

NFC@Telefónica CZ

Near Future Cases

Smart Cards & Devices Forum
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The Telefónica logo is written in a classic, elegant script font. It is positioned in the bottom right corner of the slide, above a thin horizontal line. The background of the slide features a dark blue sky with a formation of aircraft, possibly a military display, moving from the top right towards the bottom left.

Where do we stand?



1st NFC phone based transport in Europe

04/2009

50pcs Nokia 6212 – Pilsen Transport card
Mifare Classic card emulation in mobile phone

05/2010

1.000 pcs of Nokia 6212 – commercial roll out

12/2010

NFC Phone as card validator

11/2011

Samsung NFC devices with USIM centric solution
Pilsen transport card + payment card from City

www.plzenskakarta.cz

**POPRVÉ V ČR
PROPOJENA
MĚSTSKÁ ČIPOVÁ
KARTA A MOBILNÍ
TELEFÓN POMOCÍ
TECHNOLOGIE NFC* ;o)**

- > Limitovaná edice pouze v O2 *
- > Integrovaná **Plzeňská karta**
- > Funkce elektronické peněženky, se kterou si můžete kupovat lístky ve vazech MVD (městské veřejné dopravy), můžete využít u partnerů, máte neustálý přehled o zůstatku a posledních transakcích.
- > NFC = Near Field Communication

Limitovaná edice pouze v plzeňských O2 Prodejnách

DC Olomouc, Pivovarská 173/1
MC Banka jede-Telex, U letiště 170/19
Salm 18, Pivní centrum

Více možností. O2

1st NFC phone based payments in CZ and SK

Komerční banka (VISA)

08/2012

3 NFC phones from beginning

Limited edition

2000 SIMs with pre-personalized applet



Tatrabanka [SK] (VISA)

01/2013

Started with 6 NFC phones

5000 SIM with pre-personalized applet



GE Money bank (MasterCard)

01/2013

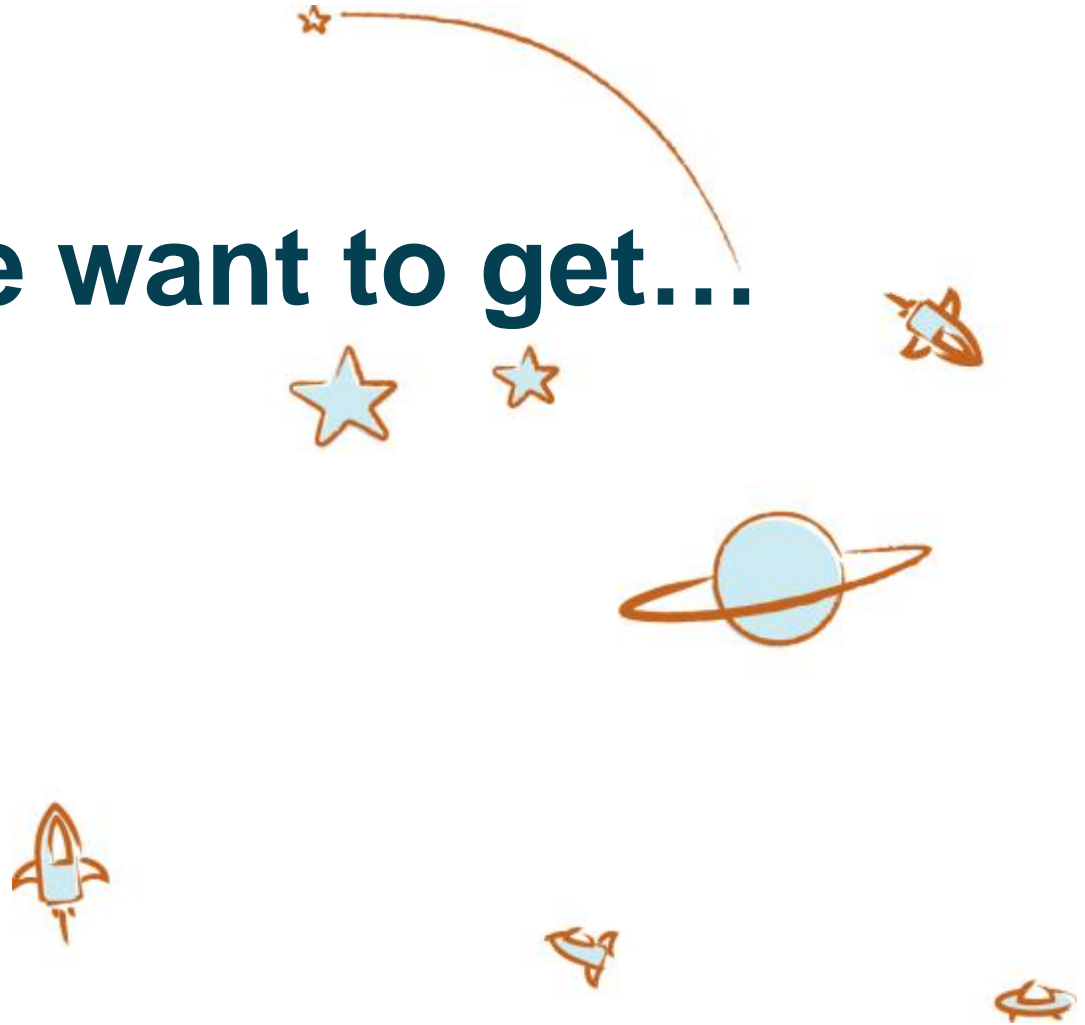
Now 7 NFC phones and rising...

Standard O2 CZ NFC SIM card,

3 different payment cards available



Where do we want to get...



One card to rule them all...

Access, Entrance

- Entrance ID card - Buildings
- Entrance - Parking
- Entrance - cinema, theater, concerts



Transportation cards

- Pilsen Card
- Opencard,
- Ceske drahy - InKarta



Payment cards

- Contactless cards:
 - Closed loop
 - EMV



ID cards

- National ID
- Student cards
- E-health



Device to device/tag

- Tag reading
- Data exchange



Loyalty cards

- Loyalty cards
- Vouchers
- Coupons etc..



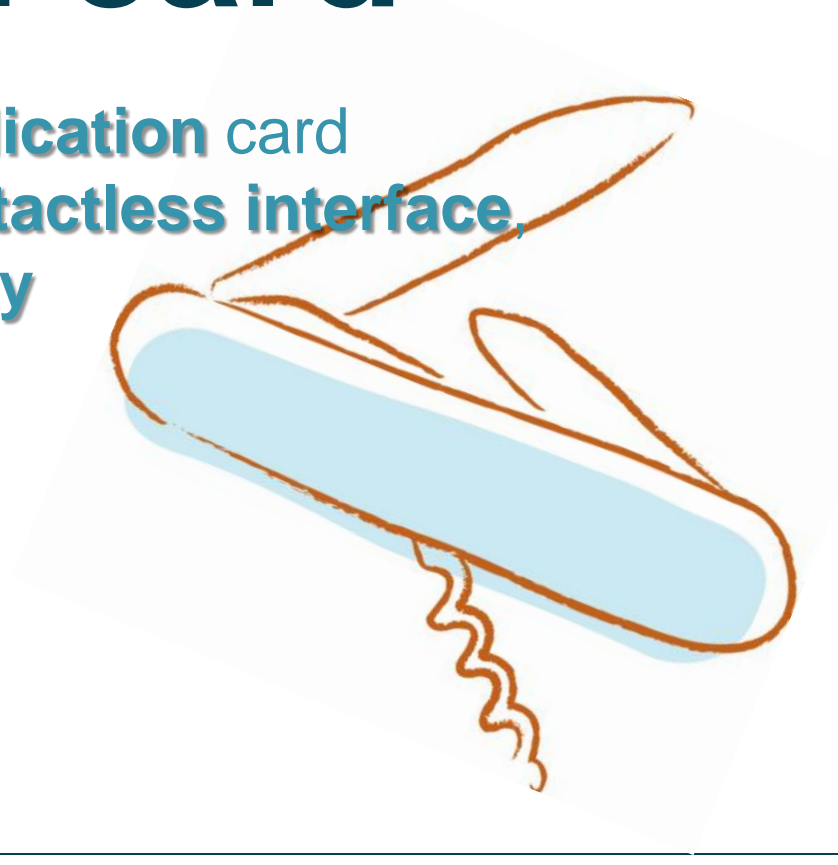
Security

- PKI, OTP, ...
- Smart card log-on
- Document signature



NFC SIM card

Is the **only multi-application** card with **contact** and **contactless interface**, has **keyboard, display** and is **online 24/7**.



What we are doing for it...



Our approach to SIM based applications (1/2)

Thanks to high level of abstraction for the core SIM applications we are able to cover virtually all use cases needed for both corporate and retail users.

Abstraction level

Access/Identification
(Will of the accepting party)

Authorization
(Will of the card holder)

Possible use cases

Building entrance, computer and intranet logon, VPN authentication, transport applications, coupons...

Remote payment authorization, document signature, money transfer authorization ...

Our approach to SIM based applications (2/2)

Single device approach

- NFC interface might not be needed for some use-cases
- Handset application use the services available from SIM currently inserted
- PIN protected or PIN-less information available

Double device approach

- Data are exchanged between two devices using the NFC interface.
- Data exchange between the handset and:
 - › Handset
 - › Tablet
 - › PC with contactless reader
 - › POS, kiosks, ...
 - › Virtually any NFC capable device*
- PIN protected or PIN-less information available

* *Depending on the application needs*

SIM.me – SIM stored identity

Sensitive information stored on the card (SIM.me)

- Personal information repository for handset applications
 - Name, address, certificate ...

- Biometric information if needed
 - Photo, fingerprints, eye color ...

- Trusted source of personal information
 - Telefónica in the role of registration authority
 - Some biometrics may require verification by 3rd party
 - Personal data stored on SIM only after verification at POS



Feature 1: Access/Identification (slide II/II)

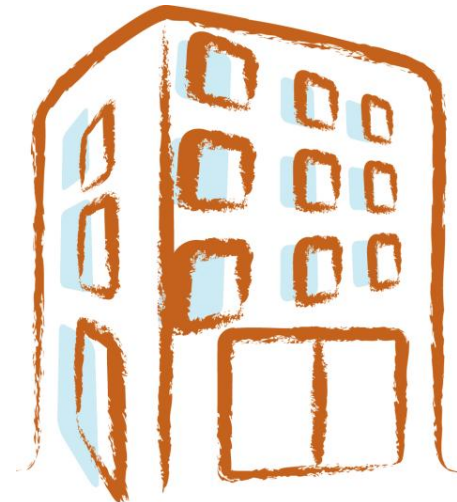
Typical applications

■ Building/venue access

- Even for the application that require presence of the photography
- Dynamic access codes
 - › not just card ID

■ Access to virtual applications

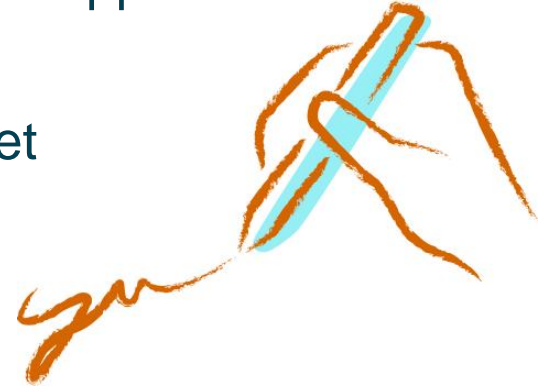
- Logon scenarios (device, portal or network)
- Identification for the remote service



Feature 2: Authorization

Using the credentials available from SIM.me

- All use-cases where the will of the customer/employee needs to be verified and stored
 - both physical and electronic/virtual
- General document signature
 - Document signed using the qualified or commercial certificate
 - Using the corporate/internal PKI to speed up the approval workflow
 - For the “double device approach” the signed data can be verified on the display of handset prior to signing



Sneak preview (Demo)



Thank you for your attention.

Discussion

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