NFC Virtual Ticketing

How we deployed rapid, scalable, mobile ticketing solutions with no infrastructure upgrade

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Introducing Suzhou Citizen Card

- Suzhou is a city in the east of China, about 100 km (62 mi) northwest of Shanghai city, with over 10M population.

- Suzhou Citizen Card is a multi-application card for local residents to pay for and access public services - such as transit or leisure amenities.

- In addition, payment transactions are supported in supermarkets, gas stations or taxis.

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The Dilemma Facing Suzhou Citizen Card

01

Open loop based Payment Network Operators

02

QR Code based Internet Leaders

push

03

Transit card users demanding convenience of virtual cards

pull

?

Threat

PTAs have a limited role if (bank) open loop or (Internet Leaders) QR-code solution dominates the market

Opportunity

Mobilizing the service without losing control of core business, big potential to optimize and extend the service to customer

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eSE NFC solution was Chosen

Selection Criteria	Open Loop		QR Code		HCE NFC		eSE NFC	
No upgrade to existing Infra/Backend System	🔴	No	🔴	No	🔴	No	🟢	Yes
No upgrade to existing Business/Service processes	🔴	No	🔴	No	🔴	No	🟢	Yes
No compromise for Security/Performance/Robustness	🟢	Yes	🔴	No	🔴	No	🟢	Yes
No compromise for Device Coverage	🟢	Yes	🟢	Yes	🔴	No	🟠	Mid
Keep control of Core Business and Customer	🔴	No	🔴	No	🟢	Yes	🟢	Yes
Cost effective & Time to Launch	🔴	No	🔴	No	🔴	No	🟢	Yes

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Key Attention Points for eSE NFC solution

OEM Dependency	Technical Complexity	Full Lifecycle Management

OEM Dependency
- 10s of mobile and wearable OEMs (device makers)
- Authority from OEM is needed to access the eSE in device

Technical Complexity
- Filling the technical gap between NFC/eSE chipset & JavaCard OS--> device --> app --> platform
- OEM introduces new models every year with potentially different NFC/eSE chipset HW or JavaCard OS

Full Lifecycle Management
- Service level (activation, top up, ticketing sales, refund, backup, restore)
- Device Level (change, broken, lost, factory reset)

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One Stop Solution from Snowball
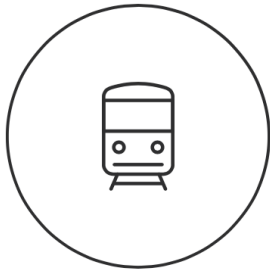
pull

transit○nboard™

- Java Card Applet to emulate any card scheme or specification

- Virtual mobile ticketing SaaS platform

- New OEM onboarding service

- New device onboarding service

- 2nd line customer care support

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Service Launched within 3 Months

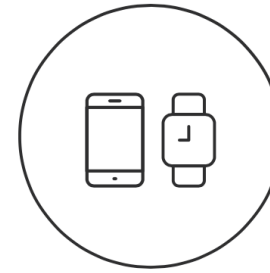# NFC Virtual Ticketing Enabled by transitOnboard™
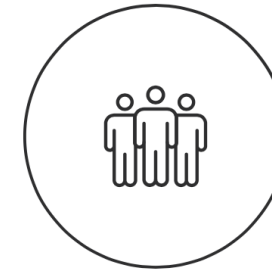
0024

public transport authorities

0101

cities benefit from our platform

0226

smartphones and wearable devices are fully compatible

0608

million urban population have access

NFC

Virtual **Install**
Virtual **Top Up**
Virtual **Transaction**
Virtual **Refund**
Virtual **Backup & Restore**

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For more information on:

Please come and see us on stand: **E32**

Immediately on your right as you walk out of the Theatre

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