic stripe can be added to maintain functionality with legacy access control, time and attendance and vending systems.

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