
Where's the V in NFC?

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Where's the V in NFC?



How far have NFC and m-wallet deployments reached?

What barriers remain?

Who is making money?

What role can acquirers play?

UK mobile market

UK consumers and businesses are addicted to smartphones and to e-commerce

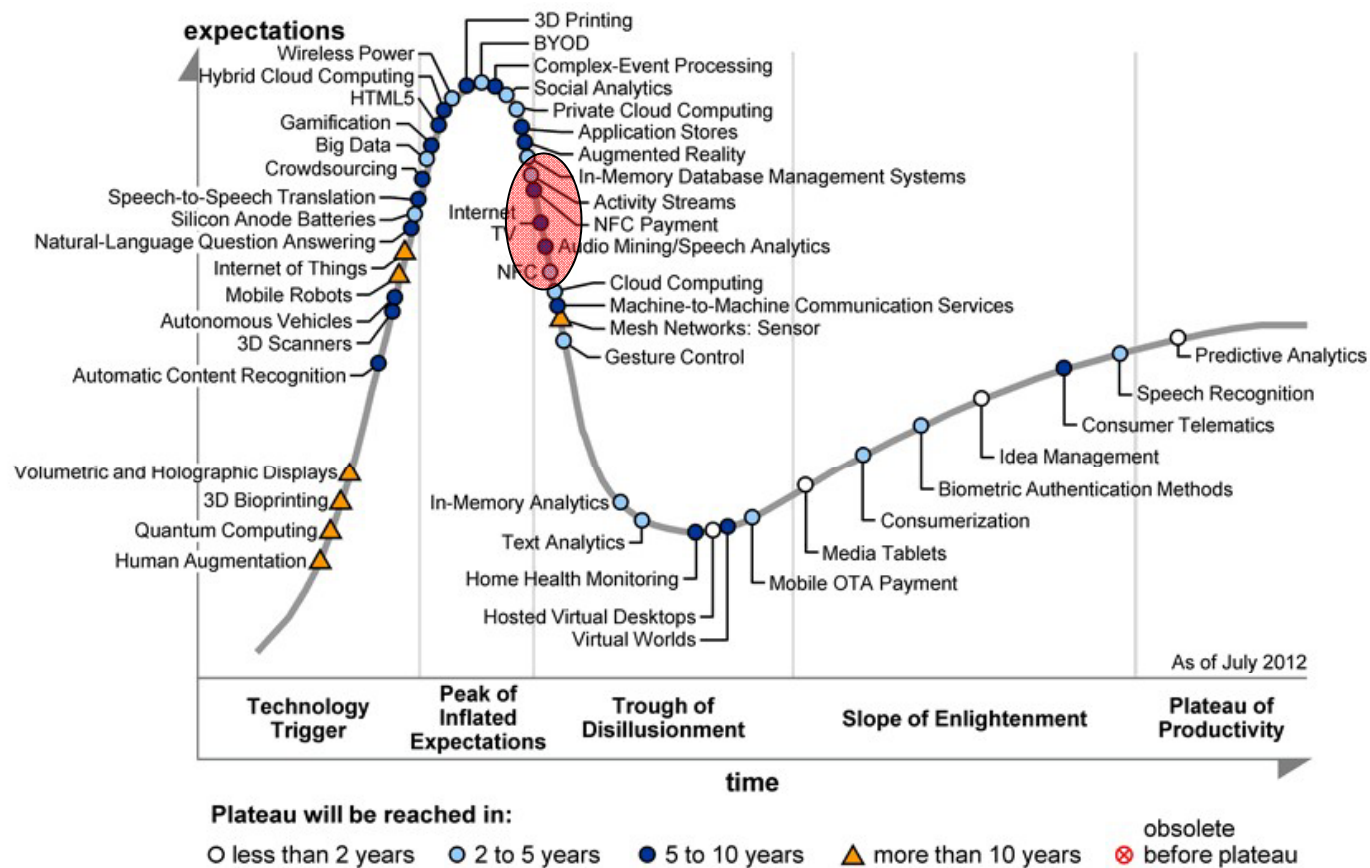
- Highest penetration of smartphones in Europe (50% at end 2011, cf 1 in 6 worldwide)
- Highest per-capita B2C e-commerce spend in the world (£1000)

Source: Ofcom International Communications Market Report (December 2011)

- But not yet to NFC!



NFC in the Hype Cycle



Source:
Gartner
(August 2012)

Do you have an NFC phone?

Acer E320 Liquid Express, Liquid Glow

BlackBerry Bold 9790, 9900, 9930

BlackBerry Curve

9350/9360/9370/9380

C-mii 1 and 3

Casio DT-X8 and IT-800 (PDAs)

Fujitsu Arrows μ F-07D

Google Galaxy Nexus

Google Nexus 7 & Nexus S

HTC Desire C

HTC Droid Incredible 4G LTE

HTC Evo 4G LTE

HTC Incredible

HTC One X/XL

HTC Ruby/Amaze 4G

Huawei Ascend Y201

Huawei Sonic/Turkcell T20

Kuoziro FT701W NFC Tablet

Lenovo K800

LG Optimus 3D Max, 4X HD, Elite

LG Optimus L5, L7, LTE & LTE Tag

LG Optimus Net, Vu, Viper

LG T530 Ego

Mobiwire Cosyphone

Motorola Razr 1, Droid Razr

Motorola MC75A HF (rugged terminal)

Motorola Photon Q 4G LTE

Nokia 603, 700 / 701, 801T, 808
PureView

Nokia C7/Astound, N9, Oro

Orange San Diego

Panasonic BizPad, Eluga

Pantech Sky Vega LTE, Racer

Porsche Design P'9981

Prada phone by LG 3.0

Samsung Galaxy Ace 2, Mini 2, Note

Samsung Galaxy S Advance, Blaze 4G

Samsung Galaxy S II (some) and S III

Samsung S5230 NFC (Tocco Lite)

Samsung S5260 NFC

Samsung SHW-A170K

Samsung Wave 578 (Quick Tap), Wave
M / Y

Sharp Aquos Phone Serie

Sharp RW-T107 NFC Tablet

Sharp RW-T110 NFC Tablet

Sonim XP1301 Core NFC, XPand NFC

Sony Xperia Acro S, Ion, P, S, Sola

Turkcell MaxiPRO5

Turkcell T11/ZTE Racer II

Xolo X900

ZTE Blade II, Kis

ZTE Turkcell MaxiPLUS5

Source: nfcworld.com (6 Nov 2012)

NFC deployments

Japan: 17M users of mobile FeliCa, ~ 50 applications ... but not actually NFC!

**Korea: mobile T-money has >1.5 million users (cf 25 million T-money cards):
transport ticketing is core application but LV payments also accepted (e.g. Seven-11). Again, it's not true NFC (but NFC now being deployed)**

China: transport ticketing in several cities, 2M Watchdata Simpases

Singapore: payment, taxis (but not yet MRT)

Australia: several pilots, mostly tags

**France: Nice, Strasbourg pilots covered payment, ticketing and smart posters –
further 17 cities now planned under CityZi umbrella.**

Germany: Transport ticketing focus (DBahn), now moving towards payment

Spain: several (unlinked) city transport schemes, campus schemes

Turkey: payment, home shopping (NFC fridge magnet)

Russia: transport, vending

Ireland: Zapa loyalty stickers



UK

Many retailer smart tags / posters

- Huge interest in couponing and loyalty but not yet much action

Cinemas, pubs (NFC beer mats ...)

Time and attendance, campus schemes

Phone-specific apps: e.g. file-sharing, Bluetooth device pairing

BarclayCard: Orange QuickTap (payments) & PayTag

Oscar / Weve: initial focus on smart tags and coupons: wallet and payment to follow



NFC services launched in Oct / Nov 2012

Malaysia (public transport)

Canada (payments)

Poland (payments)

China Mobile (payments will go live in Feb 2013)

Poste Italiane (payments, e-ID / personal authentication)

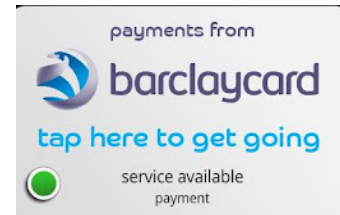
NZ (wallet with payment and transport)

UK: RBS (payments)

M-wallets

3 main options:

- Individual MNO wallets
- Super-wallets (ISIS, Weve etc)
- “Independent” commercial wallets (Google, V.me ...)



Globally there is not yet a clear leader among these groups

- But there are leaders in several countries (particularly in Asia)

What is the role of a wallet?

- Store of value?
- Protect private data and identity?
- Mutual authentication?



What is its scope?

- Geography
- Applications



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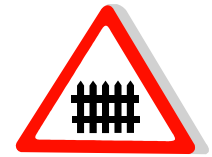


What barriers remain?

Who is making money?

What role can acquirers play?

Barriers – market-related



Markets are fragmented

- Few common or interoperable solutions
- Many vendors with proprietary solutions but no obvious winners

Infrastructure roll-out

- How to achieve critical mass for both issuance and acceptance?
- What core infrastructure is needed (TSMs etc)?

Trust issues

- Not a problem for pilots, but ...
- Security, data protection and liability issues

Making the business case

- No examples of proven success
- Is there something better round the corner?

Barriers – technical & operational



Technical compliance

- With ISO 14443 / card scheme specs if not ISO 18092
- Transmission distances, antenna sizes / power
- “Card emulation” too narrowly defined for true interoperability

Slow transaction times

- Particularly when mode-switching is required
- Does NFC only work in pilots and low-volume apps?

Operational issues

- Size / form factor of phones compared with cards
- Different combinations of technology lead to different rules

Usability

- Menu / function structures and hierarchy
- Whose app is in control?

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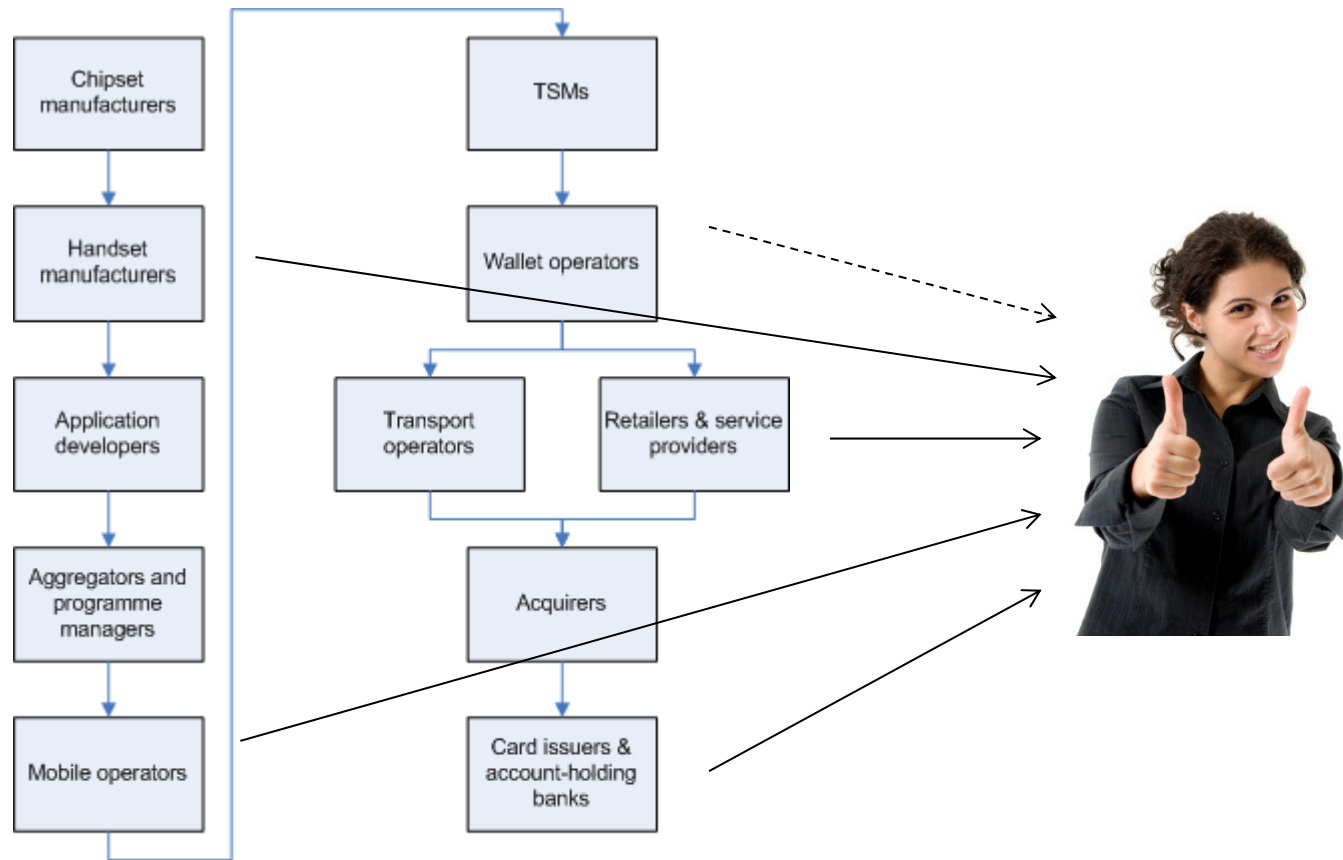
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Who is involved?



Who is making money?

Handset manufacturers	Added-value, differentiator – but it's a big punt
Application developers	Yes, but not from payments
Aggregators and prog mgrs	Some may be starting to make money
Mobile operators	Still in investment phase
TSMs	Still in investment phase
Wallet operators	Not from the NFC aspect
Transport operators	Early days – but hopeful
Retailers & service providers	Early days – but hopeful
Acquirers	High costs but few benefits
Card issuers, account-holding banks	?? Extension of mobile banking proposition

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What role can acquirers play?

All mobile propositions depend on following the transaction from start to finish

What initiates the transaction?

- Create desire or follow pattern?

Where does the mobile aspect add value?

- Is it about mobility? (e.g. travel)
- Ubiquity? (Independence of physical networks or location)
- Location-awareness?
- Link between local and wide-area networks?
- Authentication / mutual authentication?

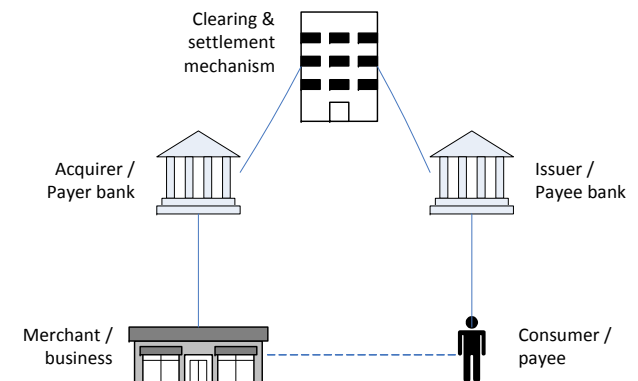
Which parties need to co-operate to achieve this?

- Retailer / transport operator
- MNO
- Other service providers: TSMs, added-value services, advertisers ...

Acquirer's role in 4-party model

- ➔ Own physical network, own or manage devices at Point of Interaction
- ➔ Own relationship with acceptors (& often with third-party payment service providers)
- ➔ Manage data flows, add value to transaction data

All these are valid for NFC payments – but what about other NFC transaction types?



What role can acquirers play?

Support customers

- Mainly retailers and public transport operators at this stage
- Opportunity to bring more transactions into card payment chain

Acquirers need to have relationships with MNOs, TSMs etc

- They are part of the network & acquirers may be their best route in

All transactions have a value

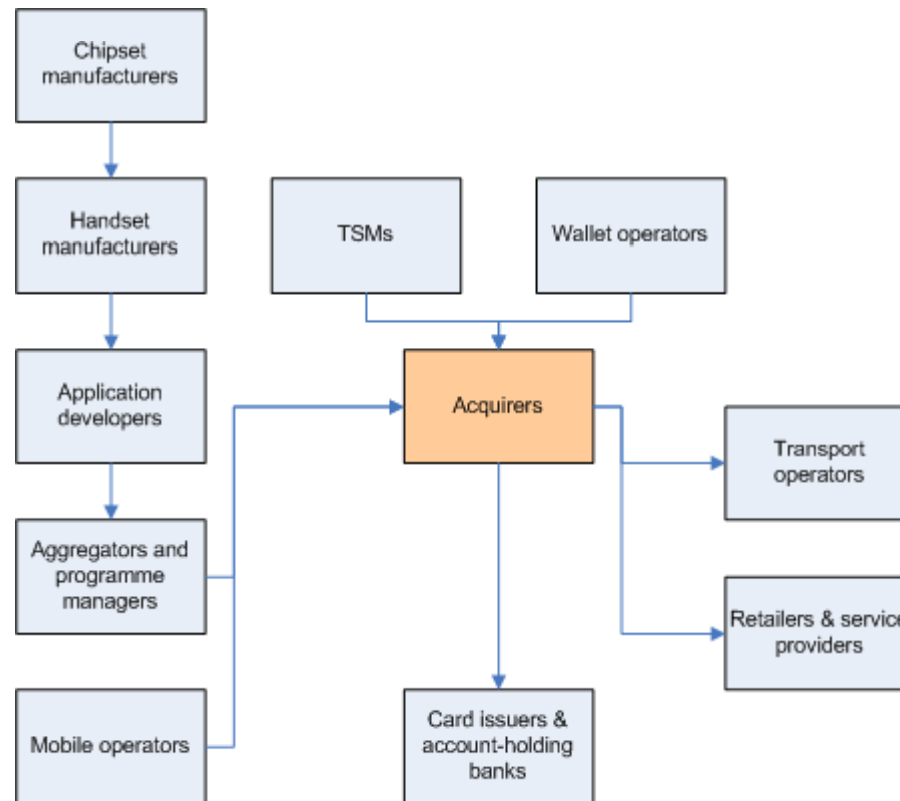
- Including non-payment transactions
- Adjust pricing models to take into account new transaction types

How to work with wallet providers?

- Proposition development
- Relationship with merchants



An acquirer view of the value-chain?



Thank-you for your attention

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