Powering the trusted identities of
the world's people, places & things

HID

Spectra Baltic & HID Global
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Kamil Targalski, Area Sales Manager, Eastern Europe

ASSA ABLOY

HID Global powers the trusted identities of the world's people, places and things

HID Powering Trusted Identities

ASSA ABLOY Group

Annual revenue - $10 billions

48,300 employees

Global leader in access control

HID Global Business Areas

Physical Access Control

Secure Issuance

Extended Access Technologies

Identity Access Management

Identification Technologies

Government Identification

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Trends of Secure Identification

ASSA ABLOY

What are today's trusted identities?

Enterprise	Residential	Government	Hospitality

Today's trusted identities

What are tomorrow's trusted identities?

| Enterprise | Residential | Government | Hospitality |

Tomorrow's trusted identities

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Trusted Identities

Evolution of RFID credentials

circa 1970	circa 1990	circa 2000	circa 2010	TODAY

Security & Functionality

Unencrypted Magnetic Stripe

Unencrypted Memory Chip

Encrypted Smart Card

Encrypted Smart Card with Additional Safeguards

Magstripe
Early form of data storage on a magnetic stripe

Low Frequency Card (125kHz)
Data storage inside a card on a memory chip

High Frequency Smart Card (13.56MHz)
Expanded memory for data storage inside a card on a memory chip

Smart Card with SIO
Secure Identity Object® SIO® added as an additional security level

Next Generation Credential Technology Powered by Seos®
Microprocessor
SIO
Software based
Chip Agnostic

Seos Security Principles

Seos is more secure than other technologies:

- With Seos, **the identity objects themselves can be encrypted**, and all data passing between credential and reader is further encrypted with session keys.

- Seos is based on the highest cryptography standards recommended **by NIST, ISO/IEC and ANSI, such as AES.**

- Seos does not use proprietary security schemes. In fact, Seos uses a lot of the **same standards** that are used for **highly sensitive documents** such as electronic passports.

Seos Credential Technology Enabled Flexibility

OSDP – Open Supervised Device Protocol
Global Open Standard recommended for access control
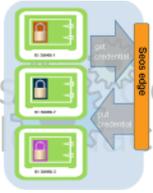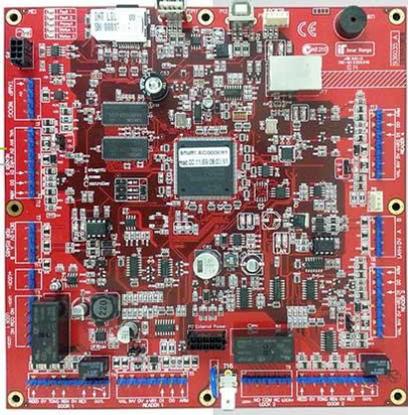
OSDP Basics

- *OSDP is an acronym for; Open Supervised Device Protocol*

- *SCP is an acronym for; Secure Channel Protocol*

- RFID readers popularized the **Wiegand** (D0/D1) interface, while magnetic stripe readers used an interface with **Clock and Data** signals. These two interface wiring schemes became SIA standards.

- OSDP is known and trusted as a protocol for readers and other peripheral devices. OSDP is currently a **Security Industry Association (SIA) standard**. This interoperable standard helps to expand the capabilities and control of readers.

- **OSDP was approved as an international standard by the International Electrotechnical Commission in May 2020 and will be published as IEC 60839-11-5 in July 2020. SIA OSDP is in constant refinement to retain its industry-leading position.**

End to End security
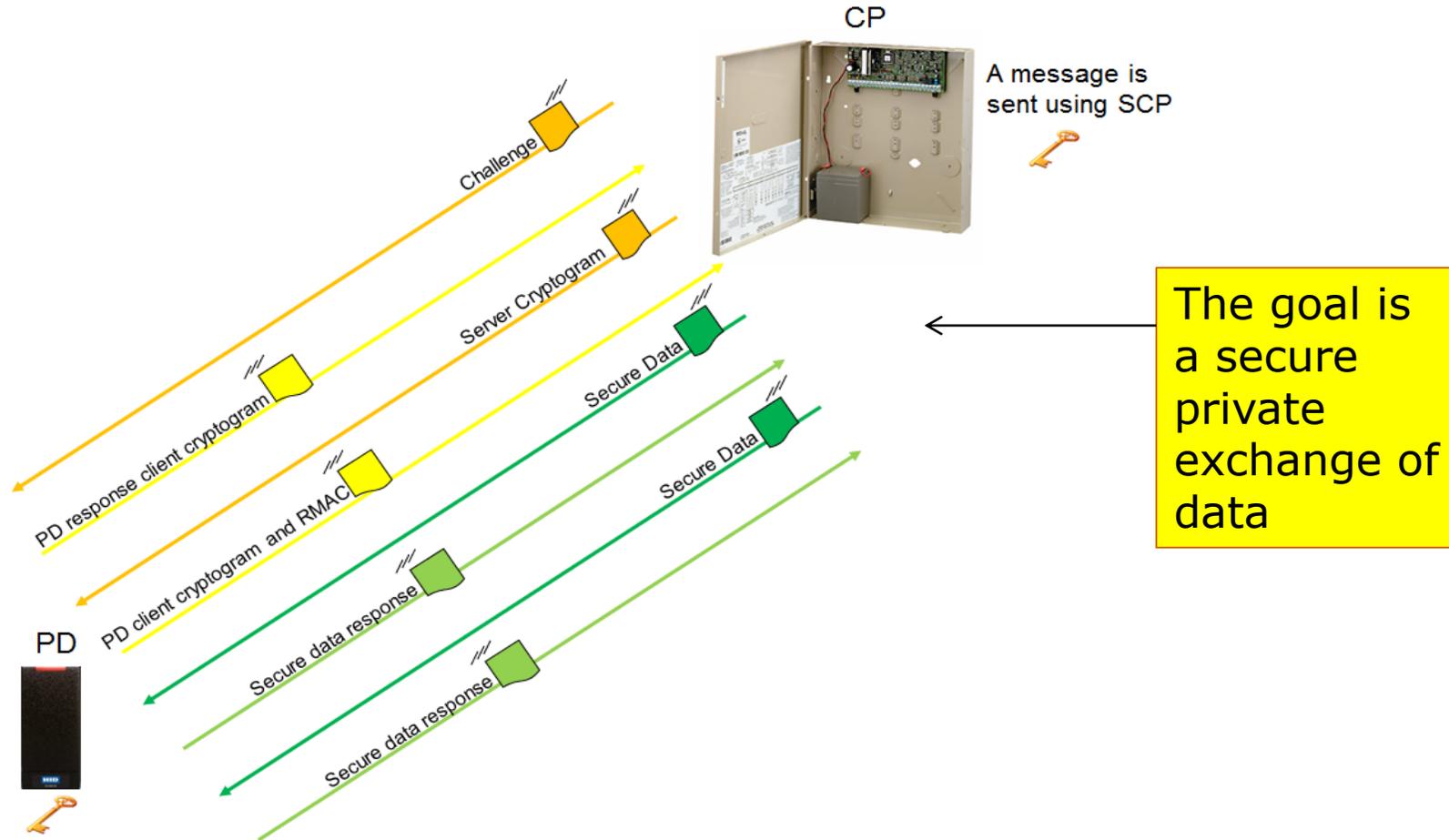
The goal is a secure private exchange of data

HID Mobile Access

Powering the trusted identities of
the world's people, places & things

HID Mobile Access

NFC Short-Range Tap

Twist & Go

- **NFC short-range Tap**
- **Bluetooth short-range Tap**
- **Bluetooth long-range Twist & Go**
- **Smartwatch widget opening**

SECURE INFRASTRUCTURE

EU GDPR COMPLIANT

ISO 27001 CERTIFIED by schellman

- **Easy and predictable annual subscription billing**
- **Up to 5 mobile devices & 10 mobile IDs per user**
- **Unlimited number of formats / keys**

HID Powering **Trusted Identities**

Components of HID Mobile Access

Wireless Mobile ID Management

Physical Access Control
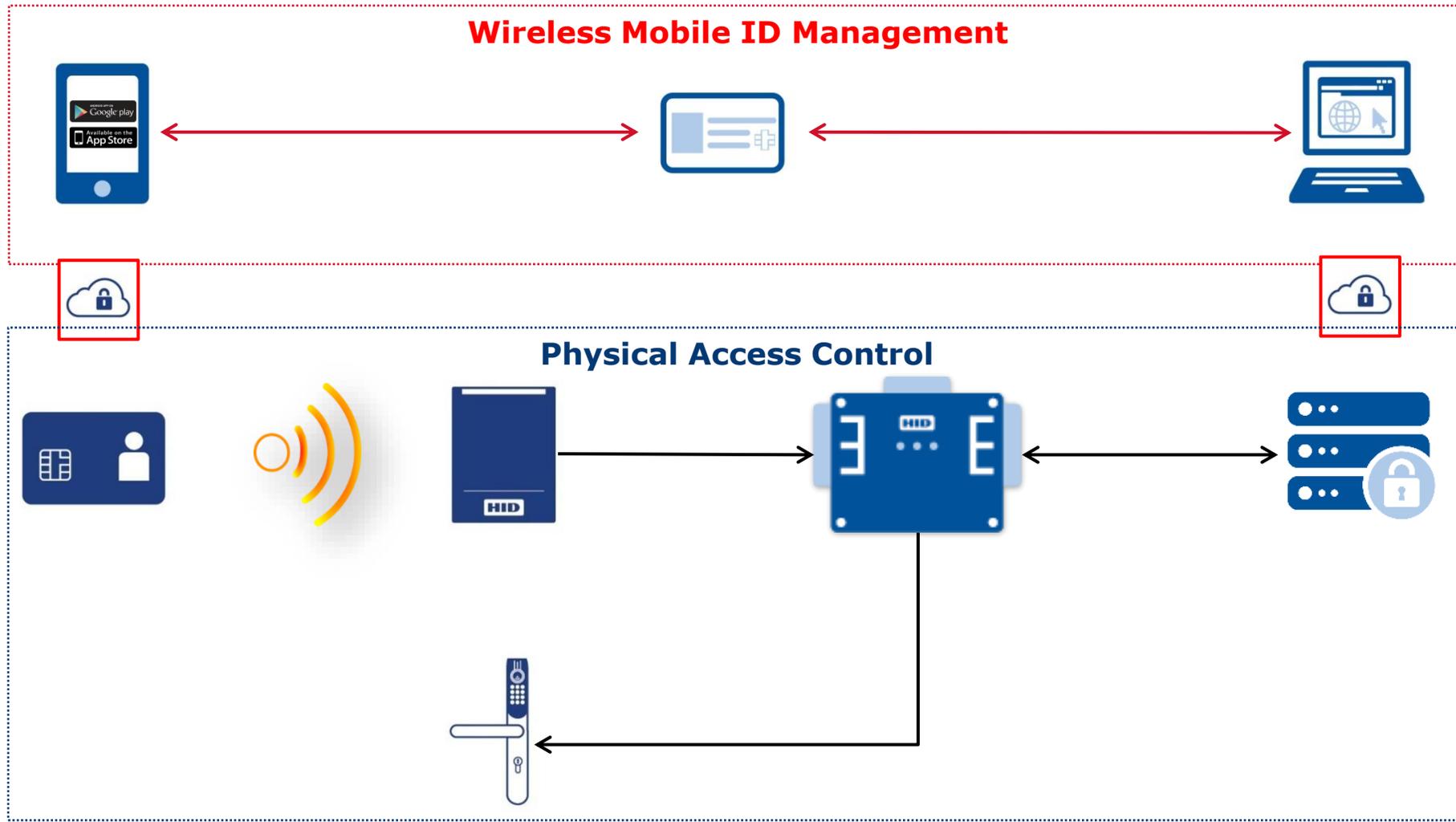
HID Origo – Secure by Design

- A holistic approach to information security by considering all threat vectors and aspects including, but not limited to, technology, processes and people.

- Best practice guidelines, frameworks and standards, including, but not limited to:
  - **ISO27001** Information Security Management System
  - **ISO9001** Quality Management System
  - **ITIL** (Information Technology Infrastructure Library)
  - **CIS** (Center for Internet Security) benchmarks
  - **OWASP** (Open Web Application Security Project) guidance for third-party vulnerability assessments as well as penetration testing.
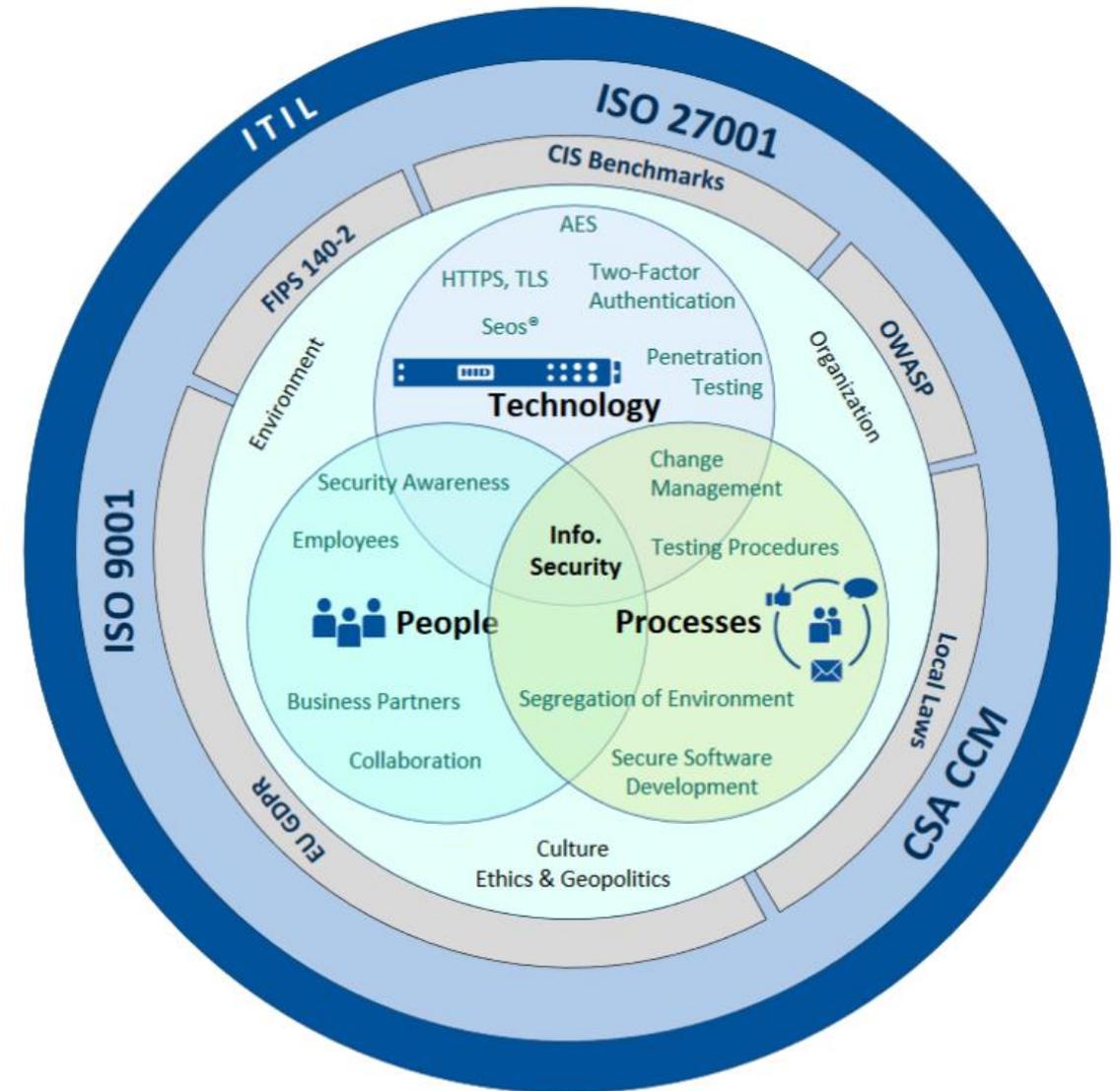
HID Mobile Access - Holistic approach to Information Security

HID Mobile Access®
Four easy steps – Ready To Use

Your Access
Control System
(PACS ID inserted
manually)

| 1 End User Administrator manages users and Mobile IDs via the **HID Mobile Access Portal** | 2 Mobile ID is transferred into device over the air | 3 "Tap" or "Twist & Go" via HID Mobile App | 4 iCLASS SE Reader sends credential data to panel for validation |

HID
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Trusted Identities

HID Mobile Access®
Four easy steps – Custom Integration

integriti
INTEGRATED SOLUTIONS

HIDMA Portal Onboarding, Admin, ACS set-up, Inventory (co-existance)

HID Mobile Access Portal API

Your Access Control System. Frictionless PACS ID assignment (3rd product capability)

London Office
iCLASS Seos Card

1 End User Security Administrator manages users, access rights and Mobile IDs via **their own Access Control System**	2 Mobile ID is transferred into device over the air	3 "Tap" or "Twist & Go" via HID Mobile App (or 3rd party app via SDK)	4 iCLASS SE Reader sends credential data to panel for validation

HID Mobile Access® at Integriti

HID Powering
Trusted Identities

Student ID in Apple Wallet

Apple & HID Press Releases:

*"Apple is adding support for...**HID**, industry leaders for campus credentials and mobile access, to enable students to add their student IDs to Apple Wallet"*

"To support student IDs in Apple Wallet...HID provides Seos-enabled credentials, HID iCLASS SE® and HID OMNIKEY® readers, embedded HID iCLASS SE reader modules, and ASSA ABLOY® locks"
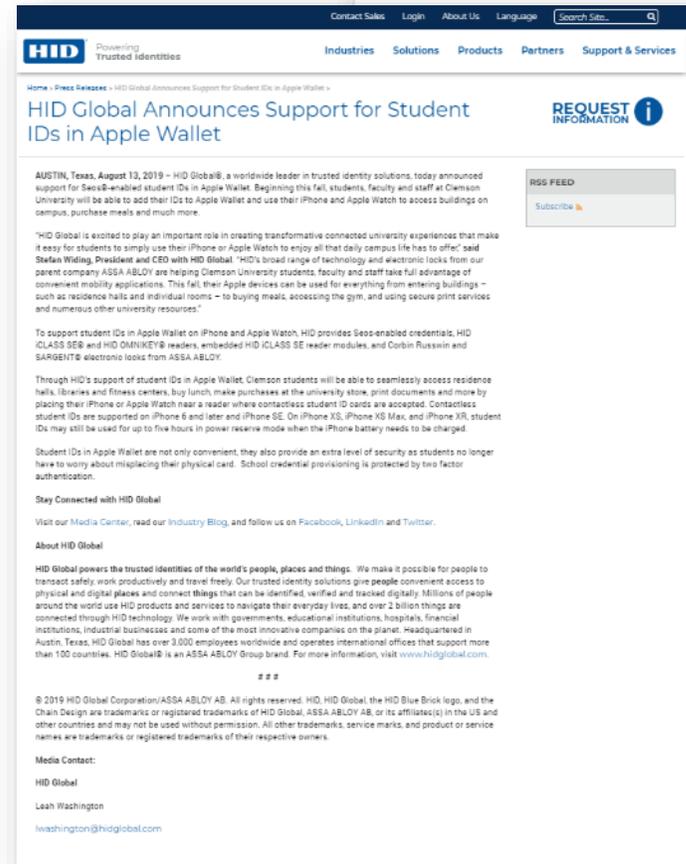
What is Student ID in Apple Wallet?

A solution that allows students, faculty, and staff at universities (who are part of the Apple program) to add their student ID cards to Apple Wallet on their iPhone and Apple Watch.

- Uses Near Field Communication (NFC) technology

- Leverages same secure element chip as payment cards and transit cards supported in Apple Pay
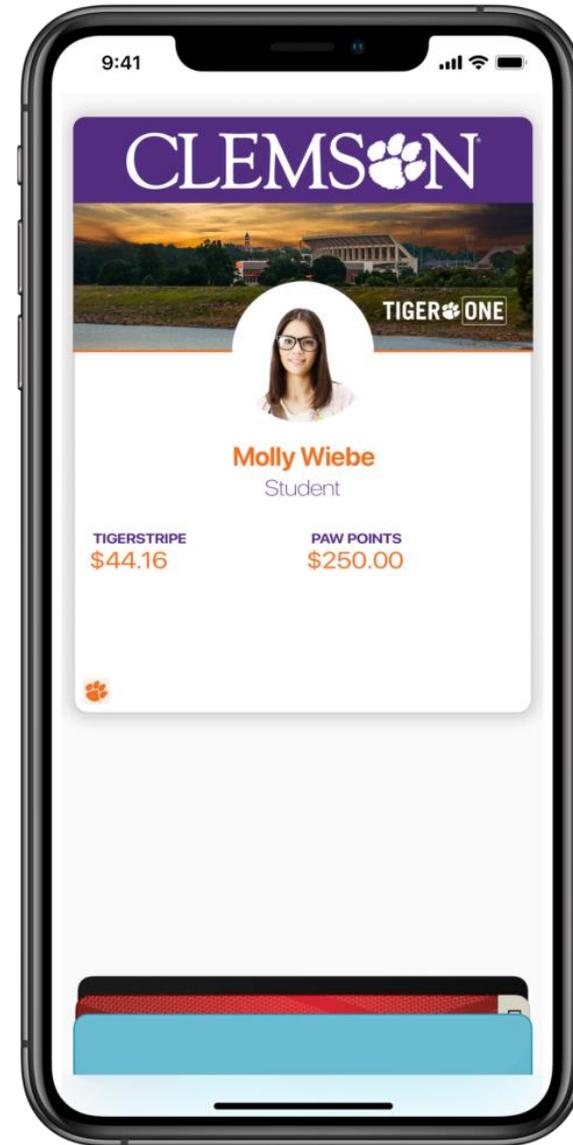
Does Apple Watch Require the iPhone to be Nearby to Use the Mobile Credential?

No.

The credential on Apple Watch will work autonomously

HID PACS
Product Portfolio

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ASSA ABLOY

HID PACS –
Readers & Credentials

Multi-frequency

125 kHz / 13,56 MHz (NFC)
2,4GHz (Bluetooth Low Energy)

Security

Hardware Secure Element
EAL5+

Flexibility

NXP : Mifare Classic, Mifare DESFire EV1/EV2
HID : Prox, iCLASS, iCLASS SE, Seos
EM4102/4200
AWID

MIFARE SE® Card

iCLASS SE® Card

DESFire EV1® Card

HID Indala® Card

AWID Card

EM4 102 Card

iCLASS® Card

iCLASS® Seos™ Card

HID Prox Card

seos
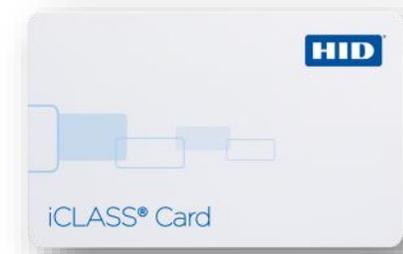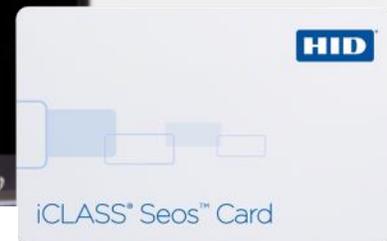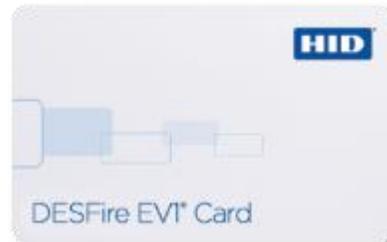
HID Signo readers

Signo 20   Signo 20K   Signo 40   Signo 40K
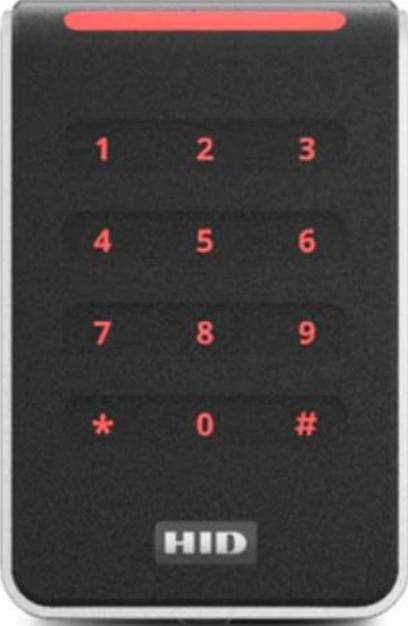
HID iCLASS SE readers

RB25F Biometric

R10   R15   R40   RK40   R95A Décor

HID Signo - Configuration

No configuration cards **X** HID Reader Manager ✓

HID Powering **Trusted Identities**

Thank you

hidglobal.com

An ASSA ABLOY Group brand

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