

me reports



Mobile Payments 2011

How in-app billing, 'pay by mobile', NFC and more are combining to revolutionise the m-commerce space

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Introduction

After nearly ten years, the mobile payments space has reached a tipping point. Mobile payments used to mean one thing – using the phone bill to pay for digital content like ringtones or games, first through reverse-billed SMS and then via the operator bill.

But in the last 18 months it's been transformed in three ways.

First, new companies have enabled a 'pay by mobile' option to give e-commerce users the chance to charge digital items direct to their phone bill. This has opened up the market for virtual items, ebooks, music tracks and more to the vast number of users who either don't have or don't want to use a credit card to make the payment.

Second, the mobile handset has become a channel through which giant companies like PayPal and Mastercard can enable transactions by their account holders. This has been a consequence of the app revolution. It's painful to use SMS to access your credit card account. But an app that requests a simple pin and relies on 'touch and sweep' provides a much more compelling user experience.

Third, the prospect of using mobile to pay for physical goods has been opened up by technology such as NFC, the Square plug-in and 'bump'. These contactless technologies turn the phone into a virtual wallet that can be topped up and then used to pay for low ticket items like refreshments, transport fares and so on.

Suddenly the world is all over mobile payments. Even Google and Apple are rumoured to be planning an assault. But it's a bewildering sector, with so many competing technologies and business models.

In this report, we will provide a clear path through this exciting space.



Tim Green, Executive Editor, Mobile Entertainment
Tim.Green@intentmedia.co.uk

A brief history: from SMS to operator billing

The mobile phone wasn't conceived as a payments channel. But when 'mobile consumables' like ringtones appeared, it quickly became one...

The mobile payments bandwagon started rolling in the early 90s when the first downloadable mobile products were born. In the absence of anything better, these ringtones, wallpapers and games were charged using 'premium rate reverse-billed SMS'.

That trips of the tongue, doesn't it?

It wasn't just a hassle to say. In this process, the consumer would send a payment request via an SMS text message to a short code and a text (or many texts) would be received back carrying a premium charge that was applied to their phone bill. The merchant involved was informed of the payment completion and then released the purchased goods.

The system worked. But it was deeply unsatisfying for the following reasons:

- Reliability. Messages would fail leaving the consumer unsure whom to appeal to for a refund.
- Slowness. It could take hours for a merchant to get receipt of payment.
- High costs. The merchant would have to buy short codes, pay for the delivery of messages and customer care issues.
- Punitive rev shares. Notoriously, operators charged between 30 and 50 per cent for delivering SMS messages.
- No flexibility on prices. Texts need to charge in round numbers, and have an upper limit. This made it impossible to charge 'irregular' prices and often entailed more than one text to be sent for payment.
- Negligible customer data. Once the payment message was sent, there was little the customer could do to share their experience, forward to another user or continue their dialogue with the provider.

Premium SMS couldn't last forever. It was clunky, and it became forever tainted by association with the ringtone scams of the mid-noughties. But for a while, before anything better was around, it supported a market worth around £400m in the UK alone.

Operator billing

The inevitable second wave of mobile payments came when premium reverse-billed SMS was replaced by operator billing. Sounds straightforward enough. It wasn't...

The obvious replacement for premium SMS was operator or WAP billing. Here, the consumer would pay for mobile downloadable goods via a mobile web page. Clicking on 'pay' would deduct the fee straight from the phone bill with (in principle) one click. It used WAP as the underlying technology and thus inherited all the advantages and disadvantages of the protocol.

Using a web payment model that felt like online precedents such as PayPal gave a number of proven benefits:

- High customer satisfaction from quick and predictable payments.
- Ease of use from a familiar set of online payment pages.
- Follow-on sales from the same site or those linked to it.

Of course, it was always possible for payment providers like PayPal to use the mobile web for payments. But the need to type in passwords and so on made this an unsatisfactory process – especially in a world before apps, smartphones and 3.5G.

So for this reason the only realistic option for mobile web billing was the operator. Why? Because in theory, the phone can recognise the user and thus simplify the ID and security measures that always hamstrung the credit card issuers.

Thus, a direct connection to the operator billing platform provides a number of benefits:

1. Simplicity for users. The operators already have a billing relationship with the consumers, so the payment will be added to their bill.
2. Instantaneous payments to the merchant.
3. Better information on failed transactions (no credit for example).
4. Security to protect payment details and consumer identity.
5. No need to enter any further payment details.
6. Reduced customer support costs for merchants since customers complain to the operator.

That’s the theory, of course. In reality, WAP billing has struggled to fulfill its potential, mostly because of a lack of shared systems by different operators (meaning the aggregator has to support multiple channels), but also because of poor promotion and presentation.

Historically, though, the main hurdle to the adoption of mobile billing has been the revenue shares charged by the operators. Here’s how they compare:

Channel	Share to content provider
Paypal	92 per cent
Credit Card	84 to 86 per cent
Operator billing	Between 50 and 70 per cent

There are some current stats on operator rev shares at <http://fortumo.co.uk/services/start>

Payforit

Operator billing works best when all a country’s networks team up to support the same system. This kind of co-operation was pioneered in the UK, through ‘Payforit’. But not without some criticism...

One of the early issues with operator billing was the need for merchants to have different accounts with different operators. Far better to have a single system that pulls in all operators. That was the thinking behind Payforit in the UK – possibly the first such set-up in the world, although systems like Gallery (France), Dimo (Portugal) and PlazZa (Belgium) emerged around the same time.

It was launched in 2007, and supported by around a dozen intermediaries, each of which processed payments with a given operator when a user paid for a digital product on a mobile WAP site.

Payforit hasn’t been without criticism. There were complaints about the scale of the fees charged, the revenue shares and mostly the lack of promotion given to the concept. This meant that when willing consumers clicked ‘pay’ they were sent to a Payforit landing page without realising what it was. This confused users and led to many abandoned payments.

Over time, Payforit has been improved. In 2010, version 3.0 introduced a smoother graphical flow and a clearer three-step mobile purchasing process. However, the bigger issue for Payforit was its eclipse by other forms of payment in the app era. Basically, as soon as the iTunes App Store showed a simpler way to pay, consumers accepted using a credit card linked to their handset maker. Either that or they began downloading a free product and then using in-app billing to buy virtual items. Self-evidently these would be bought without leaving the app.

Mobile payments aggregators

The emergence of the mobile payments channel prompted the emergence of specialist intermediaries. These firms process the payments and assign revenues to the merchant and the multiple operators. Here’s a list of the most prominent...

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|--------------------------|------------------|
| 2ergo | Txtnation |
| Bango | Zamano |
| Dialogue Communications | ChargeAnywhere |
| Ericsson IPX | Mobile Messenger |
| 24GMedia | Mach |
| ImpulsePay | Valista |
| mBlox | Aepona |
| Mobile Interactive Group | Paybox |
| Sybase365 | Fortumo |
| OpenMarket | |
| Netsize | |
| Net-Mobile | |
| Tanla Mobile | |
| Oxygen8 Communications | |
| WIN | |