

SCRIPT-ed

Volume 1, Issue 2, June 2004

Editorial

Mobile payment systems - A research project

The coming of age of electronic commerce in the last four years has prompted an increase in the development of new electronic payment systems, ranging from intermediary sites like [PayPal](#) and [Nochex](#) to the promise of the rollout of electronic money. At the same time, the mobile phone revolution has also swept the world. For example, handset sales for the last quarter of 2003 amounted to a staggering [132.8 million](#) units around the world.

The rise of the mobile phone has prompted the emergence of a new type of electronic commerce, generally referred to as mobile commerce, or m-commerce. [Some commentators](#) define m-commerce merely as the access through the internet via a mobile device, such as a mobile phone or a PDA. However, this definition does not appear to recognise the increasing convergence of media that is taking place in the mobile market. A much wider definition of m-commerce should ensue. Mobile commerce then is all sorts of commercial transactions undertaken with an electronic mobile device. The potential for such a market is tremendous. Although estimates vary, most market researchers agree that mobile commerce will exceed \$20 billion USD by [2005](#).

One of the most exciting possibilities for m-commerce is the eventual use of mobile phones themselves to purchase goods, services and content directly from authorised providers. The easiest way of performing these purchases is to use the existing security technology embedded in every mobile phone in order to ensure that the

transaction is secure. All mobile phones have a Subscriber Identity Module (SIM) card that allows the user some limited security, as each SIM card contains a unique identifier. The other feature of mobile phones is that a considerable number of users have an account with the service provider that is paid at the end of each month. The combination of security and an existing account allows mobile service providers and vendors to be able to sell content to mobile phone owners, a market that is growing at increasing rate. The most popular form of purchase through existing accounts is that of ringtones, which can be downloaded directly to the handset for immediate use, and the cost is charged at the end of the month with the phone bill. The same goes for all other types of content, such as backgrounds and games. This type of M-commerce has seen tremendous growth in recent years, with ringtones overtaking music single sales in [2003](#).

Content is the present of M-commerce, but the future is the use of the technology to purchase all sorts of goods and services with mobile handsets. An example of this novel approach is [Simpay](#), a new account-based payment system that is set to explode in the European mobile telephone scene. The company is part of the Mobile Payments Services Association (MPSA), founded by Orange, Telefónica Móviles, T-Mobile and Vodafone, the four major European mobile networks. Simpay is attempting to bank on the popularity of mobile phones in Europe by providing the built-in identification and security technology of mobile phones to pay for goods and services. The idea is to have a method to perform small transactions that would usually be too small for the efficient use of a credit or debit card. These [micro-payments](#) could be used to purchase individual music files, movie and parking tickets, and other spur-of-the-moment goods. The customer enters into a transaction with an authorised provider through their mobile phone by the use of SMS messaging or WAP interfaces. The charge then appears on the user's phone bill, which is paid at the end of the month with the other mobile phone charges.

When electronic commerce was in its early stages, legal experts started exploring whether the law was adequately prepared to accommodate new methods of conducting commercial transactions through electronic means. These questions prompted the enactment of new legislation to respond to the challenges posed by new technologies. The emergence of m-commerce is likely to prompt similar questions, as the use of mobile devices provokes a number of questions requiring prompt reply from legislators, regulators and other policy makers. Some of the questions are:

- What is the legal status of mobile payment systems?
- Should they be regulated, and if so, do existing regulations adequately cover them?
- Would mobile payment systems be similar to credit agreements?
- Could a mobile system be more like electronic money in accordance with the [E-money Directive](#)?
- What happens if the mobile is lost or stolen?
- Who will be liable for fraudulent use of the phone to make purchases without the permission of the user?
- Should manufacturers ensure the security of the transactions?
- What if the built-in protection is broken or hacked into?

- Can minors make transactions with their phones?

The emergence of mobile payment systems has not gone unnoticed in Brussels. The European Commission already has expressed concern about the possible legal void in this area. They have recently expressed that:

“However, payment services do exist, which may be regarded as not being covered by the E-Money Directive and which could have a potential to become EU-wide schemes in fulfilling some payment needs, such as micro payments in the internet or in wireless communication services. Some payment products on the market, such as mobile operator accounts and virtual accounts, are closer to credit transfers in a centralised account system than real bearer instruments.”

The perceived lack of legislation in this area has prompted the Commission to launch a [consultation](#) about the state of mobile payment operators and their role within the existing electronic money regime.

It is within this context that the AHRB Centre is conducting a research project to try to answer some of the most pressing questions about m-commerce payment mechanisms. We will be conducting a meeting (yet unscheduled) with stakeholders and experts that will first explore the possible legal implications of these novel payment methods. The research will produce a policy paper highlighting the results. If you would like to participate in this research, or if you have any feedback about the direction that the research should take, please do not hesitate to [contact us](#).

Andrés Guadamuz
Co-director

DOI: 10.2966/scrip.010204.227

© Andrés Guadamuz 2004. This work is licensed through [SCRIPT-ed Open Licence \(SOL\)](#).