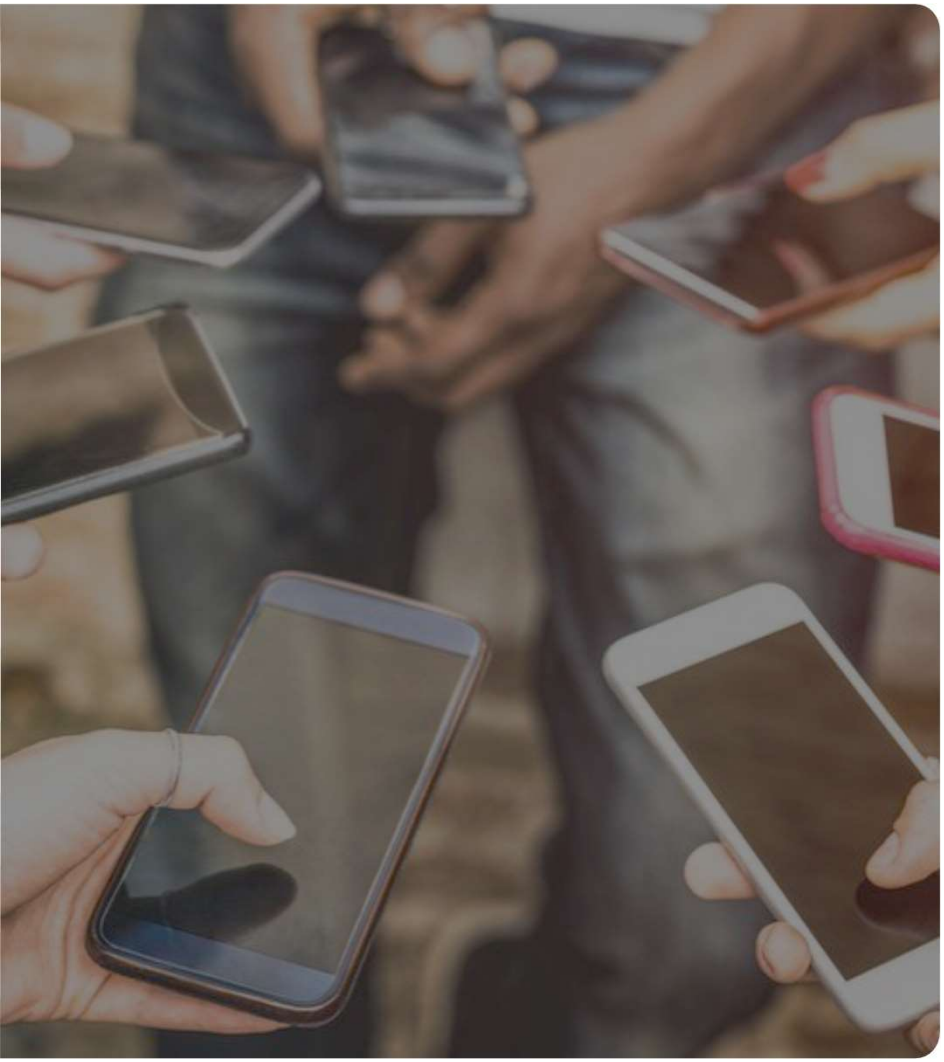

Part of
AXIS
COMMUNICATIONS
WaveKey
Mobile access made reliable

Having mobile access in the portfolio means having a future in Access Control business

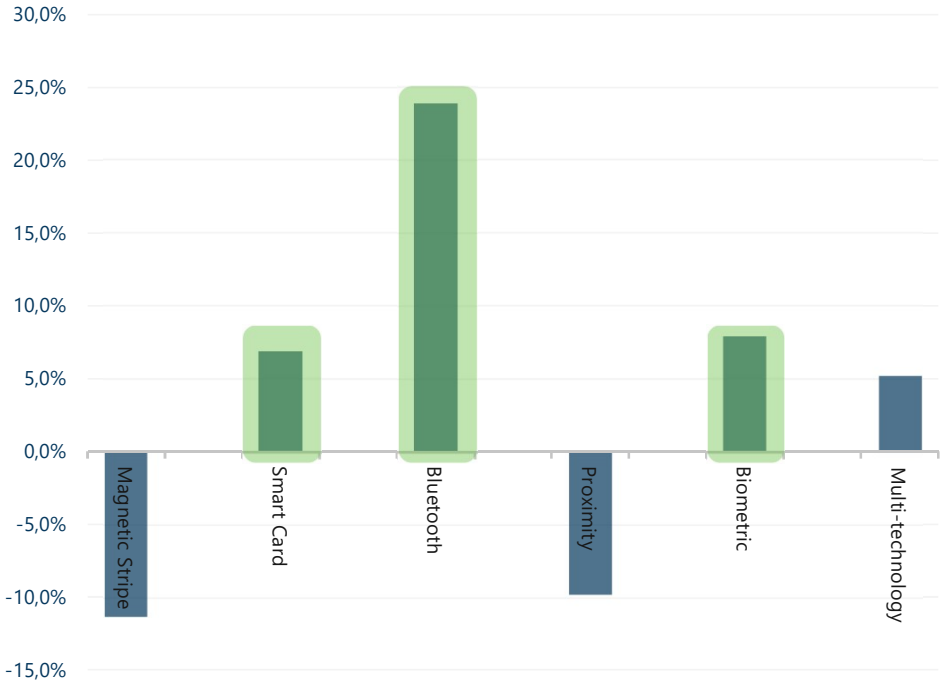


Why mobile credentials?

Factors determining the success of WaveKey

Benefits of mobile access

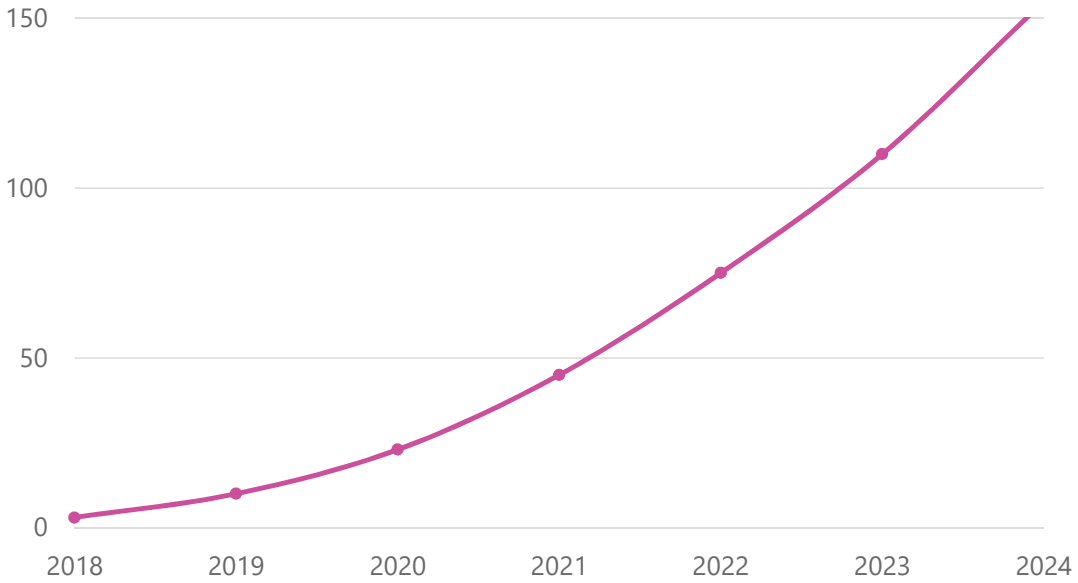
2019 -2024 CAGR by credential type



Source: OMDIA Access Control Intelligence Database – 2020

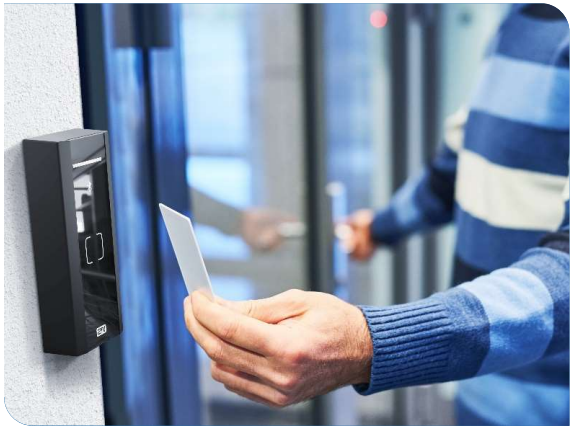
What are the fastest growing access control technologies today?

Downloads of mobile credentials worldwide [millions]



Source: OMDIA Access Control Intelligence Database – 2020

The industry is predicting exponential growth in mobile credentials over the next few years



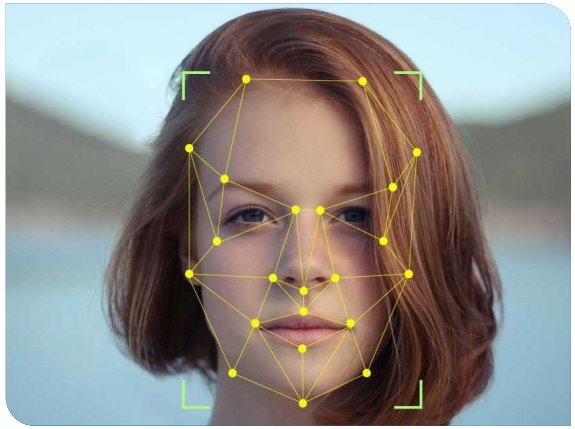
Smart Cards

Secure (13.56MHz)

100% accurate

Inconvenient

Easily misplaced or damaged



Biometrics

Convenient

Never misplaced

Privacy & ethical issues

Speed vs accuracy trade-off

Mobile Credentials

Convenient

Issuing of Remote credentials

What are the challenges?

Feedback from App stores of other providers …

*"It **rarely works**. I end up at the gate forever getting honked."*

*"**Works infrequently** at security gates. V. frustrating"*

*"Every day, **I have to wait** in a line of cars to enter a parking garage..."*

*"Sometimes it works, **sometimes not**."*

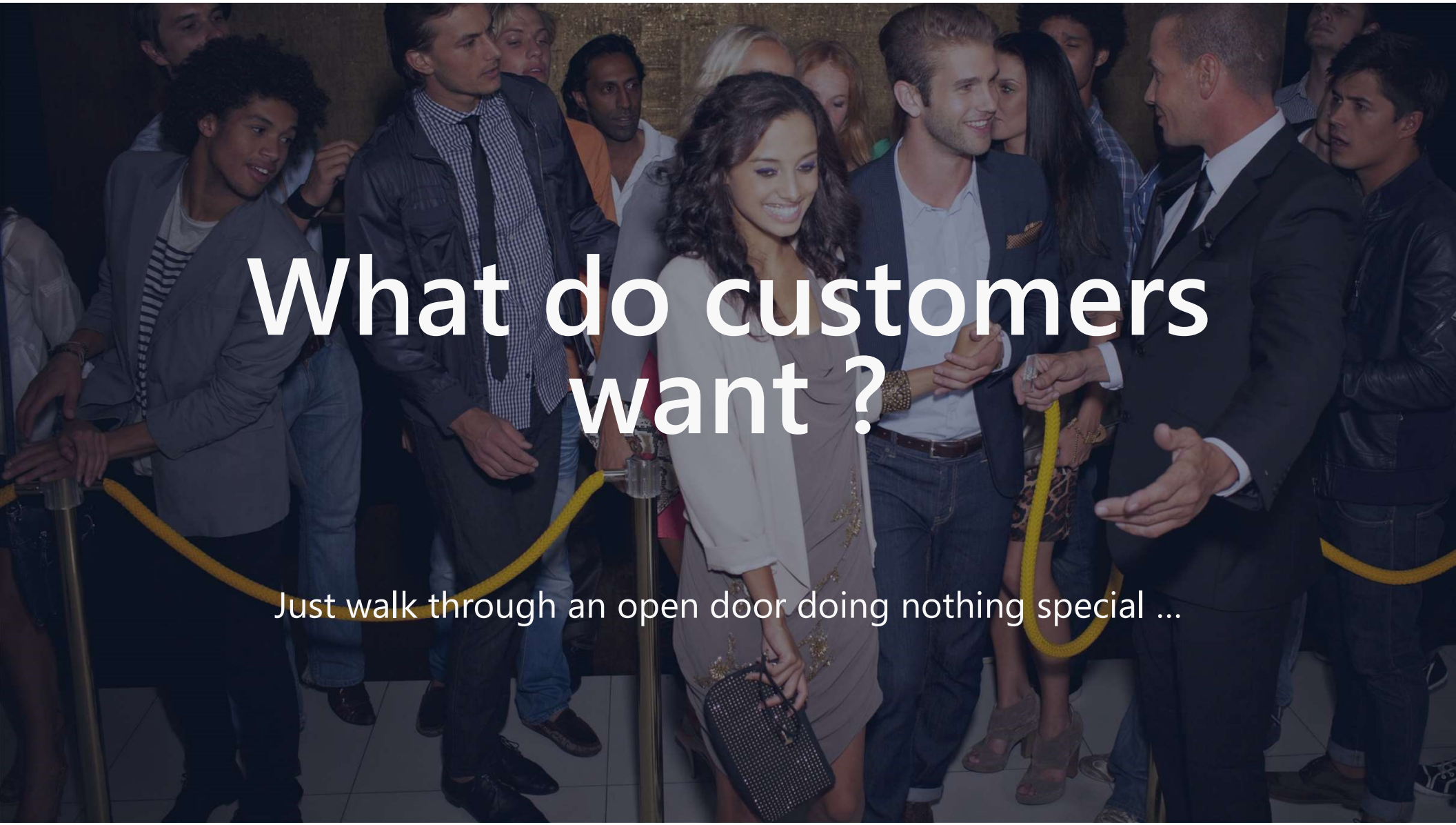
*"This app still sucks. It's **unreliable**"*

*"It takes forever. **So SLOW**."*

*"having to **try several times** to unlock a door."*

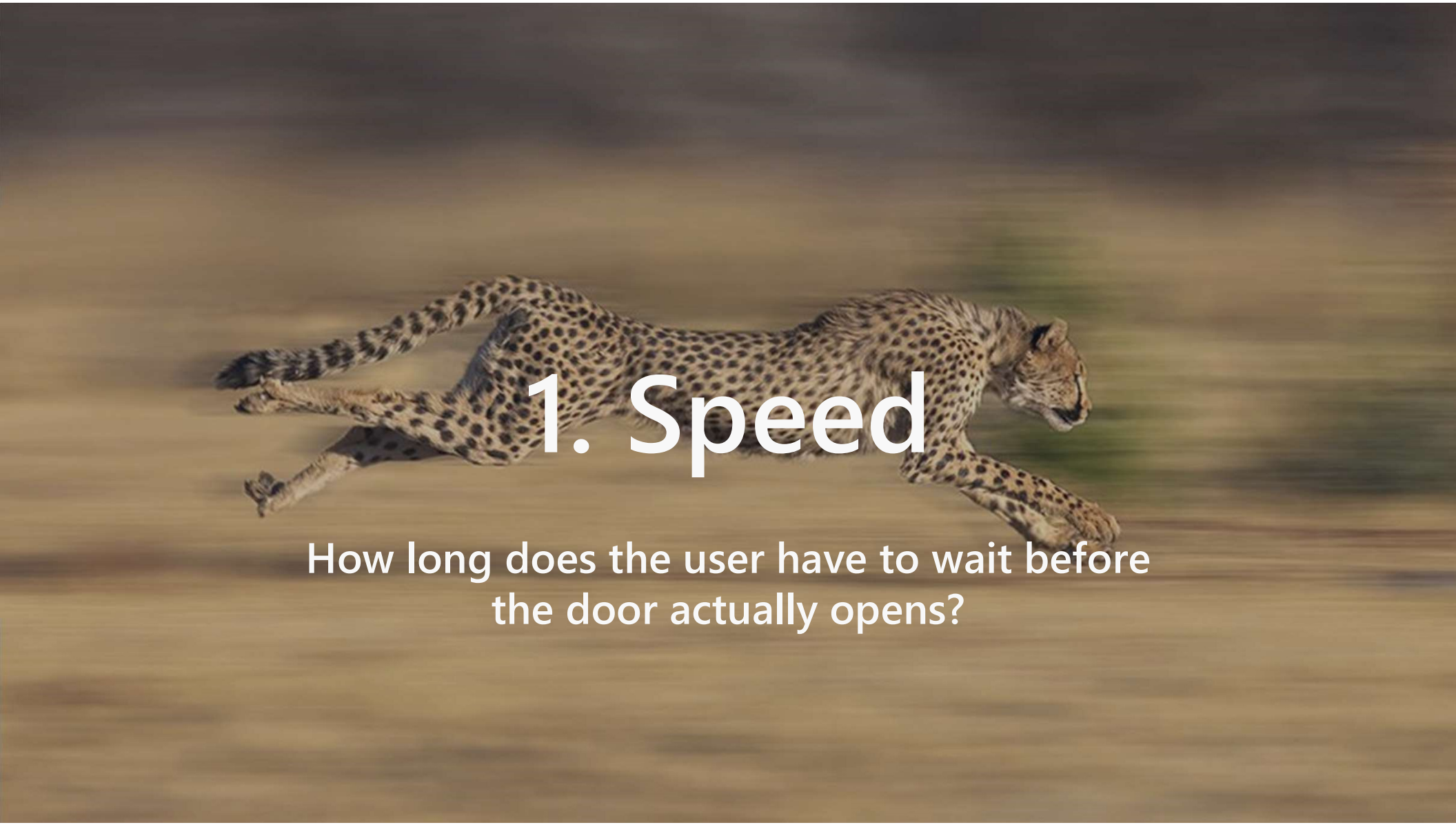
*"**Not unlocking quickly** or having to **attempt multiple times** to open door"*

*"takes **quite some time.**"*


What do customers want ?
Just walk through an open door doing nothing special ...

Fundamental factors of mobile access

1. Speed
2. Reliability
3. Security in office

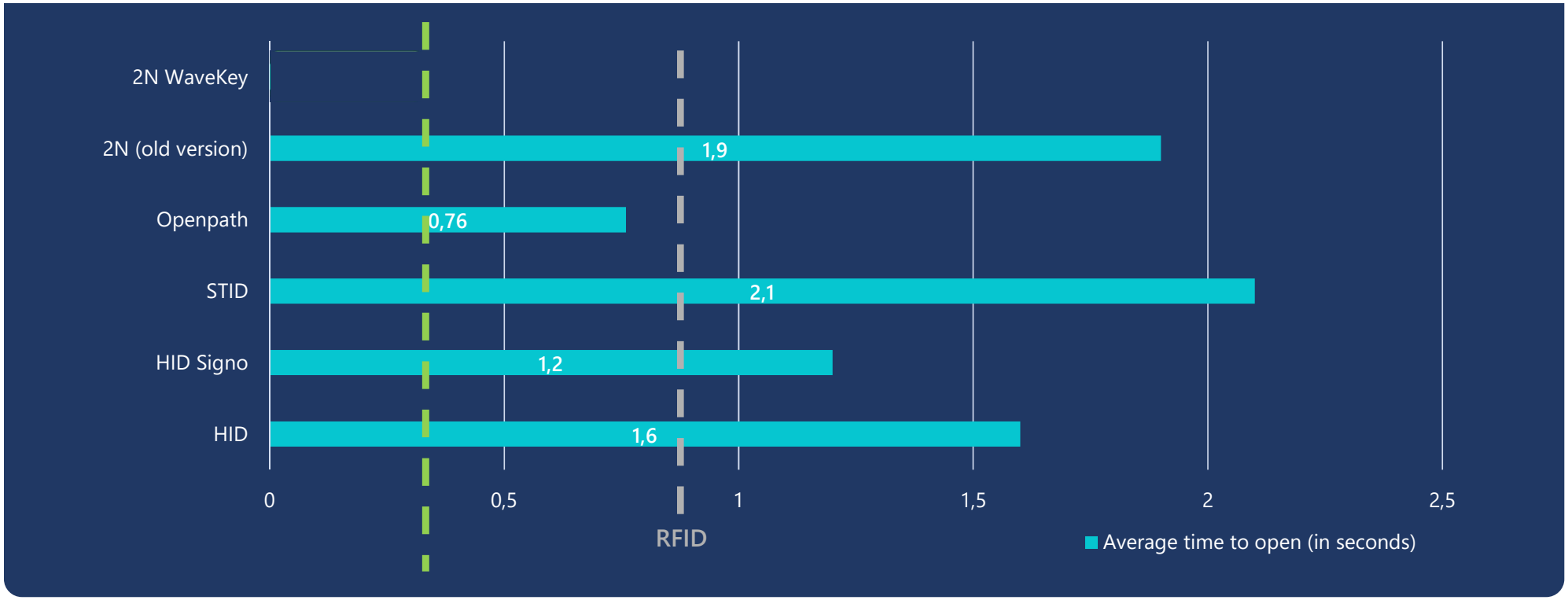

1. Speed
How long does the user have to wait before
the door actually opens?

Fast even in busy office environment

Unique pre-authentication system

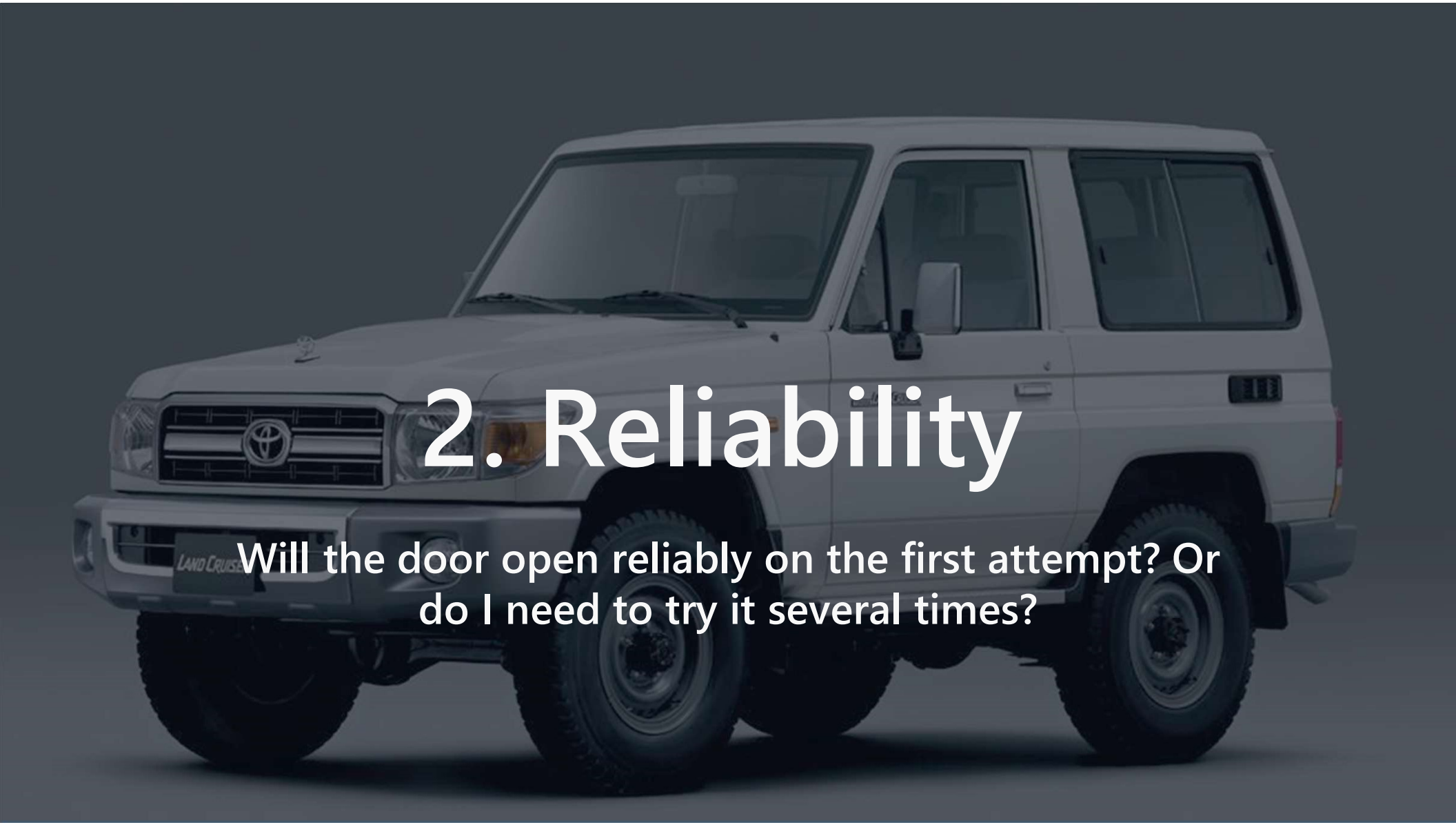
Parallel communication with up to 8 phones within the reader’s range

Frictionless passage throughout the building



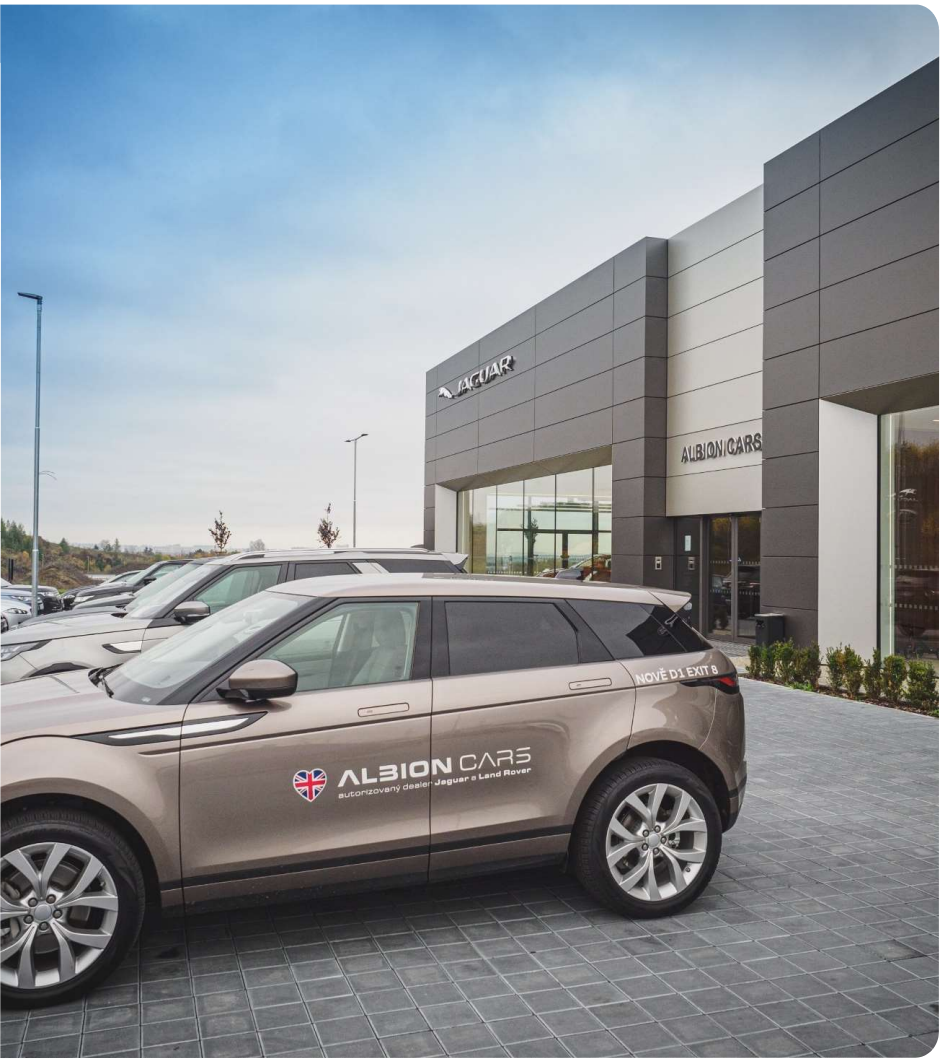
Time to authenticate needs to be similar to that of an RFID card

WaveKey is the fastest technology available today



2. Reliability

Will the door open reliably on the first attempt? Or do I need to try it several times?



WaveKey
The pass you trust!

7 months of intensive testing

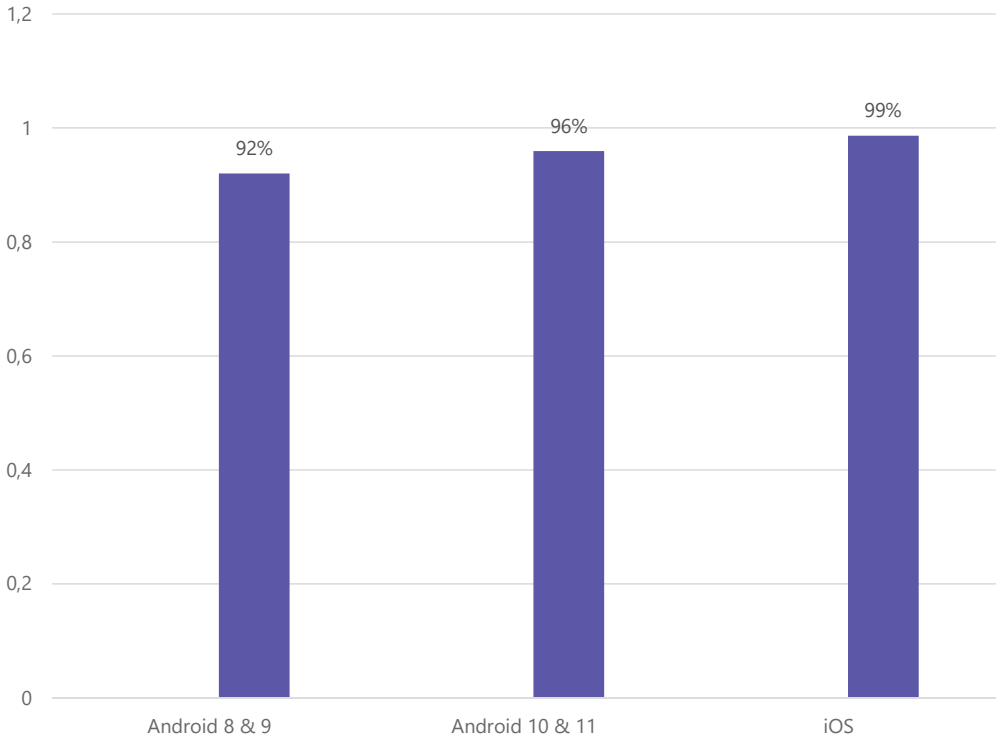
More than 130 testers

20 phone brands & 100 phone types

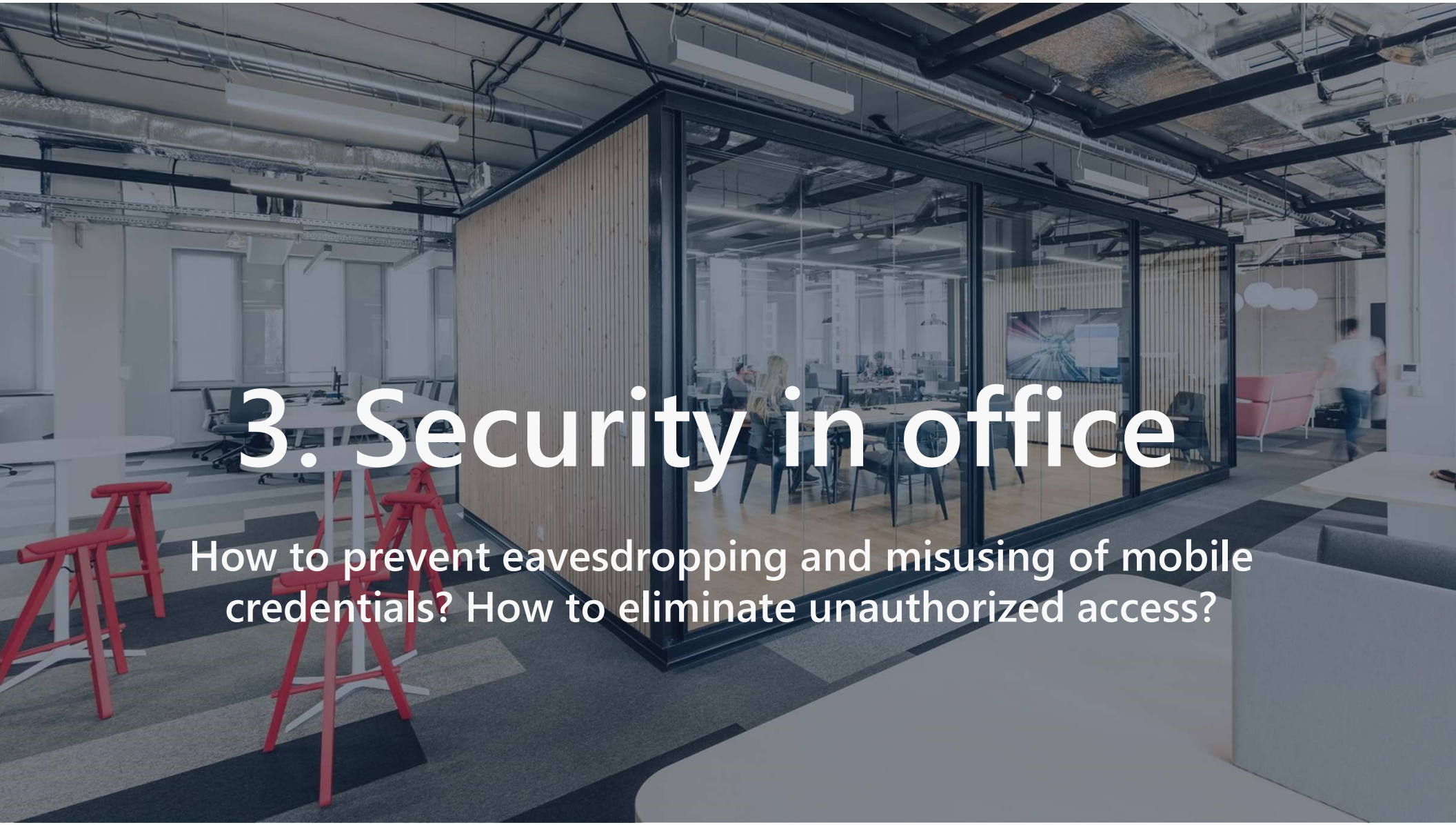
44 doors

Over 15.000 door openings

Door opening under 1 second



With WaveKey you have **98%** open success on the first attempt



3. Security in office

How to prevent eavesdropping and misusing of mobile credentials? How to eliminate unauthorized access?

Prevents misuse of mobile credential

Encrypted communication between the reader and mobile app

- AES-128, RSA-1024, our own secure layer
- Impossible to duplicate credentials or eavesdrop the communication

People rarely misplace or lend others their phone (unlike the cards or keys)

Solved unwanted door openings

2N is the only one to tackle this issue

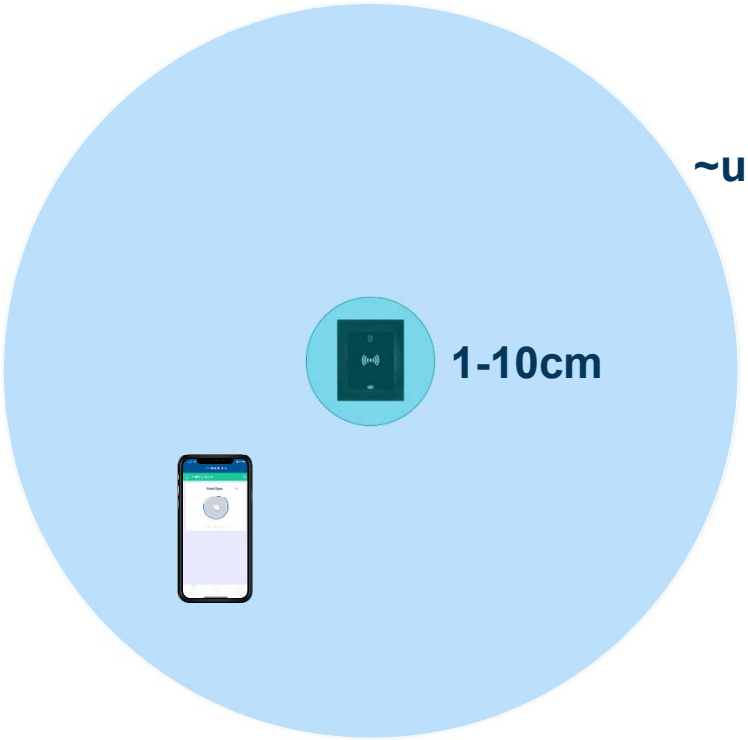
Thanks to adaptive algorithms and RSSi signal trend analysis:

- the reader knows whether the user is approaching or moving away from it
- a phone within range but lying on a table will not open the door

How do the algorythms work?

Very close range (card mode):
ignores RSSi & motion sensor

How do the algorythms work?

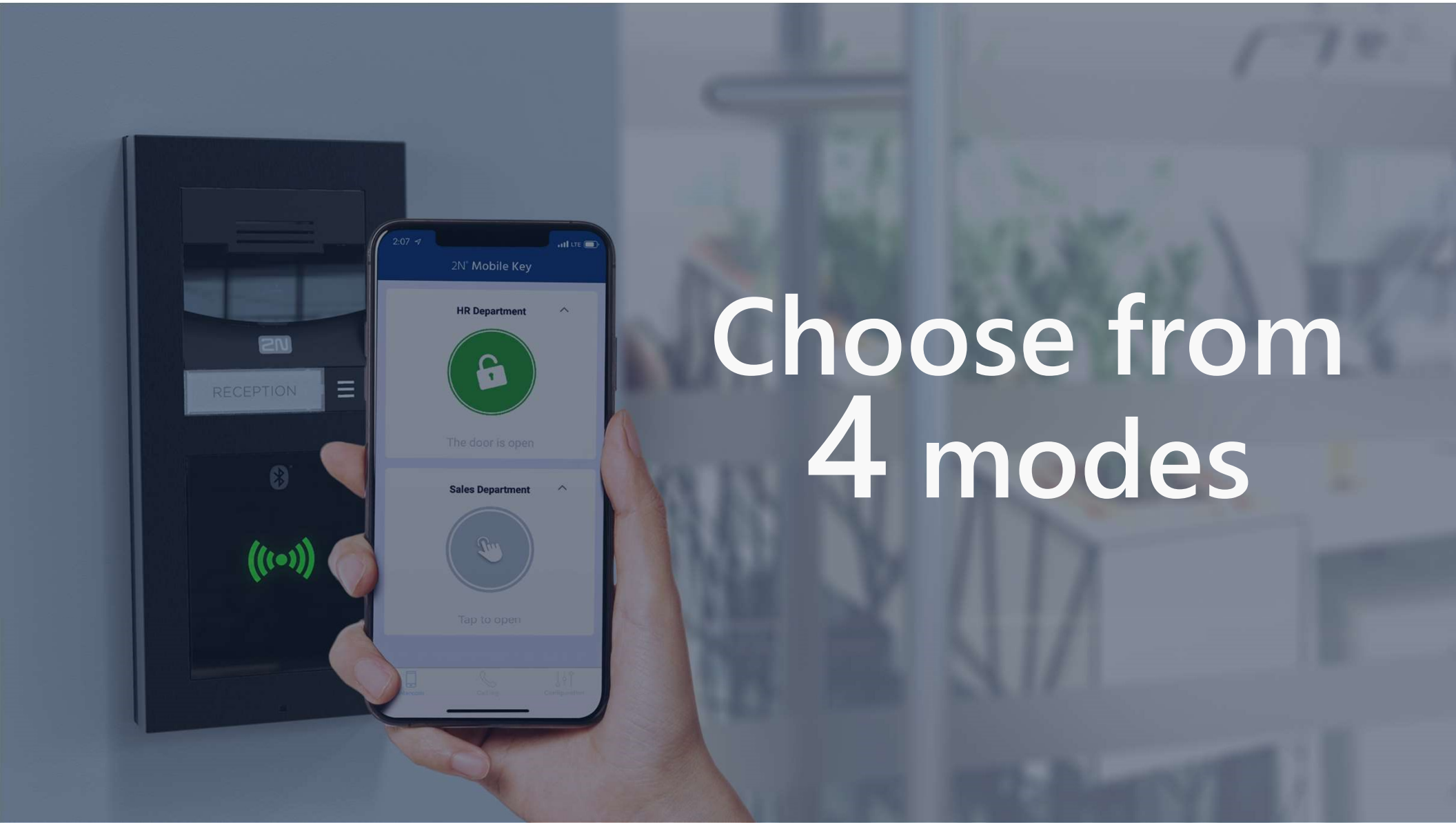


Very close range (card mode): ignores RSSi & motion sensor

Close range: Motion needed but no RSSi pattern observed (approaching/not approaching)

Further range: Motion needed & RSSI trend of approaching

Note: this is related mainly to the Card, Touch and Motion mode (i.e. you don't open doors from the app)


RECEPTION
2:07
2N° Mobile Key
HR Department
The door is open
Sales Department
Tap to open
Choose from
4 modes

Touch mode

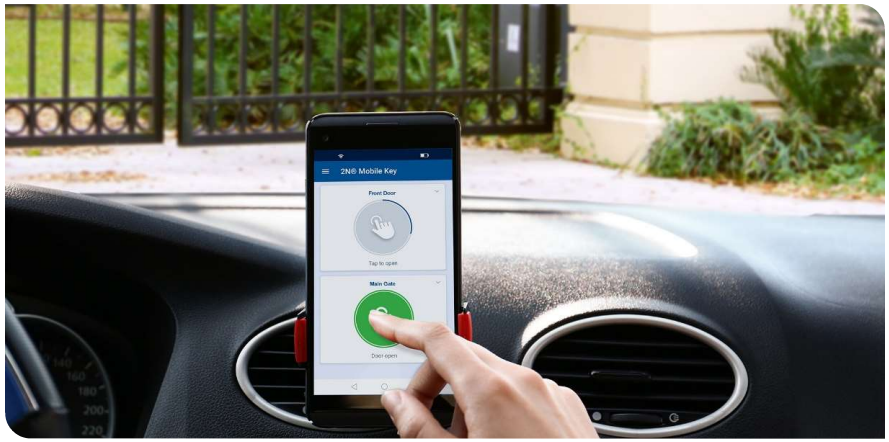
This mode ensures absolute **convenience**. Users only touch the reader with their hand or elbow and leave their **phone in their pocket or handbag**.

Motion mode

Motion mode is completely **contactless**. All you have to do is approach the video intercom with the **phone in your pocket** or wave your hand over its camera and the door will open.

Tap in app mode

Contactless mode that offers greater security. Users must disable any lock screen, and open the door via a virtual **button in the app**. This is also an ideal way to open the exit gate from a car park while sitting in the car.



Card mode

In this mode the **phone works as a card**, and the user has to place it right next to the reader. This is similar to the popular NFC technology, but with WaveKey, it works via Bluetooth with Android and iOS phones.


What are the benefits
of mobile access?

Convenience

Nobody wants to carry around so many cards and keys

Users only need their smartphone in their pocket to gain access

Phone is easily located key

Remote issuing / revoking

Quick generation of the credential

Remote and frictionless hand over

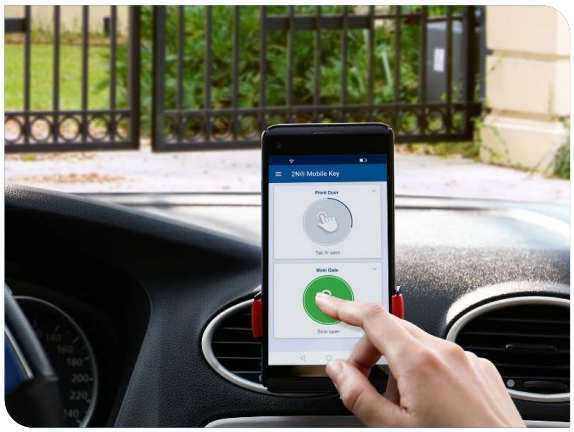
Very easily replaceable if a phone is lost or stolen

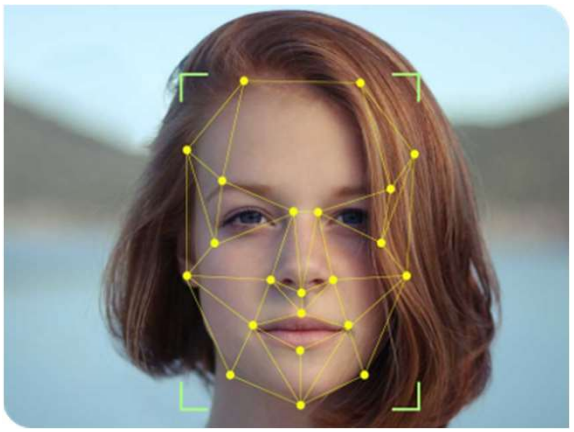
No wasted costs

2N mobile credentials are for free (compared to 5-10€ per each lost card)

No costly physical distribution

No need for camera-equipped hardware (facial recognition)





Not „sight“ dependent

Well-suited to places with low-light conditions

Approach from any direction – doesn’t require line of sight

Open the barrier from the car

Various operational modes

Mobile credentials usually offer more ways of authentication

Configurable communication distance for each door

Anonymous credentials

Avoid the problems of handling sensitive personal data (biometry)

Not tied to immutable characteristics, can be turned off

No GDPR nightmare

Compatible products

Bluetooth-based readers and intercoms


2N Access Unit M


2N Access Unit 2.0


2N® IP Verso


2N Mobile Key
HR Department
The door is open
Sales Department
Tap to open
2N® Mobile Key app


Part of
AXIS
COMMUNICATIONS
Discover WaveKey
... and raise the standards of mobile access control to the next level!