The Future Of Access Control

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Agenda

1 The Access Market Today

2 Trends in the Access Industry

3 The Access Market in the next 5 years

The Access Market Today

Overview

- Relatively **unknown** for general public. **Niche market**
- **Resilient** to economic downturns.
- **Steady growth** YoY (~6-8%) for the past 20 years. Expected 6% for 2020-2024. (Hosp. > 10%)
- Perceived as **commodity** for end-users
- Eager for **innovative solutions** as differenciator factor

Trends

- Traditionally **card oriented**
- **Mobile/wearables** new form factors
- NFC tech depends on regions
  - M/Desfire (EU/Latam)
  - iClass (US)
  - Clones (AP)
  - LEGIC in DACH
  - Sony-Felica (Japan)
- Still **high** footprint on LF 125Khz

Main Players

- **Market Size**: 100 Bio USD
- **5 major WW Players**: Rest very fragmented.
  - ASSA-Abloy (HID)
  - Allegion (CISA; Interflex; Simons&Voss; Schlage)
  - dormakaba
  - Johnson Controls (Tyco)
  - SALTO Systems

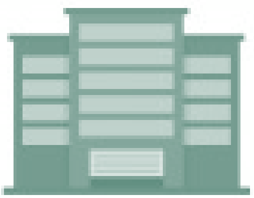
Physical Access & ID Use Cases

Residential

Events

Education

Car Access



Corporate

Industry

Hospitality & Leisure

Healthcare

Form factors and system features vary depending on
- Security requirements
- Aesthetic design & Architectonic needs
- Use cases & Regions

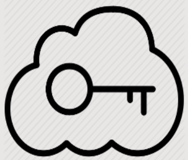
Agenda

Market Trends. Technology & Innovations

- Main drivers for the Access Market Today
  - ACaaS: Access Control as a Service
  - Mobile Access
  - Standalone components „*Smartlocks*“
  - NFC vs BLE vs UWB
  - Standardization: EN, ANSSI and OSDP
  - Eco & Green
  - Biometrics after Covid-19. Touch & Contact less?

Trends in the Access Industry (I)

ACaaS: Access Control as a Service



PROS

- Lower cost
- Scalability
- Faster integration with 3rd parties
- Simpler maintenance for end-user

CONS

- High Initial resources needed and long T2M
- Security resources & expertise needed **inhouse**
- Players **not used to service** model

Mobile Access

PROS

- Convenience, flexible, lower cost
- Up – Cross Selling (Hospitality, Loyalty, Events, Geo-Loc)
- **All-In-One**: Ticketing-PAY-eID-Access
- **Ubiquitous** (45% Popul ~ 3,5 Bill users WW)

CONS

- Complex biz models
- User **not accustomed** to subscription
- **Lack of standards**, not interoperable systems
- No private phones for business
- Security: Mobile 24x7 on-line
- **Ramsom episodes** more frequent

Smartlocks

PROS

- Easy deployment, lower costs and aesthetic design
- **All-in-One:** BLE; NFC; UWB; WI-FI for B2B markets
- Low power consumption
- **OTA („Over The Air“)** updates

CONS

- **Inexpensive and unsecure** brands floading the market
- **Big players** (Apple, Amazon, Samsung) coming into the B2C industry **as threat**
- Standardization **not yet effective** despite OSS/SPAC

Trends in the Access Industry (II)

NFC vs BLE vs UWB

- Former exclusive approach replaced by **inclusive alternatives**
- Each technology designed and suitable for **specific use cases**
- Offering includes integrative solutions extended to Bio and FaceID

EXPECTATIONS

- Devps. in **BLE/NFC** to continue
- BLE beacons & **RTLS new trends**
- **UWB rel. unknown** but potentially rising. Infras not yet in place
- Post Covid-19 **an open question**; **security & contact-less to increase** (health, identity, personnel attendance and fraud)

Biometrics

- Authorities to enforce **contactless** solutions after Covid
- **Facial and Iris** recognizion to gain momentum
- Privacy, GDPR and ethical considerations **a big concern**
- Different countries have different approaches. Ban/Allow

EXPECTATIONS

- Governments expected to prioritize face and iris technologies
- Fingerprint reader or palm vein projected to decline
- Biometric cards **a question mark** for the Access Industry

Standardization

- **Need** for standardization
- Alliances **OSS or ANSSI** in EU. **SIA in US.** Other regions not yet organized
- End users pushing for **interoperability**
- Lock vendors still **reluctant** to open standards → **Lock-in effect**

EXPECTATIONS

- End-users to **increase influence** in standardization adoption
- **Convergence** with Payment, Transport, eID, e-Wallet
- *„Foreign“* technologies **to have an influence** in the Industry (CIPURSE; Calypso)

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The Access Industry in the 2025 horizon

Opportunities

- **Security** requirements expected to increase due to:
  - Integration with 3rd parties (IoT; Smart Cities; Smart Buildings)
  - Mobile Access and migration to Cloud
- **Contactless** in the rise to replace old technologies
- **Biometrics:** Facial, Iris and Bio sensor cards to raise attention in the Covid-19 aftermath
- **Convergence:** Payment, eID, e-Wallet, transit expected to increase convergence among applications and technologies

Risks and challenges…

- Extremely **fragmented and crowded** market landscape
- **Commodity** business. Security won‘t sell by itself
- Covid impact still unclear in the mid-long term

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