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Comment

Mobile payments: Current and emerging regulatory and contracting issues

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ABSTRACT

Sitting at the heart of m-commerce and at the intersection of the value chains of the payments, mobile, retail and technology industries, mobile payments are set to grow rapidly in the short and medium terms. M-payments are giving rise to the development of a new ecosystem of market participants including card schemes, MNOs, retailers, device suppliers, service providers and trusted service managers. Key regulatory considerations arising include e- money and payment services, mobile services regulation, consumer protection, data privacy and standards. The contractual landscape linking the various parties inhabiting the ecosystem is also rapidly developing, with key issues around revenue models, customer ownership, technology development, and risk and liability. Parties involved in mobile payments will need to carefully assess their and others' roles and regulatory aspects in determining their strategy and how to approach contractual discussions.

1. Introduction

At the epicentre of mobile commerce, mobile payments are currently at an inflection point. Innovation in this area, where the four value chains of the payments, mobile, retail and technology industries intersect, is the object of significant investment by the smartphone industry; and new ecosystems of market participants – card schemes, mobile operators, retailers, device suppliers and service integrators – and new regulatory and contractual landscapes are fast developing.

The pace of change is demonstrated by announcements since summer 2012. A group of large US retailers including Wal-Mart, Target, Sears and Best Buy announced **MCX** (the Merchant Customer Exchange) as the 'comprehensive payment option' in mid-August; **Project Oscar**, the UK B2B mobile wallet, marketing and analytics joint venture between Everything Everywhere, O2 and Vodafone, was cleared by DG Comp in Brussels on 5 September; **Quick Tap**, the NFC (near field communication) deal between O2 and Barclaycard was also announced on 5 September; **Square** was valued at $3.25 bn on raising $200 m in mid-September; and **Apple Passbook**, the 2D barcode display app, was released with iOS 6 on 19 September.

2. M-payments and m-commerce

'Zap, tap and go', a recent analysis piece in the FT spoke of 'the allure of the smartphone as a central part of business explaining why companies are backing mobile payments'. Fundamental to this analysis is that whilst m-payments are at the centre of mobile commerce, m-commerce is much more than mobile e-commerce. This is because m-commerce brings supply closer to the demand creation point through use of the mobile phone's unique features – like LBS (location based services), voice control, camera, complete availability, constant Internet connectivity and QR (quick response). E-commerce extended buying from the shop and mail order catalogue to the PC and laptop at home, enabling tickets and digital content to be fulfilled directly to the desk. M-commerce carries this evolution further still by

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making the smartphone the point where demand is created and supply fulfilled outside the home, workplace and shop.

Although the take up of individual m-commerce applications – shopping apps, social commerce, location based commerce, price comparison, daily deals and quick response – is increasing rapidly; few of these apps interconnect well today. M-payments sits naturally at the centre of this ecosystem with an ability to unify and turbocharge adoption. To put this into current context, total UK weekly retail sales averaged £6.6 bn in summer 2012 (marginally up from £6.4 bn a year earlier); of this, e-retail accounted for 8% (£0.5 bn, up 14% from £0.44 bn in July 2011); of this, m-retail accounted for 8% (or 0.64% of total retail) – and at £40 m this was over 300% up from £12 m a year earlier. Research group IMRG predicts that m-retail will jump to 20% of e-retail by the end of 2012, with total m-commerce sales forecast to grow at 50% CAGR over the next 5 years.[1]

There is still a long way to go however as mobile shoppers' high expectations are not currently being met: although mobile accounts for 8% of online retail sales, it accounts for 16% of online visits, with a rising 'bounce rate' – the percentage of users who visit the home page but nowhere else – up to 27% in 2012 from 23% in 2011. The position is further complicated as, whilst mobile payment solutions are starting to take hold, they are currently fragmented and at an early stage, a situation exacerbated by a large number of competing m-commerce platforms that will inevitably increase fragmentation in the short term.

3. The technology context

As ever in the technology space, there's a bit of terminology to become familiarised with before looking at the legal aspects. Here, the key terms are digital wallet, 2D barcode QR display apps, online wallet and mobile wallet.

The ***digital wallet*** consists of databases and software resident on the smartphone. The databases typically reside on a secure part of the SIM (subscriber identification module) known as the SIM secure element as the store of the user's shipping and billing addresses and identification, security and expiry date data for his or her credit cards and other payment methods. The software, also on the SIM, connects the SIM secure element to the payment and related applications, of which three are the most important.

First, 2D barcode (machine readable data representation) QR (quick response) ***display apps*** enable boarding cards, membership cards, tickets and coupons to be stored and read. A good example of this application, which is not true m-payment, is Apple Passbook released with iOS 6 in September 2012.

Next is the ***online wallet***, where the digital wallet is enabled for 'remote m-payments' – mobile internet transactions using the smartphone instead of the PC or laptop. Here, the user accesses pages or apps downloaded to the smartphone to make payment where a credit or debit card is generally required (unless the user's mobile account is debited directly). At the time of the first transaction, the user inputs the phone number to register; receives from the provider the PIN (personal identification number), typically by way of SMS (short message service); enters the PIN to authenticate; and then completes the entry of the remaining credit card, etc data. With later payments, the user re-enters his or her PIN to authenticate and validate payment.

Thirdly, the ***mobile wallet*** is the digital wallet enabled for 'proximity' or 'contactless' payments through NFC (near field communication) technology, a sets of standards for radio communication between the smartphone and the reader module nearby where the user waves the smartphone at the reader to complete the purchase, typically for buying in-store or transportation services.

4. Understanding the ecosystem

The ecosystem is complex because m-payments is where four value chains – payments, mobile retail, and technology – collide and each is currently vying for pole position for the race that is under way. Broadly, there are six sets of market participants to consider:

- card schemes (banks issuing credit/debit cards and card associations like Visa and MasterCard);
- mobile operators (whether as network – MNO – or virtual network – MVNO – operators);
- retailers (the businesses accepting payments by credit and debit cards, etc);
- device suppliers (smartphone and PoS (point of sale) device manufacturers) and SIM suppliers;
- service providers ('SPs', whether M[V]NO- or bank-centric) delivering the m-payment and related solutions; and
- a growing 'overlay' category of TSMs (trusted service managers) which manages the range of contractual and technical connections between the participants that is necessary to enable m-payments to happen.

Looking at the ecosystem gives a framework for analysing both how regulation applies to m-payments and also how to get to the right balance of benefits and obligations, risks and rewards in contract structuring, preparation and negotiations. In any particular case, regulatory and contract structuring will depend on where and how each of the participants fits into the ecosystem.

5. The regulatory landscape

The good news is that m-payments do not have a specific set of regulations. The not so good news is that regulation is pervasive and deeply layered, broadly according to the 'payments – mobile – retail – technology' set of intersecting value chains mentioned above.

5.1. *Payments regulation: electronic money and payment services*

5.1.1. *Electronic money*

e-money – sources of law: The main sources of law and guidance in the UK on e-money are the Electronic Money Regulations

[1] Sources for data in this paragraph: ONS; IMRG Capgemini Index; GP Bullhound.