C23: NFC Mobile Payment Ecosystem & Business Model

Jane Cloninger
Director
The mobile phone is the most successful communication device in history

- Over a million new subscribers a day
- Many developed countries over 100% penetration
- Rising fast in developing countries
- 615 million mobile wallets in 2011, growing to 1.4 B by 2015

Global mobile subscribers (millions)

- Estimated 4.5 billion subscribers
- 1 billion subscribers
- 2 billion subscribers
- 4 billion subscribers

Data source: Wireless Intelligence
Mobile financial services are seen to bring immediate benefits to stakeholders

- 78% of respondents in EDC’s 2009 APR Survey believe that MFS are essential for customer retention and competitive differentiation
- 80% of respondents agree that the mobile channel will be the preferred channel for urgent financial transactions
- 74% agree that the mobile channel will be the primary channel for all financial transactions for younger consumers
- For mobile proximity payments 78% think that such payments will prove highly effective in displacing cash and cheques
- 87% indicated that mobile remote payments bring significant and immediate opportunities in specific merchant sectors such as parking etc.

Source: Advanced Payment Survey undertaken jointly by Edgar, Dunn & Co. and Card and Mobile Payments Magazine April 2009
Mobile proximity payments enable contactless payments at a point of sale (POS) using mobile phones

Mobile Proximity Payments

- “Contactless” or “Proximity” payments
- Consensus – NFC technology
- Transactions are performed by placing the mobile handset next to receiver in-store. Communication is established between the NFC enabled handset and the POS terminal. The payment transaction is captured at the terminal, authorized and processed as a regular payment transaction
- Contactless payment systems being trialed/rolled-out across the globe and have particular application in high-speed low-value payments (such as mass-transit and convenience stores)
- Multiple entities involved in the mobile NFC payment value chain

Images: Nokia 6131 NFC www.nokia.com
Proximity payments are set to achieve significant growth in developed markets.

PROXIMITY PAYMENTS FORECASTS

Growth Forecasts
% of Subscribers Using Mobile Proximity Payments

Source: EDC – GSMA Study
But when will NFC happen?
Consensus is growing that mobile payments will be a reality in the short to medium term.

### Will mobile payments reach critical mass?

<table>
<thead>
<tr>
<th>Year</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>2007</td>
<td>83</td>
<td>17</td>
</tr>
<tr>
<td>2008</td>
<td>89</td>
<td>11</td>
</tr>
</tbody>
</table>

### How long will it take?

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 Years</td>
<td>2%</td>
<td>1%</td>
<td>10%</td>
</tr>
<tr>
<td>2-5 Years</td>
<td>17%</td>
<td>29%</td>
<td>44%</td>
</tr>
<tr>
<td>5-10 Years</td>
<td>51%</td>
<td>51%</td>
<td>40%</td>
</tr>
<tr>
<td>10+ Years</td>
<td>30%</td>
<td>20%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: EDC – MPW Study
The benefits of NFC technology reach beyond proximity payments

- **Ticketing.** NFC enabled phones will allow consumers to download ticketing mobile tickets for trains, busses, metro, ferries, and flights.
- **Information Access.** Posters with smart tags are able to load information when a customer taps their phone – without the need for customers to remember a website and log on later or try keying in the URL. No mistakes.
- **Mobile Marketing and Promotion.** Customers can download discount vouchers and other items made available by retailers.

*Image Source: Ed Merritt at blog WorldPress.com*
Mobile proximity payments are set to displace cash and cheque transactions

Source: Advanced Payment Survey undertaken jointly by Edgar, Dunn & Co. and Card and Mobile Payments magazine April 2009
Bank accounts and payment/prepaid cards are considered to be most suitable for mobile payments

Source: Advanced Payment Survey undertaken jointly by Edgar, Dunn & Co. and Card and Mobile Payments Magazine April 2009
Lack of enabling infrastructure is a key hurdle in reaching critical mass for mobile proximity payments.

Source: Advanced Payment Survey undertaken jointly by Edgar, Dunn & Co. and Card and Mobile Payments Magazine April 2009. Up to 3 selections allowed for this survey question.
There is now broad consensus around the NFC business architecture with a “Trusted Services Manager” (TSM) undertaking application management.
Third-party providers are believed to be most appropriate third-party provider for over-the-air downloads

% of Responses

- Third Parties: 53%
- Mobile Carriers: 24%
- Banks: 11%
- Card Associations: 8%
- Other: 4%

*Other includes: Industry consortiums

Question: Who should be the third-party provider for OTA (Over-the-Air) downloads?

Source: EDC – MPW Study
Stakeholders will derive significant direct and indirect benefits from proximity payments

STAKEHOLDER BENEFITS AND BUSINESS CASE DRIVERS

- **Operators**
  - Direct Revenues: Rental or Per Transaction Fees
  - Indirect Benefits: Reduced Churn
  - Key Costs: Handset

- **Banks**
  - Direct Revenues: Interchange Fee
  - Indirect Benefits: Halo Effect
  - Key Costs: Rental or Per Transaction Fee
Respondents believe that the most likely scenario for proximity payments is an inter-entity transaction-based pricing model.

Source: EDC – GSMA Study
Interim approaches will be necessary to move forward

Barcodes

RFID Stickers

Voice Channel

Source: Margento
NFC offers unprecedented opportunities in payments as well as in ticketing, venue access, marketing and promotions, information access etc.

Multiple trials have provided very positive results

While NFC offers the right way forward there has been little progress in terms of roll outs beyond small pilots

There are key issues that will further delay the commercial deployment of NFC:

- Operator Business Case
- Handset availability
- Roll out of POS infrastructure
- Overall business model for all stakeholders

These issues are delaying the deployment of NFC. Some interim technologies have been suggested. However, for NFC to succeed – we need to go beyond trials – stakeholders should commit to rollouts