



## **M-payments**

A cross-industry perspective on  
the opportunities and challenges

A synopsis of a briefing and discussion  
8 November 2007, Booz & Co., London, UK

## Introduction

As a result of increasing discourse on m-payments amongst our clients, but little convergence of opinion, Booz & Co. convened a cross-industry discussion on the topic in London.





M-payments has re-appeared on the agenda of financial services, telecommunications and retail institutions. Following the failure of SMS/WAP in the late 90s, and other industry initiatives such as Simpay more recently, more encouraging technological and market successes have emerged. However, despite considerable success in selected markets in Africa with peer-to-peer payments, and in the Far East with proximity mobile payments, there is still no clear cross-industry consensus on the opportunities or challenges associated with m-payments. Too often the term m-payments is (mis-)used as a catch-all for a variety of industry efforts, and a common understanding has been elusive.

As a result of increasing discourse on m-payments within our clients, but little convergence of opinion, Booz & Co. held a cross-industry discussion on the topic in

London on Thursday 8 November 2007, to identify the key points of commonality and difference, and thereby seek to move the agenda forwards. This brochure provides a synopsis of the key discussion areas and insights arising from the meeting.

Participation was very broad with over 20 institutions represented, including banks, credit card issuers, telecommunications operators, handset providers, retailers, and payment and application service providers. The session was introduced by Booz & Co., a presentation on some of the innovations being piloted by France Telecom Orange was shared by Mr. Mung-Ki Woo, VP Payment & Contactless, France Telecom Orange – Group, and then a set of cross-industry round-table discussions were held and the discussion points captured, collated and shared.

## Context

M-payments has been a topic of discussion for some time now, however there are different views amongst players in the telecoms and the financial services spaces as to what the future holds.



“...we are looking at a very broad range of options but have not gone too deep into any yet...”

Bank executive



The range and scope of potential value propositions under consideration also poses a challenge to a convergence of views, given that these value propositions are very diverse in nature.

For telecom operators, m-payments will offer two key opportunities. The first is the enhancement of the value of mobile devices by the possible development of a wallet complement, enhancing standard payment schemes like credit/debit cards with real-time online services. Secondly, telecom operators will also work with financial institutions to develop secure environments for financial transactions. Acting on these opportunities will require a deep industry understanding and the identification of suitable partners.

For financial service players on the other hand, while the possibilities of m-payments have been discussed for some time, the opportunity still requires

clear definition. Having made significant investments in payment technologies and upgrades (EMV, VOCA/NewBACS, SEPA, TARGET 2, etc.), key players will need to be convinced of clear consumer demand and requirements before “creating another channel.” In addition the value add of the mobile handset as a credit/debit card “carrier” needs to be clear and tangible – most likely this will only work if offered as a comprehensive financial services package and not as a “virtual debit/credit card” alone.

**Key areas of discussion**

The issues and opportunities identified in the round table discussions fell into four areas:

1. The technology to be used
2. Value sharing amongst providers
3. Timing
4. Barriers to progression

**Scope of m-payments discussed**

		Description
Mobile		Mobile user accesses financial institution’s systems for accounting and brokerage services or financial information
Mobile Payment	Online Payment	Web/Application/Text based payment for goods or services offered on the internet
	POS Payment	Payment for goods or services at the POS, using NFC* e-enabled handset or text/application based solutions
	Mobile P2P (Person-to-Person)	Mobile user sends money to another person, whereby the mobile phone serves as primary enabling device on both sides
	Other, e.g. Mobile Ticketing	Payment for transportation tickets, which can be grouped into <ul style="list-style-type: none"> <li>• Manual price determination before start of journey</li> <li>• Automatic price calculation at the end of journey based on actual trip data</li> </ul>
Mobile Loyalty Programs (support for mobile payment)		Programs and applications enabling users to receive benefits via their mobile phone

\* NFC—Near Field Communication, standardized in ISO14443A/B and 18092. Source: Booz & Co.

“It is hard to see a positive NPV case for m-payments, unlike for the telcos, who should therefore share the value captured with other stakeholders.”

Bank executive



“...the opportunity is clearly with the banks, through customer service enhancement and retention, therefore a value transfer to the telcos is warranted.”

Telcommunications provider



**1. The technology to be used**

Depending on m-payment scenario it is still unclear what the likely technology will be for providing m-payments. Hardware- and software-enabled options exist as well as variations in the payment token, be it phone integrated, phone add-on, contact-less card, hybrid/multi or other. Trials are underway in Europe covering all of these possibilities and no industry standard is yet emerging. The consequence is that players are still in the “making bets” stage, primarily betting on Near-Field-Communication (NFC) for proximity payments with cards and mobiles.

**2. Value sharing amongst providers**

One particular area of difference between the industry participants was a view on where the value would be generated from the provision of m-payments. Whether or not customers/end users would pay

per transaction (as in Japan) or expect m-payments as a free additional service (as with internet banking), was unclear. Customer research indicates a level of surprise by end users as to why m-payments is not already available, and shows high levels of understanding and acceptance of the proposed offering. However, willingness to pay is far less clear, therefore some form of subsidy by banks, telcos and/or retailers is likely, in return for customer retention, network usage/contact frequency or other sources of value. This ecosystem challenge was perceived as the hardest obstacle to overcome by those present at the briefing, and potential ecosystem participants disputed the source of value creation. To some, it is up to the mobile operators to promote ecosystem players and convince stakeholders to join, as the operators are perceived to be the main beneficiaries, to others the onus lies with the banks.

**M-Payment enabling technology options**

Local: NFC	Remote: Software
<ul style="list-style-type: none"> <li>• Developed by Sony and Philips in 2002</li> <li>• Direct Communication between NFC-enabled devices (POS terminals, phones)</li> <li>• Short range contact-less transactions (max. 5-7cm)</li> <li>• Hardware-based security mechanisms</li> <li>• Multi-application feature</li> </ul> <p>Operating mode (illustrative)</p>	<p>Alternatives:</p> <ul style="list-style-type: none"> <li>• SMS/Text messaging</li> <li>• Accessing a payment application on the internet with a mobile browser</li> <li>• Mobile phone applications—downloading an application to your phone</li> </ul> <p>Operating mode (illustrative)</p>

“The path forward is not clear...who will pay for the terminals?”

Retailer



“...mobile banking should be fully operational by 2010.”

Bank executive



### 3. Timing

There were similarly many divergent views on the timing of a general and enduring m-payments offering in the (UK) market. The likely readiness of technology, acceptance at retailers, value (re-)distribution and customer critical mass were all to be overcome first, with one retailer stating “The path forward is not clear.” The general consensus was that a broad offering is at least three years away, but there were some optimists, including one bank executive confidently stating that “...mobile banking should be fully operational by 2010.” This is in line with some recent announcements of m-payments trials like the O<sub>2</sub> / Transport For London / VISA pilot, which create hope that the expected timeline might come forward significantly.

### 4. Barriers

Finally, some interesting perspectives were shared on the barriers to operations and delivery of a general m-payments offering. In addition to the issues of standards, cost, value transfer and acceptance, the major challenge appeared to be acceptance by retailers and “who will pay for the terminals.” Having just invested greatly in EMV terminals in the UK (and in many countries in Europe), there was very little appetite for another wave soon. But as banks bet on contactless cards independently from m-payments, the push for POS terminal upgrades might come automatically and m-payment schemes would piggy-back on these efforts. There were some additional key barriers raised, for example by application/service providers, raising a view that “... the lack of a common operating system on mobile handsets is a major deterrent to application development which will ultimately drive value.”

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Service provider

## Conclusion

Consumer take-up is widely perceived as the key driver in this market, and despite some positive test results, there remains a fair amount of scepticism about the future of the market.



“How do I make a payment if my mobile phone battery runs out? What are the provisions for security and fraud?”

Discussion participant



Unlike some countries such as Japan, Korea, Kenya and the Philippines, where proximity or peer-to-peer m-payment operations are in place, Europe appears to be lagging behind in driving a compelling and economic m-payment solution into the market. In selected countries such as France, where multi-lateral efforts between financial service firms, telcos, retailers and transport companies is driving the m-payments agenda forward, but the “jury is still out” in most countries such as UK.

Consumer take-up is widely perceived as the key driver in this market, and despite some positive test results, there remains a fair amount of scepticism about the future of the market. It was the belief from the banking community that a “killer application” would be required to drive the necessary scale in take-up and it was still unclear what that would turn out to be. As a result, many banking players are loath to invest quickly before the situation is clarified – it is not clear that the 2nd mover is going to be at that much of a disadvantage. However, given the limited number of operators, attractive deals between operators and banks are limited in nature.

Booz & Co. has been actively supporting clients globally and across industries with addressing technology, strategy and operational issues in the area of m-payments. We see two key pre-requisites for the m-payments market to move forward:

- Valid operating models need to be established between players that define ownership of customers, value-share arrangements and investment responsibilities.
- There needs to be an obvious and compelling consumer value proposition rather than an incremental improvement in convenience to generate sufficient consumer demand. Most likely this value proposition will not only consist of m-payment services alone, but combine payments with other banking transaction and information services as well as marketing offerings, which appeal to consumers, as they are tailored to the individual and will arrive just-in-time.

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In 1914 our founder Edwin Booz created the management consultancy profession.

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