Driving Mobile Payments and Ticketing with NFC Handsets

Description: Understanding the mobile payment and ticketing markets enabled through the use of NFC handsets, and the opportunities for equipment vendors, mobile operators, retailers and financial institutions.

The idea that mobile phones could become an extension of a person's wallet or purse has now become a reality. The industry has settled on the use of Near Field Communication (NFC) technology as the most suitable way of transforming mobile devices into a payment method. This allows for the development of proximity payment solutions, whereby mobile devices can be used in a similar fashion to other contactless payment methods. Examples of these include PayPass and PayWaves, contactless cards from, respectively, Visa and MasterCard. Transit operators, for example, can use handset-based proximity payments to achieve savings through a reduction in their operating costs. The processing cost of an electronic transaction is around 40% cheaper than that for a paper ticket.

This report examines the emergence of handset proximity payments and ticketing. It discusses the impact this will have on the mobile industry and identifies the ecosystem of players, which includes the financial companies, network operators, handset vendors, technology companies, transit authorities and the various standards bodies. The handset proximity strategies of selected companies are also reviewed. We believe, on the strength of trials and pilots conducted in 2007, that in 2008 device manufacturers will begin to ship NFC-enabled handsets in earnest. We forecast shipments to increase at a CAGR of 338% for the period 2008-2012, culminating in shipment of 504 million devices in 2012.

The author believes that a large proportion of passengers who travel with the major transit operators worldwide will adopt NFC handset-based ticketing services. The report concludes with a schedule for the author's view of likely timelines for the roll-out of NFC and handset payment systems, as well as providing forward looking recommendations for network operators, handset vendors and financial companies.

Topics of coverage include:

- The organisations behind NFC-enabled mobile payment systems
- Security considerations when protecting user transactions and data during contactless payments and other applications of NFC for mobile
- The prospects for Sony's FeliCa system, now that NFC devices appear to have won the standards battle for contactless payments
- The design options for integrating the proximity payment functionality into mobile handsets: SIMs, memory cards, or smart cards
- Means for controlling the interaction of proximity payment applications with other applications on the handset, and using the cellular data connection to interact with central payment systems
- Pros and cons and applicability – in terms of target user groups – of the main payment models for UFC-enabled mobile payment systems
- The ecosystem for NFC-enabled mobile payments, including company profiles of some of the leading solution providers, financial institutions, mobile operators, and device manufacturers
- Profiles of some of the leaders in mobile NFC payments, including: solutions providers, NFC chip manufacturers, financial institutions, mobile operators, and device manufacturers
- Recommendations on strategy for different players in the mobile NFC market.
- Revenue projections for mobile NFC-enabled payments from 2008-12, based on optimistic, pessimistic, and realistic scenarios

Answers and opinions are provided with respect to the following essential questions:

- What is the relationship between NFC payment technology and proprietary systems such as FeliCa
- Which two companies currently enjoy a 92% share of the global contactless technologies market
- What is the difference between 'active' and 'passive' ways in integrating proximity functions into a mobile handset?
- What new capabilities are enabled by allowing NFC applications to interact with other applications resident on the same handset?
- What are the billing options for settling handset-based proximity payment transactions?
- Which NFC solution providers have been most active in trials of NFC-enabled mobile payment technology?
- Who are the main company types in the value chain for NFC-enabled mobile payment systems?
- What are companies such as Nokia and Visa doing to address the emerging market for mobile NFC payments?
- Which mass transit operators are actively trialling NFC-enabled mobile ticketing applications?
- What are the business opportunities for using mobile NFC in the entertainment industry?

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