IDENTITY & ACCESS TRACK

Trends in Physical Access Control

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IDENTITY & PAYMENTS SUMMIT

SECURE TECHNOLOGY ALLIANCE

THE INEVITABLES

by Lee Odess, CEO, Access Control Executive Brief

ACCESS CONTROL EXECUTIVE BRIEF

Let's Start with:

THE NEXT 30 YEARS OF OUR INDUSTRY HAS NOTHING TO DO WITH THE PAST 30 YEARS.

A GAME AND A STORY.

LETS PLAY

NAME THAT DEVICE

ACCESS
CONTROL
EXECUTIVE
BRIEF

WHAT IF I TOLD YOU THERE WAS A DEVICE THAT HAD…

- **MFA**: keypad, card, and understood localization
- **Fintech device**: tightly tied to pay
- **Delivered value add beyond its value prop**: workflow & automation
- **Focused on PII**: central identity database used for verification
- **Can ALSO open a door**: access control

What would you call it?

ACCESS
CONTROL
EXECUTIVE
BRIEF

THE FUTURE OF ACCESS CONTROL?

TRW

1970s technology.

Check authorization terminal had an option for “administration” use, that is, it had an option to open a door.

Kmart, Sears, JC Pennies, Montgomery Wards, Neiman Marcus, Bloomingdales, etc.

TRW Data had THE largest banking data in the world (guess what the name of the company is today?)

THE FUTURE OF ACCESS CONTROL?

Toye Corporation

Started in 1941 with governmet IDs

1960s time and attendance

1974 differentiated optics cards

"Site code exclusivity" applied and used by Cincinnati Parking

WELCOME BACK TO THE 1970S!

ACCESS
CONTROL
EXECUTIVE
BRIEF

WE HAVE ALWAYS BEEN TIED TO PAY.
WE JUST LOST IT IN THE 1980S AND
HAVE BEEN ITERATING FOR 30 YEARS.

JOURNEYING FROM THE PERSON TO THE DOOR AND NOW BACK TO THE PERSON NECESSITATES AN ALTOGETHER DIFFERENT WAY OF THINKING, BUILDING AND COMMUNICATING.

FYI...Computer Vision is going to be even bigger.

I CHALLENGE OUR INDUSTRY TO GO BEYOND "THE CARD IN PHONE."

TELL THE ENABLEMENT STORIES.

(and while you are at it, go beyond cloud and ai)

My Things That Matter

"THE INEVITABLE"

ACCESS
CONTROL
EXECUTIVE
BRIEF

2023 THINGS THAT MATTER

Emphasis on "Things"

A fit for purpose

Training and certification

Consolidation

Historical moats reduced

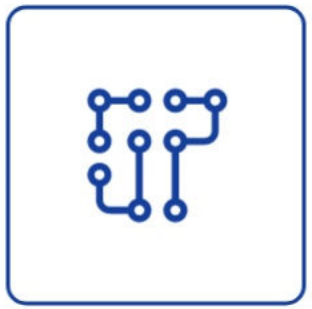
Impact of high interest, low office occupancy rates, rise of the neighborhood

A redefined channel

Managers out, leaders In

2023 THINGS THAT MATTER

Margin stacking conundrum



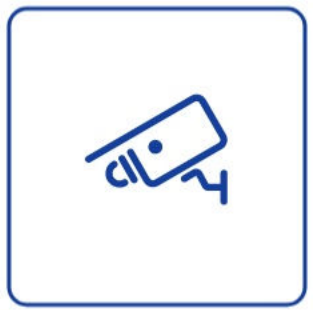
Online + offline

Mobile + cloud computing with AI

Shift from door to person and UX

Single pane of glass

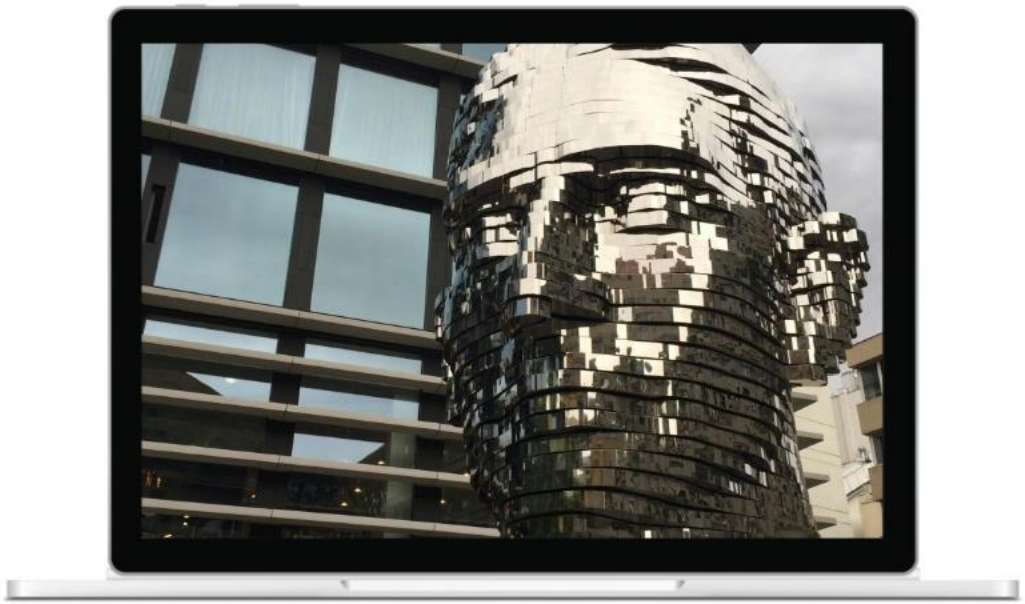
Importance of community



Video access control

More integrated, not open

MARKET ASSUMPTIONS

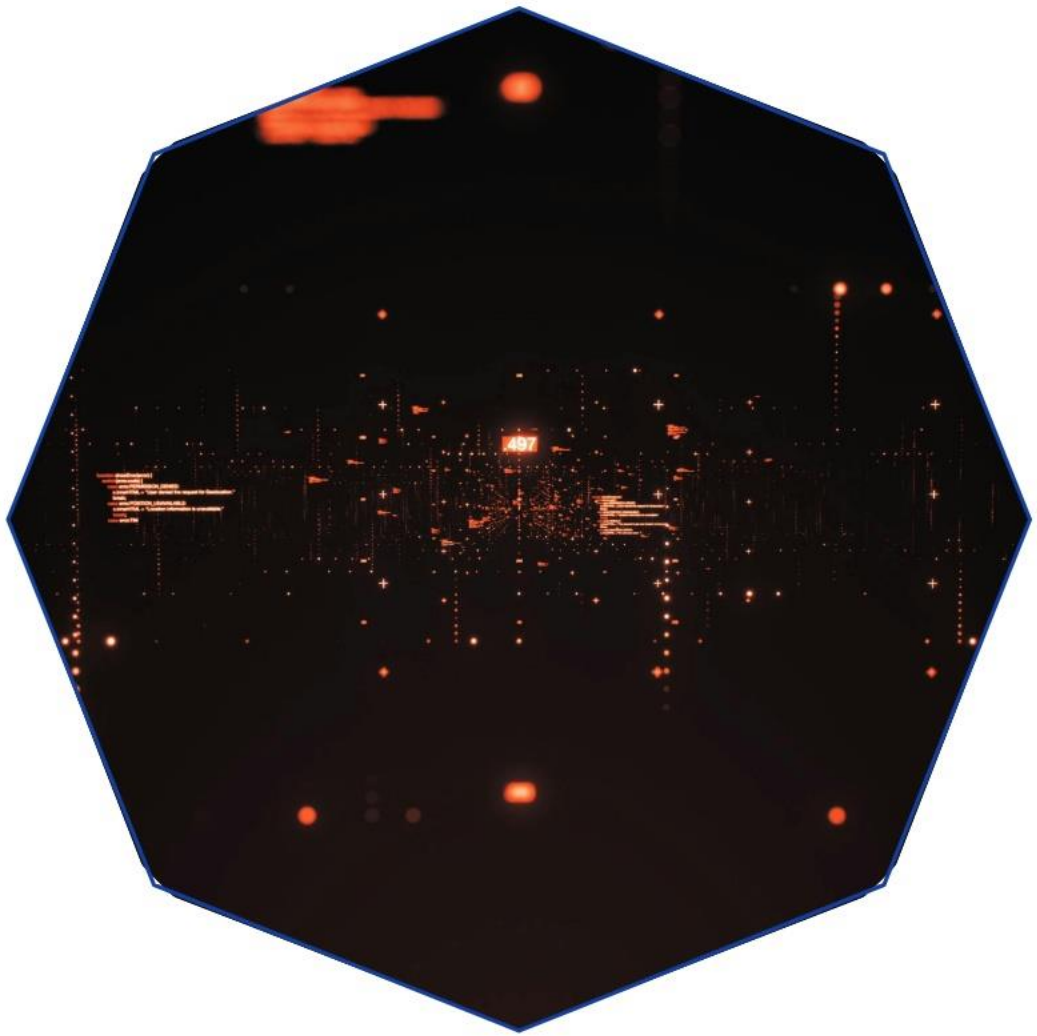


Digital transformation =
Enterprise Software > IT Convergence

MARKET ASSUMPTIONS

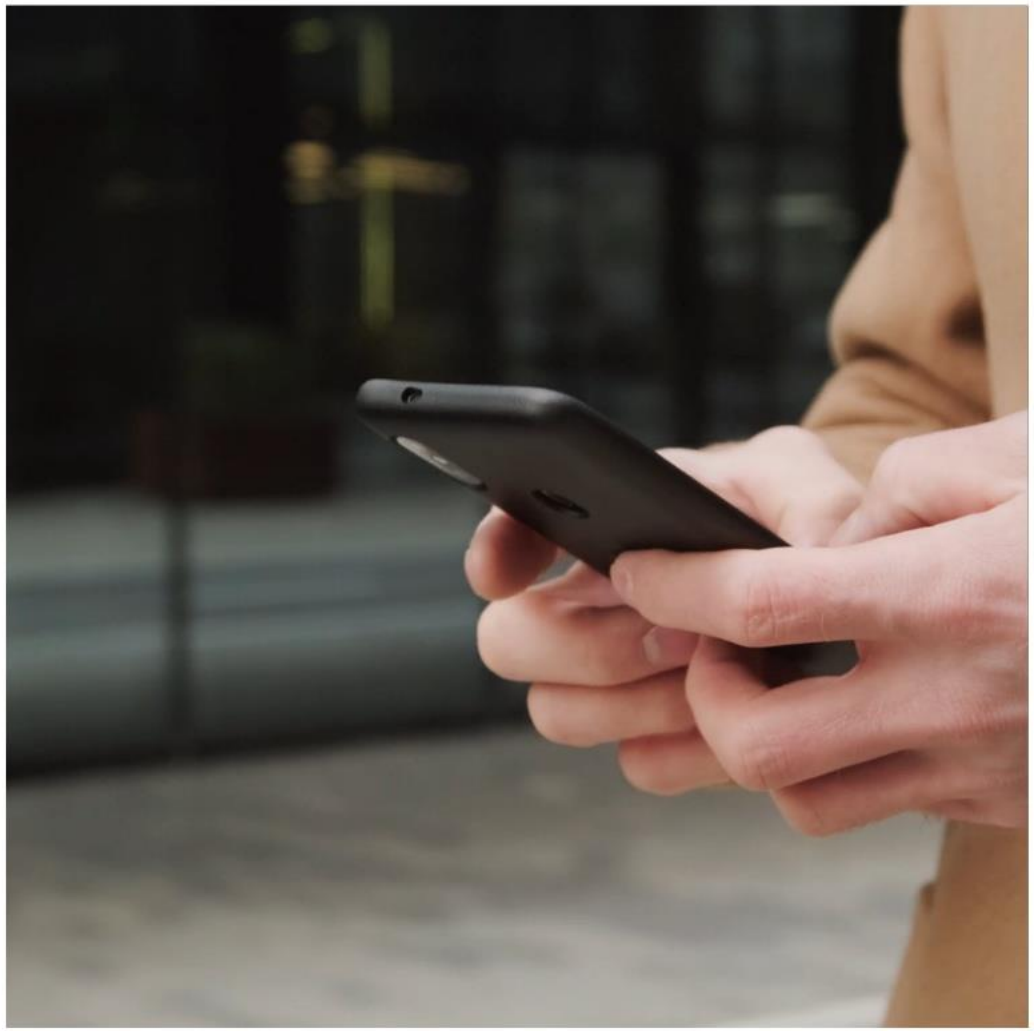
Continued influx of new money: PE and strategic capital

MARKET ASSUMPTIONS



Data as **refined oil.**

MARKET ASSUMPTIONS

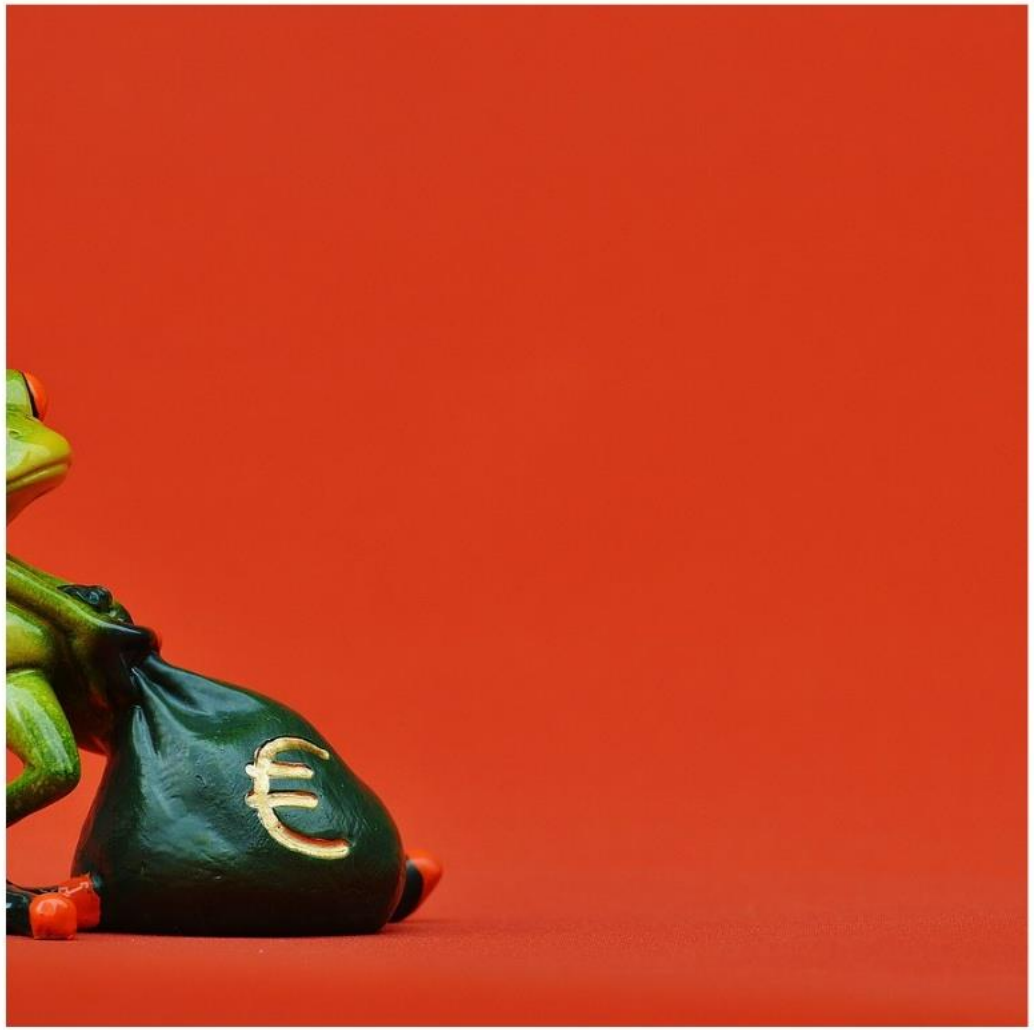


Cloud and mobile **first** + adoption, and then comes AI

MARKET ASSUMPTIONS

Safety as a bedrock +
operational efficiency and revenue generation

MARKET ASSUMPTIONS



$70-100B opportunity

MARKET ASSUMPTIONS

Built environment turbulence **soft spot** (legacy) **and opportunity** (rethinking value)

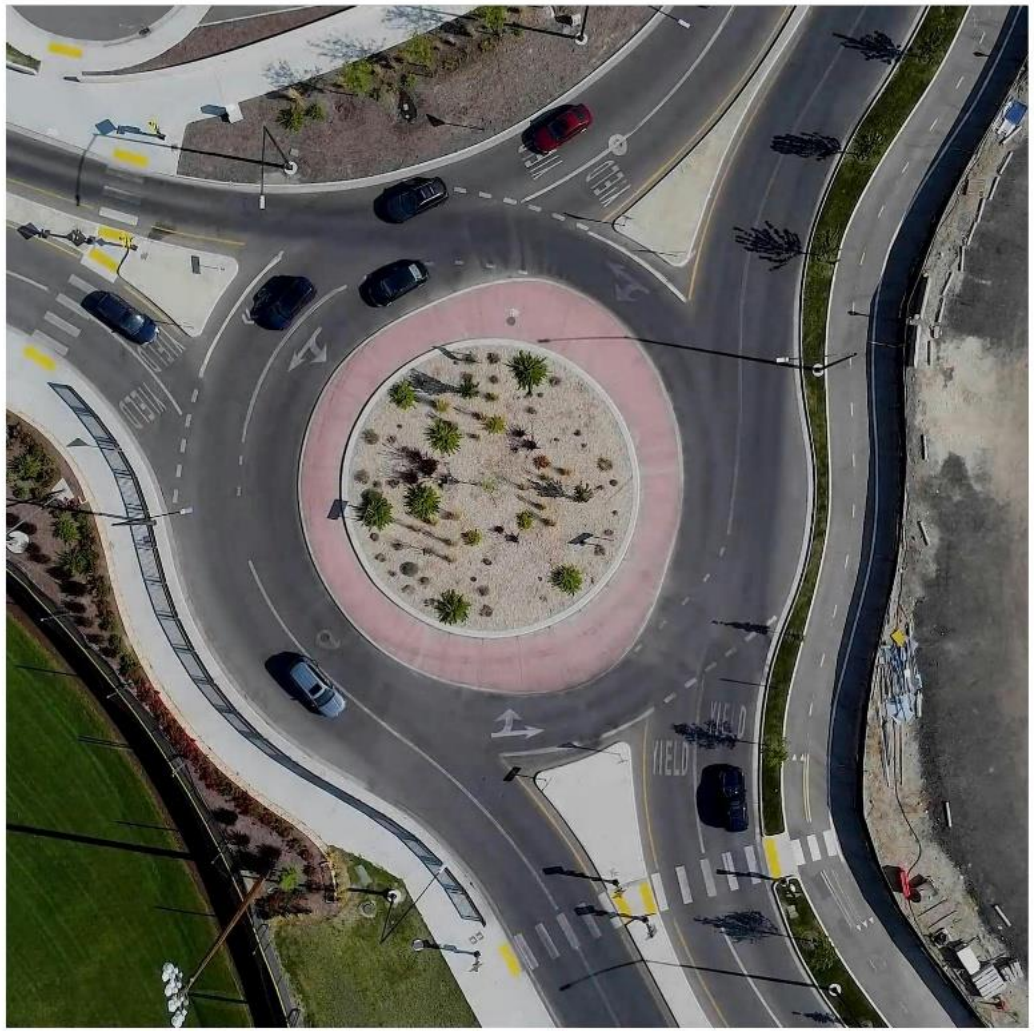
MARKET ASSUMPTIONS

UX: User experience as **a core discipline**

MARKET ASSUMPTIONS

Proven feelings: Trust and comfort

IMPACT



Value **arbitrage.**

IMPACT

Parts of the industry becomes
a feature

IMPACT

New **truths**.

IMPACT

Winners **and** losers.

IMPACT

Old **and** New (for awhile)

IMPACT

Compete + Cooperate =

Co-opetition

And with all that...

THERE IS NO BETTER TIME TO BE IN THE ACCESS CONTROL INDUSTRY!

wavelynx

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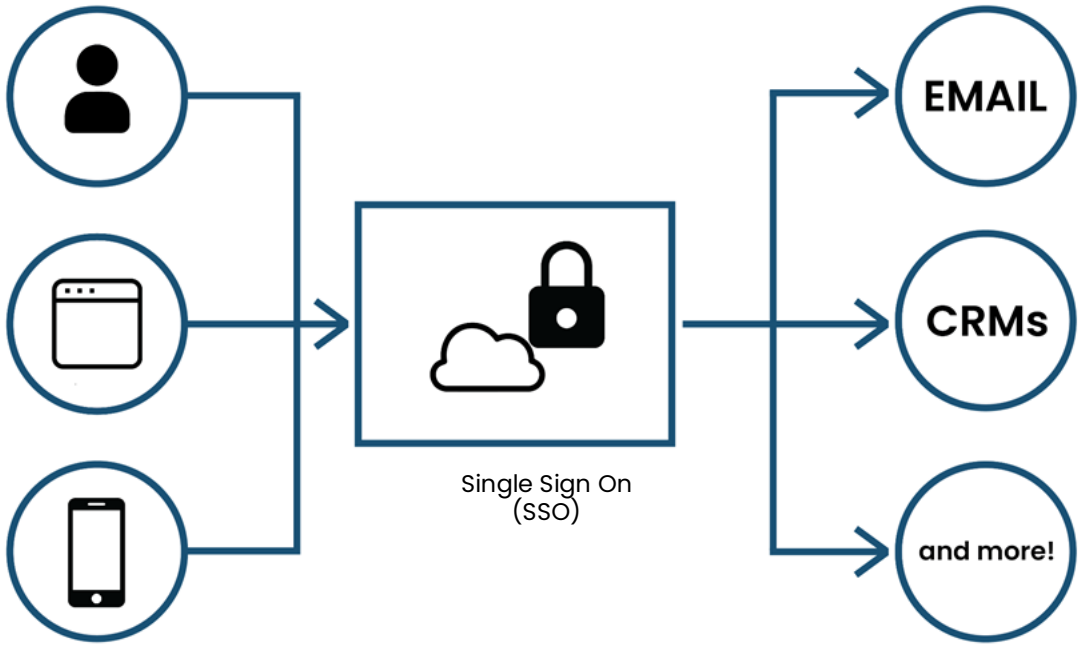
Trends in Physical Access Control

All Access to Systems, IP, Documentation



All Access to Facilities

Converged Physical Credential

125 KHz Prox®

DESFire® Ev3
LEAF Standards
NFC

PIV
FIDO passkey

HYPR

IDEMIA

wavelynx

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Wallet Credentials

- More secure than all other credentials
- Superior provisioning and administration
- Unparalleled user experience for all users
- Wallet marries the SSO to Physical Security

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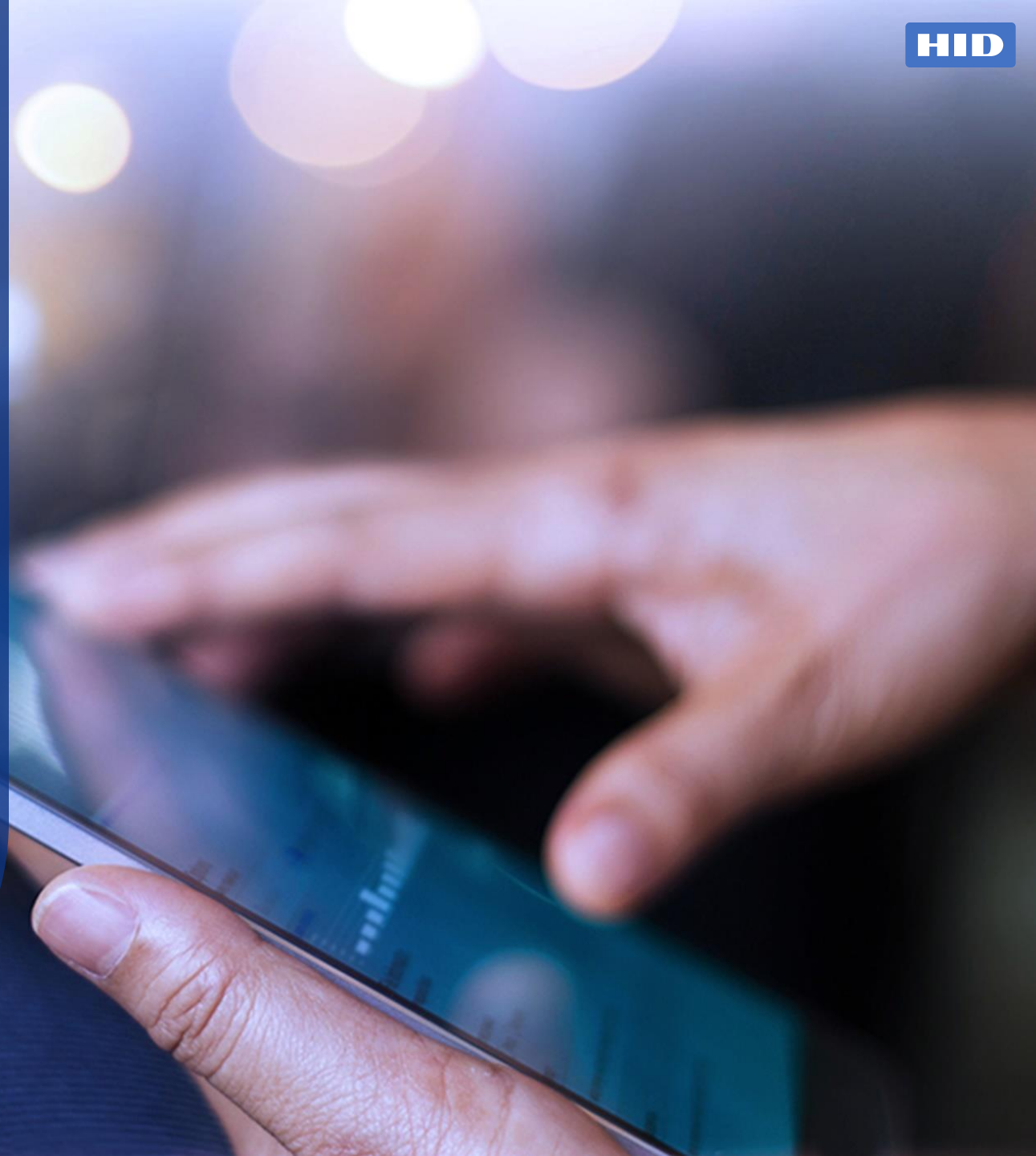
Corporate SSO Identity

Trends in physical credentials

Troy Johnston

Director Strategic Alliances Americas

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



The Evolution of Credential Technology

Security & Functionality

circa 1970

Unencrypted Magnetic Stripe

Magstripe
Early form of data storage on a magnetic stripe

circa 1990

Unencrypted Memory Chip

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

circa 2000

Encrypted Smart Cards

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

circa 2010

Encrypted Smart Cards with Additional Safeguards

High Frequency Smart Card (13.56MHz)
Superior encryption approaches + layered security

TODAY

Paradigm Shift

Smart Cards and Mobile
Security enhancements, focus on multi-application support and the addition of mobile device support

The Physical Card

- Physical, tangible, predictable
- They can be personalized, used as visual / passive confirmation of approved access
- Card administration is familiar and is baked into the business

Purpose built and great at fulfilling its function.

Credentials by the numbers North America

Prox

101M Sold in 2022

85M still predicted to be sold in 2027

-3.8% CAGR 2027

– OMDIA

Credentials by the numbers North America

13.65Mhz

105M Sold in 2022

163M still predicted to be sold in 2027

6.8% CAGR 22-27

– OMDIA

Alignment with corporate initiatives

- Attract and Retain
- Digital Transformation
- Lean Operations
- Sustainability and ESG
- Asset Valuation

Credentials by the numbers North America

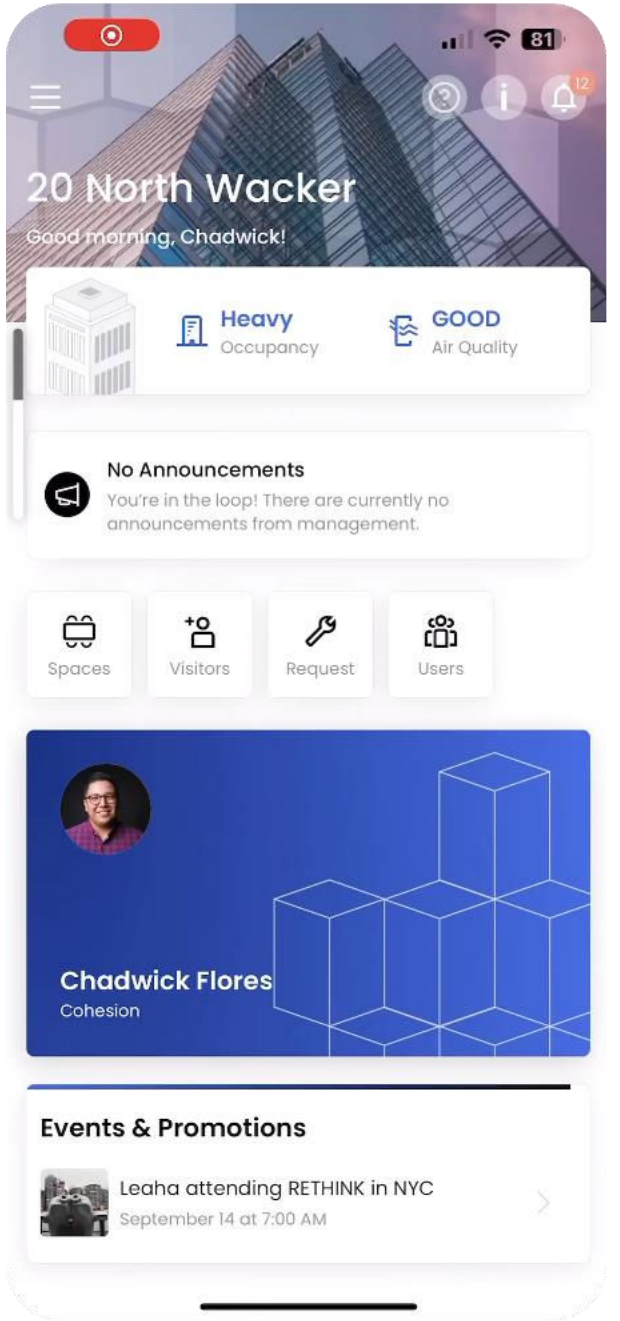
Mobile

13.9M Sold in 2022

69M still predicted to be sold in 2027

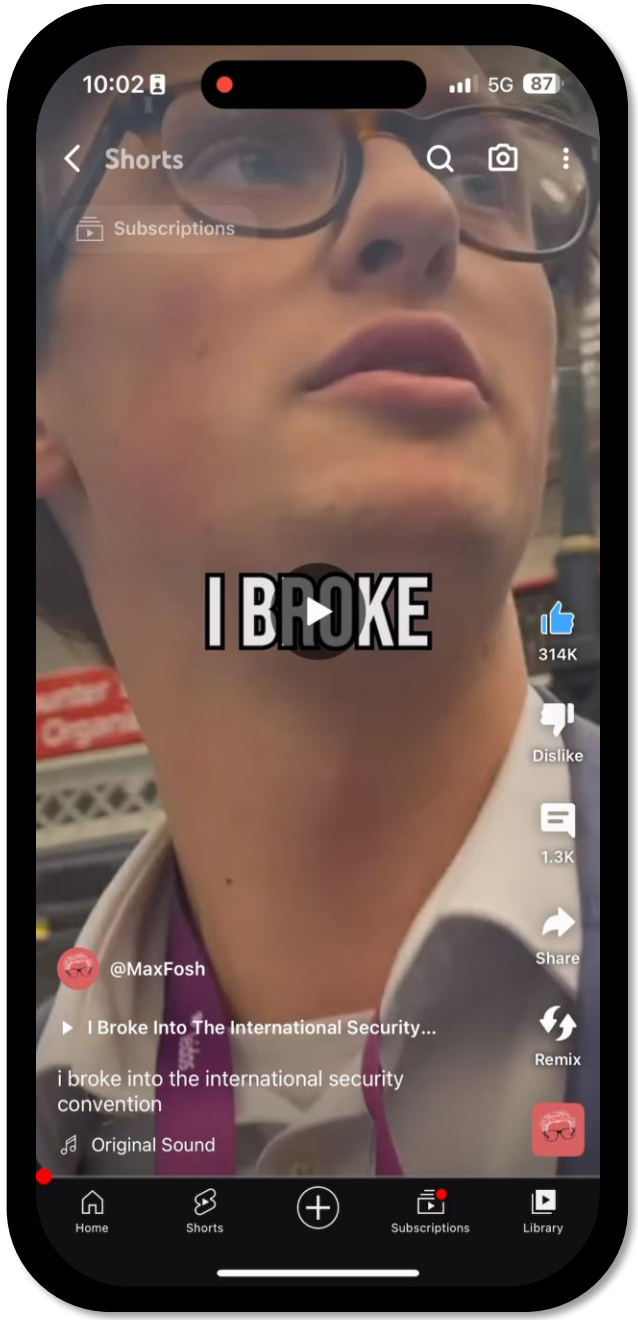
37.8% CAGR 22-27

– **OMDIA**

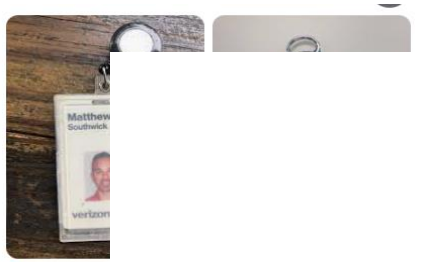


Transitional

- Physical credentials still have a place
- The need to be outwardly identified
- The growth of open and interoperability



Company ID Badge



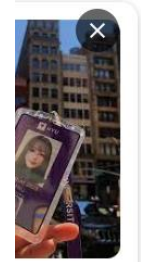
{ back }

full logo

employment classification

employee number
* mock information

chip



School of C...

Baleendah
vices, SAV...

Parting thought for the day

Manage the identity not the modality

THANK YOU!

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Troy Johnston – Director of Strategic Alliances

Troy Johnston

Need help with mobile access? Wallet solutions, digital transformation of your w...

Trends in Physical Access Control

Ivan Golian

Technical Business Development Manager

Gallagher

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The Importance of Being Cyber Aware

$9.5 Trillion

$5.09 M

449,855
36,004

13 Million
IoT

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How Gallagher Protects What Matters Most

Used Across the Five Eyes for the most mission critical systems

FIPS 140 Level 3 Validated Cryptography processor

Continuous Pen Testing, “WhiteHat” security researchers

Transparency. Gallagher is a CVE Numbering Authority (CAN)

Security Health Check. Reduce risk, gain insight.

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Trends in Physical Access

Federal and Commercial Considerations for Trending Access Control Solutions

Topics

- A Little Legacy History and its Relevance
- Access Control Trends
- Standardized, Interoperable, Non-Proprietary Access Solutions

Federal PIV Smartcard Legacy

Interoperable, Non-Proprietary Solutions

2004 → **2024**

HSPD-12

Technical Standards

Policies & Procedures

Government, International and Commercial Acceptance
Low-to-High Levels of Assurance (LOA) for Logical and Physical Access, e.g., *PIV, PIV-I and National IDs*

Beyond Smartcards

A Model for Trending Credentials, Alternative Authenticators and Access Solutions

Physical Access Control Trends

Traditional PACS Focus (e.g., GSA APL)

- Physical Access Control Systems
- PIV/PIV-I Smartcards
- PACS Readers

Trending Access Control Considerations

- Contactless Tokens and Interfaces
- Mobile Devices (Smartphones, etc.)
- Smartcard Emulators
- New PACS Readers to support multiple interfaces
- MFA – Biometrics, etc.
- Cloud-Based Access Control
- Data Security and Privacy
- IoT Devices and Smart Buildings
- AI and Machine Learning
- Interoperability and Open Standards

Interoperable, Standards-based, Non-Proprietary Physical Security Solutions

Trending Credentials

- mDLs & ISO 18013-5
- FIDO
- Verifiable Credentials
- Decentralized IDs,
- Derived Credentials

GOALS & BENEFITS

- Increased Security
- High Assurance
- Phishing Resistance
- Common solutions for LACS & PACS
- Lower-cost credentials and implementation
- Reduced dependency on locked-in, proprietary solutions

Interoperable Interfaces

- NFC
- NFC Connection Handover
- Bluetooth
- QR Codes
- Wi-Fi
- Cellular
- Google/Apple Wallets

Form Factors

- Tokens
- Mobile Devices (Smartphones, Tablets, Watches, etc.)
- Smartcards (still)

Multi-Factor Authentication

- Biometrics
- Location (GPS, etc.)
- KBA
- Push Notifications/SMS

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Thank You

Trends in Physical Access Control

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