
UK Direct WAP Billing

for the Mobile Internet In Association with PayFort



© 2007 mBlox Inc.

May not be reproduced or released without the written consent of mBlox Inc. mBlox is a registered trademark of mBlox Inc.

All other brand and product names are trademarks of their respective owners. **V070816**



CONTENTS

| | |
|--|----------|
| 1. Introduction | 1 |
| 2. Mobile Content: Moving from SMS to WAP | 2 |
| 3. PayForIt Mobile Payment Mechanism | 3 |
| Trusted Mobile Payment Framework | |
| 4. The mBlox WAP Billing Solution | 5 |
| 5. The mBlox WAP Billing Benefits | 7 |
| Revenue Protection and Pricing Flexibility | |
| WAP Billing Enhancements through MSISDN Aliasing | |
| Improvements in Customer Care | |
| Increased Revenue by Enhanced CRM | |
| Enhanced End User Billing | |
| Improved Reputation | |
| Age Verification to Support Restricted Services | |
| 6. Conclusion | 9 |

1. Introduction

The number of mobile users accessing the Internet on handsets is rising rapidly. In the UK, the recorded total number of such users in July 2006 was 13 million. By September 2006 that number had increased to 14 million.

Increasingly tech-savvy, mobile users expect their handsets to provide more and more features and flexibility, as well as desktop handiness on the move. Key features such as mobile e-mail and mobile web browsing are gaining popularity as they become easier to use and offer improved download speeds and connectivity. And Mobile Internet users aren't merely downloading ringtones and games, either. Some are using handsets to do such things as find train times. As the MDA recently reported, Google topped the list of sites most accessed by mobile users, followed closely by chat sites.

The growth of this Mobile Internet is giving rise to vast commercial opportunity. With a potential client base of 14 million and climbing, it is surely a commercial investment opportunity worth pursuing.

This paper discusses direct billing for mobile content in the WAP environment. The focus is on a new WAP billing system from mBlox, in association with the PayFort industry joint initiative.

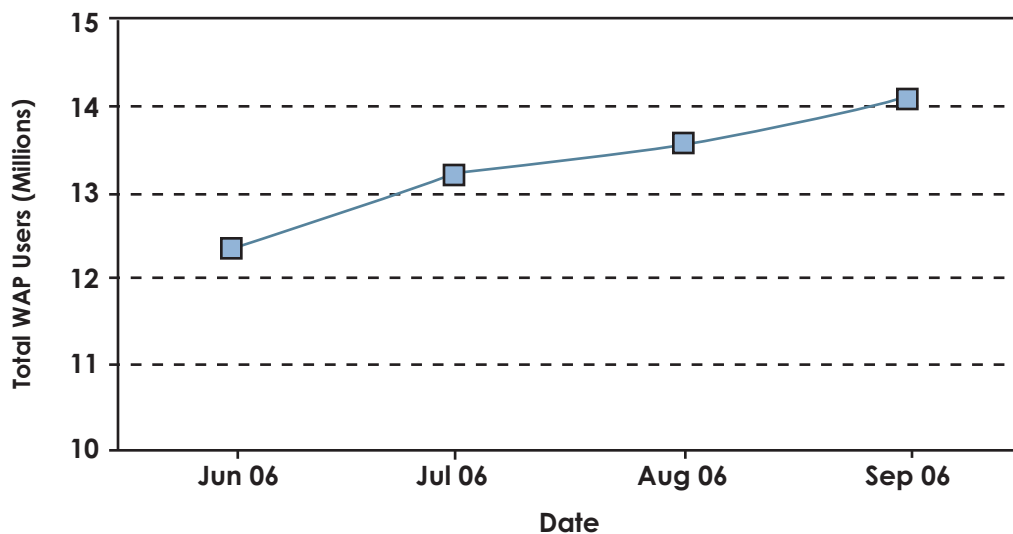


Figure 1: Total number of WAP users in the UK, Q3 2006. (Source: MDA)

2. Mobile Content: Moving from SMS to WAP

The Wireless Application Protocol, or WAP, is a major driving force in the growth of the Mobile Internet — even though its ascendancy has been somewhat uneven. Launched in 1999, WAP got off to a less than ideal start, plagued by high latency, low data rates, and a poor user experience. For years it had only a limited impact on mobile content.

Short Message Service, or SMS, was the real star. It has been driving the growth of mobile services since the early 1990s, when digital mobile handsets were first introduced. Today, SMS accounts for approximately 10-15% of mobile operators' total revenues, providing both a compelling form of communication and a means of mobile content delivery.

This dramatic performance by text messaging has somewhat masked growth in the use of browsers (WAP and Internet) on mobile handsets. Today, consumers have embraced WAP as a critical tool, and mobile browsing via WAP is trending upward quickly due to a number of compelling reasons:

- The consumer experience with handsets has vastly improved thanks to color screens, better resolution, and faster data connections
- The widespread use of WAP push to send URLs to handsets has overcome the barrier of keying in addresses, taking users directly to exciting content
- Driven by new features in handsets, consumer demand for MP3 files, video clips, and other multimedia content is overcoming any resistance to delivery technology
- All major UK operators — Vodafone Live, Orange World, O2 Active, T-Zones and 3 — now run WAP mobile content portals

The result, currently, is more than 2 billion page impressions per month, indicating that WAP has finally come of age as a fundamental part of mobile communications. The impact on mobile content is proving to be profound. All four stages of the purchase cycle — discovery, ordering, billing and delivery — are in flux.

3. PayForIt Mobile Payment Mechanism

Until recently, making purchases on the Mobile Internet has been limited and not a user-friendly experience. Now, however, there is PayForIt.

A joint initiative involving all five UK networks, PayForIt provides a consistent and trusted mobile payment mechanism, enabled through Accredited Payment Intermediaries (APIs), that will be instantly recognizable and trusted by consumers.

The PayForIt framework ensures that consumers receive a consistent, uncomplicated payment experience when making WAP purchases, and gives merchants the ability to bill consumers directly for their off-portal WAP-accessed purchases.

The process is straightforward. While browsing a merchant WAP pages, once a consumer decides to buy content or subscribe to a service, they are then forwarded to a transaction panel — a WAP page — managed by an API, such as mBlox, to confirm the purchase. In the background, the API performs the billing requests via the relevant operator's billing gateway. Once billing is confirmed, consumers are redirected back to the merchant's WAP page. Charges will appear on their next mobile phone bill.

This decoupling of the billing from the delivery of a service is called "bearer-independent billing." The benefits are numerous. For example, the world of mobile billing opens up to those product and service providers who may be unfamiliar with the intricacies of Premium messaging, thereby instantly increasing the addressable market size. Additionally, this next-generation billing process provides a greater level of service flexibility and offers the consumer increased security.

The initial roll-out of PayForIt is focused on the purchase of content and subscriptions to services. Later versions of PayForIt will allow handset users to make virtually any kind of payments including via the web. Industry observers believe that, as trust in the PayForIt brand grows and appreciation for its simplicity spreads, content usage is likely to increase and customer care issues are likely to decrease.

Trusted Mobile Payment Framework

The PayForIt scheme is governed by a strict set of rules known as “The Trusted Mobile Payment Framework,” which outlines how participants — merchants, accredited payment intermediaries and operators — co-operate to perform.

These rules protect consumers by ensuring that crucial purchase interactions are not handled by any content provider, but instead by an API. Stringent and objective tests for accreditation have been put in place. Companies will no longer be permitted to process WAP or Mobile Internet billing transactions if they are not accredited. As such, PayForIt offers better consumer protection than existing methods of buying from a WAP page using Premium SMS.

As the world's largest mobile transaction network, mBlox is one of a handful of companies who have successfully achieved PayForIt accreditation.

4. The mBlox WAP Billing Solution

mBlox is deploying a carrier-grade payment processing platform to support the UK WAP-billing product. Customers will be provided with arguably the best payment platform available: the Valista PaymentPlus Platform, as used by Vodafone, France Telecom and NTT Docomo.

Connectivity is simple via the mBlox SOAP gateway. Trained mBlox personnel guide merchants through every aspect of service integration. As ever, mBlox seeks to deliver the most, manageable, robust and scalable product solution available.

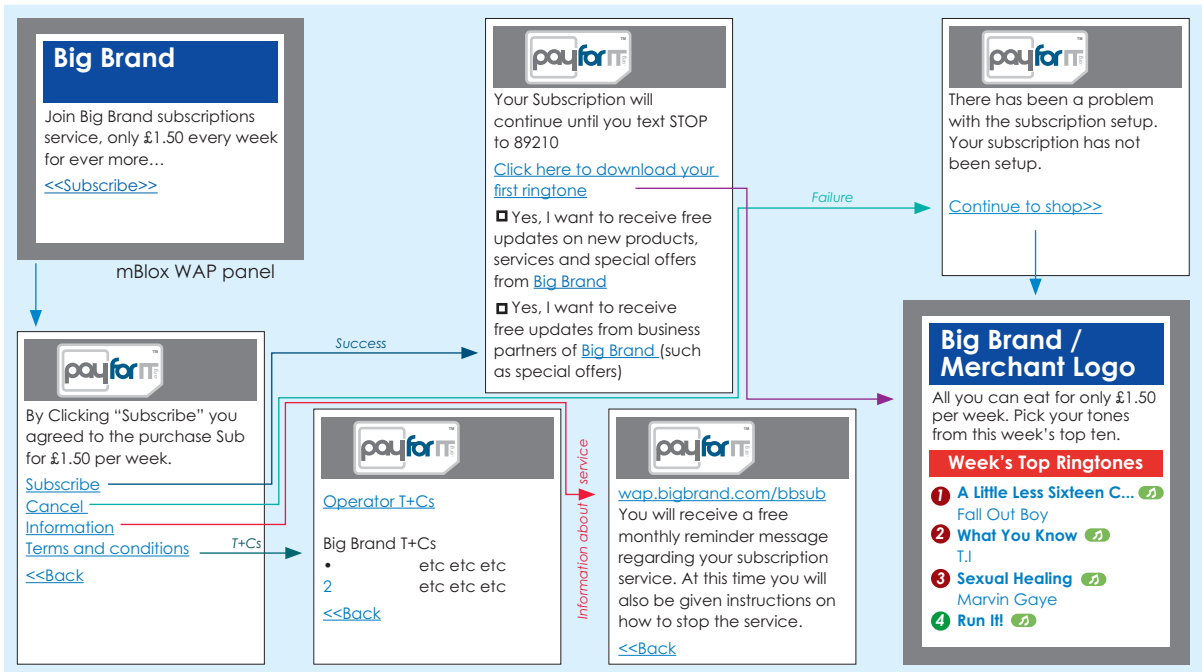


Figure 2 - mBlox WAP Billing UK (PayFort!)

How mBlox WAP Billing (PayFort!) Works

1. Consumers access merchants' WAP portals and are directed to the mBlox (Accredited Payment Intermediary) hosted Payment Panel.
2. Consumers are presented with the required PayFort! user screens and guided through the payment process.
3. Consumers are redirected back to the merchants' sites by the Accredited Intermediary.

The mBlox solution, in association with PayFort, is the next step in the future of mobile enterprise. The following services and capabilities are supported by mBlox WAP Billing:

- Increased Outpayments
- Improved payment conversion rates
- Consumer MSISDN pass-through
- MSISDN aliasing
- Age verification
- Subscription set-ups that don't require the consumer to send mobile-originated (MO) messages to the application
- Cross-operator coverage
- Subscription payments
- One-off transactions
- Enhanced Customer Care
- Seamless consumer refunding, where supported by the mobile operators

Under the PayFort scheme, mobile internet live billing requests can no longer be handled by content providers. Instead, these billing requests must be fulfilled by an API.

mBlox is working closely with operators and has integrated the PayFort functionality into its platform. As a trusted API, mBlox is offering clients the PayFort framework in the mBlox UK WAP Billing solution.

5. mBlox WAP Billing Benefits

In association with PayForIt, mBlox WAP Billing will help to boost consumer confidence in the Premium industry. mBlox WAP Billing benefits all elements in the Premium chain, standardizing and securing the consumer experience and providing a reliable interface between the merchant and the mobile networks.

Revenue Protection and Pricing Flexibility

With mBlox WAP Billing, the actual payment is processed *prior to* allowing the consumer access to the content download page. Thus, if the billing fails for any reason, no content can be downloaded. This results in cast-iron revenue share, leading to increased revenues at higher margins.

WAP Billing Enhancements through MSISDN Aliasing

Under the PayForIt scheme rules the passing of MSISDNs, in certain scenarios, is forbidden. Through understanding of Service Provider's requirements, mBlox has developed a market-leading solution to overcome this limitation.

Merchants need to be able to identify their consumers each time they re-enter the merchant's site.

Being able to identify returning browsers enables merchants to personalize WAP front-ends, based on previous site visits and purchases, and improve customer service, thereby enhancing the overall consumer experience and increasing the likelihood of them making a purchase.

Each time the consumer visits the merchant's WAP site, mBlox will identify them to the merchant via the MSISDN alias facility.

Once the consumer has purchased content or opted in to a subscription service, mBlox will un-mask the MSISDN and provide this to the merchant in lieu of the MSISDN alias.

Improvements in Customer Care

With mBlox WAP Billing, the simplified, transparent and informative purchasing process helps reduce consumer confusion and call volumes. These in turn can help reduce operational expenses.

Where supported by the mobile networks, mBlox WAP Billing can also facilitate direct consumer refunding — further promoting an enhanced consumer experience without the present day refund processing delays. This is a critical benefit, giving mBlox clients a real advantage.

The fact is, increased customer satisfaction has been proven to result in higher ARPUs and lower churn. Furthermore, higher successful billing ratios, higher spend and lower dissatisfaction all result in increased revenues and less resource tied up with customer care issues.

Increased Revenue by Enhanced CRM

In addition to promoting consumer confidence, mBlox will assist you in the creation of a user-focused experience that delivers a more streamlined transactional front end. Upon completion of a purchase, consumers can be directed back to the merchant's portal which, based on the initial consumer transaction, can be dynamically updated to provide an enhanced user experience. That is, the consumer can be directed to related content with the aim of promoting further purchases.

Repeat visitors can be shown tailored content based on past preferences and purchases.

Enhanced End User Billing

When consumers are making purchases on the Mobile Internet, mBlox WAP Billing draws on the flexibility of direct account billing to minimize interruptions in the process, simplify the whole experience and boost successful billing.

Improved Reputation

Offering PayForIt-compliant services through an accredited payment intermediary, such as mBlox, helps drive trust among consumers. By association, mBlox customers will be identified as forward-thinking market leaders and consumer-focused enterprises. Increased trustworthiness and consumer satisfaction will assist in promoting sustainable customer relationships and service longevity.

Age Verification to Support Restricted Services

Age Verification (AV) on WAP Billing has been set up so AV queries can be run against specific services.

In the current WAP environment, adult services would only be permitted on Vodafone, T-Mobile (Virgin) and 3, as these networks are able to manage consumer access to restricted/adult sites.

Through the redevelopment of existing functionality, mBlox has adapted the PSMS Age Verification service to enable WAP merchants to offer adult content on Orange and O2.

6. Conclusion

Growing use of the Mobile Internet presents an enormous commercial opportunity for merchants selling content. By transitioning from PSMS to direct-to-bill payments via WAP, consumer Premium purchasing over handsets will be greatly simplified and encouraged.

The PayForIt initiative ensures a consistent and uncomplicated payment mechanism that will be instantly recognizable and eminently trusted by consumers. As one of the first intermediaries to be accredited for processing PayForIt transactions, mBlox is deploying a carrier-grade payment processing platform in the UK that integrates the PayForIt functionality.

mBlox WAP Billing benefits all elements in the Premium chain — protecting and increasing revenues, improving customer care, enhancing CRM and the consumer billing process, and promoting trust and increased usage by consumers.