

Checkout the Mobile Payment Opportunity!

This whitepaper is an extract from:

**Mobile Payments for
Digital & Physical Goods
*Players, Markets & Opportunities, 2010-2014***



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I. Introduction

The definition of a mobile payment is often open to interpretation and can differ from source to source. Juniper Research has a simple definition of a mobile payment as **“payment for goods or services with a mobile device such as a phone, Personal Digital Assistant (PDA), or other such device.”** As is the case with other, older, payment schemes like cash, the current mobile payment market does not have a single, definitive, payment method and there is substantial variation between what particular scheme is adopted from region to region. Mobile payment schemes vary from the remote methods, such as PRSMS (Premium Rate SMS) schemes for paying for digital content dominating in Europe, to the physical, whereby, in regions such as the Far East & China, users take their mobile phone to the physical storefront to pay for goods via contactless credit/debit card schemes. There are many different and often competing categories of mobile payments currently available.

The distinction between the two main methods of mobile payment is based on the location of the mobile user in relation to the merchant:

- A remote mobile payment is when the storefront or retailer is remote to the mobile phone user, e.g. paying for digital goods by PRSMS (premium rate SMS) or physical goods via a mobile web enabled retailer.
- A POS (Point of Sale) or proximity mobile payment is when the storefront or retailer is physical and the user is located at or near to the storefront or retailer.

The user demand for convenient and intelligent ways in which to make payments for goods and services using a mobile phone is creating exciting opportunities for those organisations that are part of the mobile payment ecosystem. This white paper focuses on remote mobile payments which Juniper Research breaks into the following segments:

- Remote Digital: this is defined as remote purchases of digital goods and services via a mobile device, which is also the point of delivery. Examples include music (ringtones), SMS/bar code tickets and games, with prices typically between a few cents and \$20.
- Remote Physical: this is defined as remote purchases of physical goods and services via a mobile device – examples could include almost any consumer items from clothing to electronics equipment to books and CDs. Payment is usually handled via credit card and basket sizes are typically much larger than for remote digital goods.

2. Payment Schemes: The Big Picture

The following table details the different types of mobile payment schemes in each segment. Whilst the classification is by no means definitive, it does provide a structure for organising and evaluating the numerous types of mobile payment schemes. In recognition of boundary issues, it is important to note that both service providers and payment schemes quite often straddle the categories shown here: the boundaries are blurring.

Table 1: Mobile Payment Classification

Mobile Payment Scheme	Description	Example Provider(s)
Payment to mobile phone bill	Run by operators & aimed at low value payments for mainly digital content	Most Operators, Zong
Premium Rate SMS (PRSMS)	To pay for digital content & for interactive TV.	Content Providers such as Jamster & TV companies
Mobile web & WAP billing	Browser user interface with WAP/mobile web billing via credit card.	UK's PayForIt, Rakuten, Digby, Intuit
SMS/Java/SIM toolkit	SMS/Java/SIM toolkit based application using a pre-registered account and/or mobile wallet. Includes text-based transactions at the physical storefront or vending machine.	PayPal Mobile, LUUP, MobiVending, Telecom Italia Mobile
Person2Person (P2P)	SMS based transfer of funds between two mobile phones to redeem for cash or goods; can be also provided by mobile wallet or account based	Obopay, Globe Telecom and M-PESA
Smartphone App	Credit or debit card payment for downloadable apps & in-app billing	Apple iTunes, ngpay
Contactless	"Wave & Pay" scheme where phones are waved in front of reader, e.g. NFC or FeliCa	NTT DoCoMo, MasterCard PayPass, Maxis and Visa
In Store	Mobile wallet	Mocapay, Mozido

Source: Juniper Research

3. Remote Payment Schemes

3.1 Mobile Phone Bill – D2B (“direct to bill”) Payment

One of the simplest methods of paying for goods and services using a mobile phone is payment via a mobile phone bill. Operated by mobile phone operators, this is usually aimed at low-value micro-payments and is offered to account customers as an alternative to a credit card. Payment to mobile phone bill is generally initiated by an SMS (Short Message Service) - usually a PRSMS (Premium Rate SMS) text. Some vendors such as Bango have rolled out a web front end platform to interface with the user, even if there is a PRSMS or other payment scheme “underneath”. This results in a blurring of the schemes, and quite often one service can offer more than one scheme.

Typically the transaction is much simpler than a PRSMS payment and involves the following steps for users:

- The user discovers mobile content or services and chooses to buy
- The user is then redirected to the MNO site with the purchase transaction information, the transaction is authenticated and given advice of the charge
- The MNO checks the account whilst the user is then redirected back to the merchant with the authentication
- The content is delivered to the user
- The merchant confirms the purchase
- The user's phone account is debited.

3.2 PRSMS (Premium Rate SMS)

PRSMS is an mPayment method where merchants and retailers can offer services via SMS and for each SMS sent by the consumer, a premium rate is charged. Each party (the merchant and the operator) takes a share of the revenue from the messages, which is charged to the consumer on the mobile phone bill. With PRSMS, the payment can be made in one of two modes, either using MT (Mobile Terminated) or MO (Mobile Originated).

PRSMS has been the dominant mobile payment method and is geared up towards purchase of digital goods, such as ringtones, wallpaper and games and physical goods from mobile web enabled mCommerce sites. With digital goods, the digital item is downloaded to the phone and the payment is usually managed by the operator (either direct to bill for subscribers or removed from the stored value in the case of prepaid users). As it is simple to use with no payment application to download, PRSMS has proved popular and dominates the current mobile payment world in terms of transaction volumes and total number of users, with as much as 90+% of the market. This payment mechanism is being used to pay for a variety of digital goods and entertainment services, including TV voting for contestants in game and reality TV shows, such as American Idol and Big Brother, and competitions on radio and TV.

3.3 Mobile Web & WAP Billing



Online payment for the mobile web is a payment method that enables retailers to bill goods or services from a mobile web or a web site. This is very similar to payment on standard eCommerce sites and usually allows consumers to pay via a variety of payment mechanisms that may not be unique to mCommerce – usually credit or debit card. Richer content such as gaming, music, and video is better paid for over the mobile web simply because of the ability to have previews before purchase, and because of the assurance of delivery.

3.4 SMS/Java/SIM Toolkit



SMS payments, excluding those under the banner of PRSMS, are when the mobile payment is initiated using SMS and the funds are transferred from a registered account or a mobile wallet. The registered account could be debit or credit based or be based on a SVA (Stored Value Account). Scheme operators

include PayPal Mobile (owned by eBay), and SmartPay in China. Java applications and SIM toolkits can also deliver this functionality.

There is a wide range of applications and services that fall into this category. The common denominator across the applications and services is that they use SMS as the messaging technology to deliver the payment transaction, to receive the payment acknowledgment and for the exchange of service information.

3.5 P2P (Person-to-Person) Payment



Another example of a remote mobile payment is P2P (Person-to-Person) payment. P2P payments are when funds are transferred between mobile phone users and then the funds are redeemed for airtime, goods or cash at selected merchants. P2P is seen as a social money payment mechanism in the developed world: for instance, to allow a group of friends to share payment for dinner at a restaurant or for parents to send funds to a child at college to pay for school books etc. In the developing world P2P has considerable potential to act as a major payment method as often there is a lack of traditional payment and banking infrastructure in these economies.

3.6 Smartphone Apps



There is no shortage of examples in this category, right from paying by credit card at iTunes to download iPhone apps, through to apps resident on Smartphones that enable payment via credit card. With the growth of smart phones and the mobile web, many companies are developing their commerce applications for the iPhone, Android, Windows and BlackBerry Smartphones and for the mobile web. SBB Swiss Railways, for example, offers travel information, real-time information following an incident, “Take me Home” function with GPS, plus the ability to buy (via credit card) and display tickets for public transport services:

Figure 1: SBB Swiss Railways iPhone App

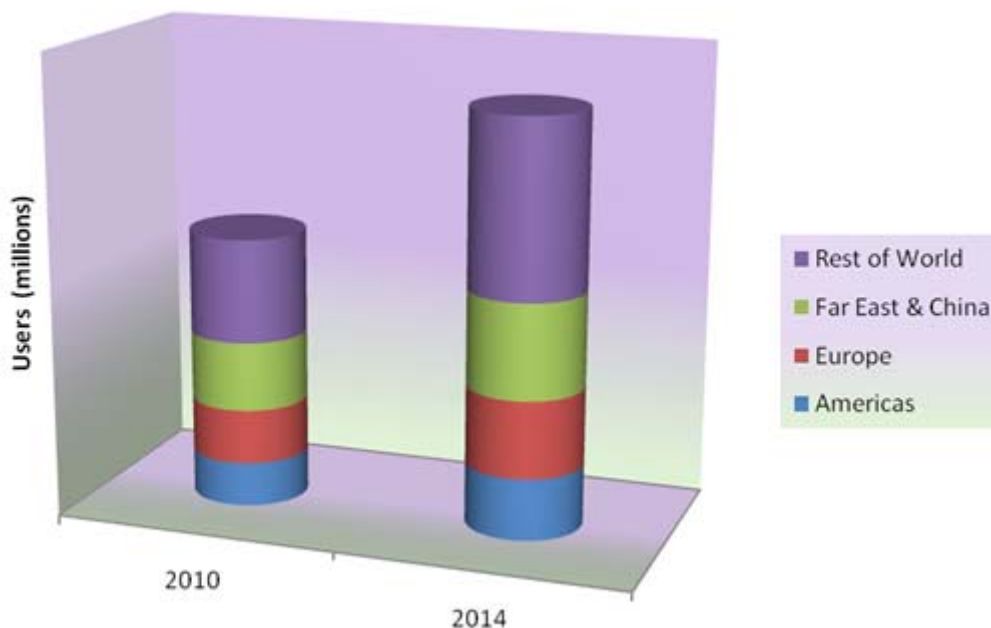


Source: SBB

4. Market Opportunity

The following figure provides Juniper Research's forecasts for total remote mobile payment users for digital goods. We are forecasting that total users worldwide will exceed 2.5 billion by 2014:

Figure 2: Global Remote mPayment Market: Users (millions) Split by Key Regions 2010 & 2014



Source: Juniper Research

Order the Full Report

Mobile Payments for Digital & Physical Goods: Players, Markets & Opportunities 2010 - 2014

This whitepaper is taken from Juniper Research's report entitled "Mobile Payments for Digital & Physical Goods: Players, Markets & Opportunities 2010 - 2014".

This global market sizing report focuses on two major sectors within the mobile payments industry: digital goods payments (mobile entertainment such as a music track and SMS/barcode ticketing) and physical goods payments (mobile purchase of almost any consumer product such as a book or DVD).

Within two extensive forecasting suites, the number of digital mobile payments users along with digital mPayments traffic and transaction value are all projected over the next five years. Gross merchandise sales vales (GMS) are forecast for the total digital and physical goods market.

The report examines a number of key drivers for the digital and physical goods payments market such as the spread in the developing world of money transfer providers partnering with digital and physical goods providers. It also identifies a number of constraints for the market including the impact of poor user experience when using an mPayment service.

Key Questions answered by this report:

- How many mobile subscribers will make remote mobile payments over the next five years?
- Which will be the leading regions in the market in 2014?
- What will be the size of remote mobile payment transaction values?
- What are the trends, drivers and constraints affecting the development of the market?
- How are leading sellers of physical goods developing their mobile payment capabilities?
- What will be the trends in digital goods transactions over the next five years?

For more details on this report visit the website www.juniperresearch.com or phone +44 (0)1256 830002.

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About the Author

Howard Wilcox is a Senior Analyst with Juniper Research, and author of the Mobile Commerce Markets series of reports which includes *Mobile Ticketing Applications and Markets*, *NFC Mobile Payments & Marketing Opportunities*, *Mobile Money Transfer and Remittances*, and *Mobile Payments Strategies and Markets*, along with the Mobile Technologies reports series. He is frequently interviewed by industry journals in both the mobile and finance sectors, and by the national and broadcast media including the BBC.

Mr Wilcox has over twenty five years' experience in the Telecommunications sector, and has extensive experience of analysing markets, vendors and service providers in the telecoms networks marketplace.

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For more information, please contact:

Michele Ince, General Manager michele.ince@juniperresearch.com

Juniper Research Limited, Church Cottage House, Church Square, Basingstoke, Hampshire RG21 7QW UK

Tel: +44 (0)1256 830002/475656

Fax: +44(0)1256 830093

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