

Driving Mobile Payments and Ticketing with NFC Handsets



ARC CHART

SECTOR REPORT

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Jean-Pierre Aubertin
Lead Analyst

Matt Lewis, PhD
Research Director

ARCchart Ltd
27 Holywell Row
London EC2A 4JB
United Kingdom

Tel: +44 20 7456 9669
Fax: +4420 7456 9660
Email: service@arcchart.com

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Executive Summary

The functionality of mobile devices has changed significantly over the last few years. For many of us, they form an essential part of our daily life, and are hardly ever left behind intentionally. This has been recognised by the telecommunication and financial industries, leading to the development of the 'e-wallet' concept. The idea that mobile phones could become an extension of a person's wallet or purse, whereby it could be used to pay for goods and services, 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. American Express also has a contactless card called Express Pay, but they are not sure at present if they intend to make the application available to mobiles.

Proponents of handset-based proximity payments and ticketing are fast to elaborate on the advantages that such methods have over payment by cash, cheque, and even traditional credit and debit cards. These include faster transaction times and savings on the associated costs of processing non-proximity payment methods. It has been estimated that the cost of processing a cash payment for a paper-based transit ticket is \$0.10 per ticket, and that for a cash payment of \$25 it is around \$0.60. The cost of processing a traditional credit card transaction can be as high as 5% of the transaction value. Transit operators 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.

Numerous financial institutions, credit card issuers, mobile operators, and transit operators are in the process of conducting pilots and trials of handset-based proximity payments and transit ticketing. Several participants in those trials plan to launch commercial services towards the end of 2008 or beginning of 2009.

We believe that the number of mobile subscriber will continue to grow throughout the forecast period from a starting point of 3.2 billion subscribers in 2007, growing to 4.3 billion by the end of 2012. Likewise, handset shipments will also continue to grow because of increased demand in markets such as India and China. We predict that 1.6 billion handsets will ship in 2010, which during the period 2007 – 2012 will equate to a CAGR of 11.8%.

We believe that, on the strength of trials and pilots conducted in 2007, device manufacturers will begin to ship NFC-enabled handsets in earnest in 2008. We forecast shipments to increase at a CAGR of 143% for the period 2008-2012, culminating in shipment of 504 million devices in 2012.

Demand for NFC-enabled handsets will create a base of users corresponding to 24% of all mobile subscribers by 2012. This is going to result in a NFC subscriber base of 888 million.

ARCchart believes that a large proportion of passengers who travel with the major transit operators worldwide will adopt NFC handset-based ticketing services. This will be due to a desire among many commuters to combine the benefit of contactless payments with their existing proximity ticketing facilities. For instance, as of 2007, Transport for London reported that 75% of its passengers used its contactless Oyster card. It is anticipated that many of those passengers are going to switch over to NFC-enabled phones in order to combine the benefits of mobile payment and ticketing facilities. Furthermore, the introduction of NFC-enabled phones is going to attract additional passengers to use transit proximity ticketing facilities. This includes, for example, those who would not have been interested in card-based proximity ticketing, but who would appreciate the range of advantages associated with NFC-enabled phones.

The report concludes with a schedule for ARCchart's view of likely timelines for the rollout of NFC and handset payment systems, as well as providing forward-looking recommendations for network operators, handset vendors, and financial companies.

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ARCchart Ltd
27 Holywell Row
London EC2A 4JB
United Kingdom

Tel: +44 20 7456 9669
Fax: +4420 7456 9660
Email: service@arcchart.com