GLOBAL OPPORTUNITIES
FOR FINANCIAL INSTITUTIONS,
MOBILE OPERATORS + ENTERPRISES

Mobile Commerce Guide 2011

BY SYBASE,® AN SAP COMPANY

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001 Mobile Commerce Opportunity

083 Financial Institutions

107 Mobile Operators

147 Enterprises

Mobile Commerce Guide 2011

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Change is in the Air

By John S. Chen, Chairman + CEO, Sybase, an SAP Company

Remember when a mobile phone did only one thing—allow you to talk to someone?

Now these personal mobile devices are the force behind an intriguing mix of mCommerce services causing social and financial changes worldwide.

Mobile banking for the unbanked is becoming a welcome alternative in emerging regions. Mobile phone subscribers are receiving their paychecks or buying livestock, and some, for the first time, are saving for a better future. Entrepreneurs are launching small businesses, and wage earners are sending money to families in their home countries with real-time remittance services.

mCommerce is encouraging creativity in developed regions, as well. Subscribers are drawn to—and willing to pay for—the convenience that comes with mobile payments. Paying to park by phone is easier than finding a handful of change. Discounts and loyalty points stored on the phone are more convenient than paper coupons and plastic member cards. By interacting with customers via the mobile channel, enterprises and brands are learning more about their customers.

This guide is full of paradigm-shifting examples of mCommerce at work. For those who need and use the services that mCommerce has to offer, the benefits range from speeding up economies to life-changing improvements. For merchants, operators and banks, the new channel offers another way to grow business and revenues while meeting the financial needs of customers.

This guide also identifies the barriers to this new financial paradigm. Competition, technology, regulations and a resistance to change are slowing the speed of mCommerce developments. I hope that this guide will provide the insight needed to help all members of the mCommerce ecosystem better understand how to move this exciting market forward—and make mCommerce services as prevalent as the mobile phones they run on.

Realising the Full Potential of Mobile Commerce

ORCHESTRATING MOBILE PAYMENTS AND MONEY TRANSFERS.

From the age-old bartering system, to cash, to cheque to electronic forms of payments, people have found innovative and more efficient ways to make a payment. This evolution has resulted in a significant shift in the current mix of consumer payments: from primarily paper-based (cash or cheque) to increasingly electronic (e.g., credit, debit and pre-paid) payment methods. We view the use of the mobile phone as the next significant step in the evolution in the payments industry—representing another growth opportunity for existing players and new entrants.

By Edgar, Dunn + Company
Management Consultants

The mobile phone represents another growth opportunity for existing players and new entrants

The Mobile Commerce Opportunity

Mobile commerce is comprised of two categories, mobile banking and mobile payments and money transfers. Mobile banking refers to situations where the mobile phone is used as an access channel to financial services. Mobile payments and money transfers refers to situations where the mobile phone is used as a payment device to affect the transfer of value from one party to another.

Mobile banking has already gained traction and there has been rapid expansion in deployment of applications as well as an increase in the number of mobile banking users—particularly in developed countries. It essentially allows banking customers to check balances, transfer funds and receive alerts. Mobile banking provides ease, accessibility and convenience for customers, in addition to portability, security and enhanced functionality such as alerts to enable more proactive banking services.

Mobile Payments + Money Transfers

More interesting is how the mobile phone is being used beyond mobile banking to affect the transfer of value from one party to another. There is potential for enormous transaction volume that could be initiated via the mobile phone, and this transaction volume could translate into significant revenue opportunities for stakeholders. We believe that growth in this market will be driven by several key factors, including: growth in the number of mobile subscribers, the increasing versatility of the mobile device, continued rollout of contactless acceptance terminals, and breadth of income segments and geographic locations gaining access to mobile technology.

There have been various initiatives and/or developments throughout the globe that begin to set the foundation for larger-scale use and increased adoption. Mobile phones are delivering safe and stable payments and money transfer systems in countries that have highly developed mobile networks but lack a widespread banking infrastructure (e.g., Globe Telecom in the Philippines with its G-Cash offering).

There are different types of mobile payments based upon the reason why a payment is made:

Remote Mobile Payments refers to the purchase of services or physical/digital goods remotely using SMS text, browser-based wireless access protocol (WAP), or proprietary application capabilities of a mobile device. Remote mobile payments of digital content through mobile operators (for example, purchase of ring tones or digital content) are well established.

Mobile Top Up refers to adding minutes to a mobile prepaid account using a credit/debit card or cash at a store location via scratch card, point of sale, or kiosk. The mobile top up opportunity is significant in markets where the majority of mobile accounts are prepaid.

Person-to-Person (P2P) Remittances refers to the transfer of funds between subscribers via a mobile device and are commonly referred to as Mobile Money Transfers. Remittance providers, such as Western Union, enabled remote consumer-to-consumer payments by accepting cash at a physical location and electronically transferring funds to a recipient location (typically an affiliated agent) for a fee. The ability to initiate money transfers using messages sent with a mobile phone provides significant convenience as well as safety for individuals.

Mobile Bill Payment refers to the use of a mobile device to initiate the transfer of funds from a person to a business for purposes of paying a bill obligation. In developing countries, mobile bill payment represents a significant change. In these markets a person has to physically travel to make certain types of payments—for example, get on a bus with cash to pay their utility bill. In these markets, the mobile channel is forming the banking infrastructure.

Physical Mobile Payments refers to the purchase of goods or services using a mobile device at the point of sale through contactless technology—also known as "proximity payments." Consensus is being created around standards for near field communications (NFC).

A Fragmented Landscape
In general, mobile payments offerings are provided by organisations within two separate and distinct industries: payments and telecommunications. The market consists of payments players (traditional banks, payment brands and processors, and established non-banks) and mobile telecommunications players (mobile operators and start up technology providers).

Payments Players
Traditional banks typically provide a wide variety of electronic money movement services (but often with no specific segment-focus). These banks are interested in mobile banking, but are concerned that there is little opportunity to generate new revenue. They are interested in mobile payments, but are concerned about committing to any one method/technology too soon. A major concern of these traditional banks is that mobile payments will only serve to cannibalize existing electronic payments, and thus will not yield any incremental benefits despite substantial investment. In fact, they argue, mobile transactions may even increase the risk of fraud and financial loss to the bank, thereby increasing the cost of the migration.

Established payment brands have strong relationships with financial institutions and merchants. These brands, however, have historically had few dealings with mobile network operators. The networks are relatively neutral to a transaction coming through WAP or SMS and have little interest in very small dollar remote mobile payments. However, they are concerned about the potential of mobile networks disintermediating their traditional fixed-line networks. Their key objective is to ensure that, in the mobile world, financial institutions' value propositions are maintained and that the security requirements relating to payment cards are fully complied with.

Established non-banks have the lion's share of the market in their niches (especially P2P remittances). They demonstrate good product innovation, pricing ability for services, and have a strong first-to-market mover advantage. They normally partner with banks (or enter into banking themselves) to have access to the payments system. Moving from online payments to real world payments has proven challenging for these providers without an existing presence at the merchant point of sale.

Various initiatives throughout the globe set the foundation for larger-scale use and increased adoption

Mobile Telecommunications Players
Mobile operators have dominated the remote payments market with SMS-based micropayments that are billed to the operator bill. As the owner of both the device and the channel through which the consumer accesses data, some mobile operators have enjoyed margins upwards of 50% for digital goods such as ringtones and games. With such a high return, operators will aggressively protect this franchise. They do recognize that new revenue sharing models with new partners will be required to expand beyond small ticket digital purchases and intend to play a key role in the payments value chain.

Relatively young start up/technology providers are very nimble, willing to take risks, and entrepreneurial. They are often not bound by banking rules and regulations or oversight. They are typically backed by investment money which enables them to buy market share. They have limited brand recognition and do not have the ability to offer all functions along the payment value chain, and often must partner with others for end-to-end execution.

Hardware providers have technological expertise, strong brands, and capital—they provide the physical product (handsets and related technology) to mobile subscribers. They do not have the ability to offer all functions along the payment value chain.

SAFE + STABLE PAYMENTS
Mobile phones are delivering safe and stable payments in countries that have highly developed mobile networks but lack a widespread banking infrastructure.

Edgar, Dunn & Company (EDC) *is a global strategy consulting firm specializing in payments and financial services. Founded in 1978, the firm is widely regarded as trusted advisors in the payments industry, providing a full range of strategy consulting services, expertise and market insight through in-depth industry and consumer benchmarking.*

Out of Africa

For mobile commerce to take off, industry stakeholders must harmonize their efforts in the same way that led to proliferation of SMS and MMS technologies. In markets where multiple parties are working together, we have successful ecosystems where end users can pay for a multitude of goods and services via the mobile.

By Marty J. Beard,
President, Sybase 365

Given the technology industry's weakness for hyperbole, declarations about the demise of the PC are notable for the simple reason that they're actually true. While the "mobile commerce" business isn't immune from hype, when it comes to using a mobile phone in ways that are transforming people's lives, perception and reality are strikingly aligned. The $2 billion in mobile money transactions that occurred in 2009 is expected to grow ten-fold to $22 billion by 2012. Mobile remittances, or phone-to-phone transferring of funds, stood at $11 billion in 2009, and should reach $68 billion by 2012. And that's before we consider alternative forms of mobile value, including vouchers, coupons and loyalty points.

mCommerce:
Blooming or Glooming?

No one is truly surprised to see mobile commerce bloom. What is surprising is that it is blooming in a way that no one foresaw back in the 1990s, when it was expected that the US and developed countries would lead the way. In practice, the opposite has come to pass. Developing economies such as Africa and strife-torn middle-eastern countries, where financial infrastructure is sorely limited, are leading the way in mobile commerce deployments. There and elsewhere, mobile wallets and mobile-driven consumer interaction schemes are flourishing in ways that define mobile commerce.

Moreover, the majority of these transactions are being conducted using conventional, so-called feature phones, and not sophisticated smart phones. Prominent examples include MoneyBox Africa and M-PESA, mobile-phone based money transfer services that allow customers to deposit and withdraw money, transfer money to others, pay bills and make purchases. M-PESA, first launched by the Kenyan mobile network operator Safaricom, has since expanded mobile money services into other developing nations. Another successful deployment, MoneyBox Africa, created by a consortium of financial institutions in Nigeria, provides a similar array of mobile money services.

Innovation Inversion:
Redefining Commerce

These and other examples illustrate an exciting "innovation inversion," in which emerging economies are showing developed ones how to redefine commerce. The result in turn is a range of mobile wallet payment systems in Austria, France, Turkey and elsewhere. Make no mistake: even the most sophisticated of these systems have further to go to compete with credit cards. But it isn't for want of feature-rich devices and infrastructure that we aren't there yet. Implementing widespread mobile commerce services successfully in developed markets means clearing the following hurdles:

Build customer awareness. For mobile commerce to achieve the needed scale industry players must build greater awareness, plain and simple. One key to doing so are so-called location-based and social media services that engage customers and promote two-way communications. For these services make a difference, however, people need to know they exist.

Make transactions easy. Mobile payment platforms need to be integrated, so that advance-ordering a coffee on your way to a Caffè Nero while paying for a prescription at the Pestle & Mortar next door via mobile wallet is straightforward. For this to happen, mobile operators, retailers, financial institutions, card networks, payment processors and regulatory bodies must harmonize their efforts in the same ways that led to global adoption of SMS and MMS technologies.

Engage with customers. Mobile commerce is about much more than transactions. It's equally about interacting with customers to better understand how they operate as consumers for the purpose of being an enhancement rather than an intrusion. That means convenience, loyalty discounts, personalized marketing – all the things credit card companies have understood for decades – and more. Brand loyalty has to extend past one-way interaction initiated by the consumer.

Learn from customers. One of the things mobile communications does very well that credit cards don't (not yet, at least) is allow businesses to analyze what customers are doing in real time and adapt their offerings in light of what they learn. The ability of businesses to shape the customer relationship around the customer instead of the other way round is the ace up mobility's sleeve.

We're accustomed to thinking of developing economies following in the footsteps of developed economies. The progression of mobile commerce turns that notion on its head and in doing so charts a course for all of us back to Africa.

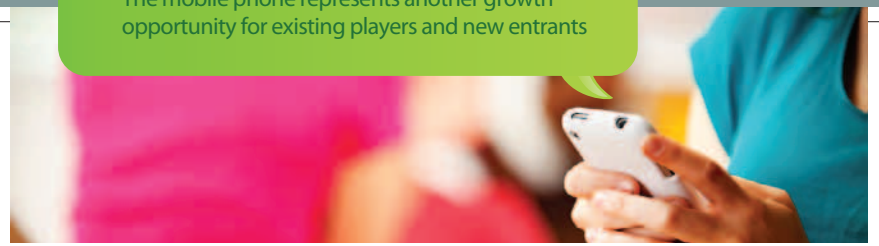
__Marty J. Beard__ is President of Sybase 365. Under his leadership Sybase 365 has become the global leader in mobile messaging and mobile commerce. Beard currently serves on the boards of directors for CTIA, and Harris Interactive. He actively participates in public policy advocacy on issues affecting the wireless industry, such as standards, telecommunications regulation and consumer protection. Beard obtained his BA from the University of California, Berkeley, with a double major in rhetoric and history and holds an MBA from Georgetown University in Washington, D.C.

Implementing a Mobile Channel

A SUCCESSFUL ENTERPRISE STRATEGY REQUIRES BUSINESS PROCESS ASSESSMENTS, A MARKETING CAMPAIGN, CUSTOMER MANAGEMENT AND MONETIZATION.

Customers are demanding higher-quality service and expect to get it every time. This fact is true for the mobile channel and any other business channel. Businesses that expect to meet customer demands must be ready to handle the volume and speed of requests. Only if they do so will companies succeed in keeping customers satisfied and realize a return on investment. Based on IBM's experience in helping clients implement mobility as both a channel and an enterprise strategy, a pattern has emerged for those organisations that achieve the fastest path to realizing business value. That pattern includes developing a comprehensive and integrated implementation plan across four key areas: business process impact assessment, channel adoption, customer or end-user relationship and support management and, finally, monetization.

By Ron Finlayson,
Business Development Executive,
IBM Global Business Services



Business Process Impact

As with any new channel, the effects of business processes across all aspects of the company that the new channel either interfaces to, or derives value from, must be considered carefully. Adequate planning and proper governance is required throughout the implementation to ensure that existing business processes have either been adjusted to support the requirements of the new mobility channel or developed where they did not exist. The new processes should be based on existing best practices. And, companies must align their technology and customer relationship management services to integrate sales, marketing and customer service functions across all channels and thus improve sales performance.

Channel Adoption

A well-planned promotion and marketing program that encourages adoption is critical to the success of any mobile channel implementation. While IBM has built several approaches to encouraging adoption of the new mobile channel, those that have consistently yielded the best results are both focused and deep across the targeted end-user base. Persistence of message, follow-through in execution and measurement against a well-structured feedback process have consistently provided proven, tangible results. Flexibility and the willingness to adjust are also key factors seen in companies that have launched successful mCommerce programs.

These elements of a successful promotion and marketing program help lower business costs, shorten campaign planning and development cycles and increase responses and revenue while building and enhancing customer relationships. Organisations that leverage customer information from multiple sources throughout the company get a customized, high-performance campaign management campaign that can help identify and retain customers, while also driving profitable company growth.

A complete campaign management program for any channel should allow companies to:

- Identify and retain valuable customers
- Execute permission-based, multi-channel campaigns and high-quality, event-based marketing programs
- Engage customers in real time across any channel
- Leverage Web channels to acquire new customers and build loyalty
- Increase revenues and grow customer lifetime value with cross-selling and up-selling based on business intelligence
- Optimize targeting and improve response rates with robust segmentation capabilities
- Improve conversion rates through integrated response capture and automated lead assignment
- Align campaigns with appropriate target audiences
- Use preferred channels of communication
- Measure, monitor and refine campaign performance

Customer / End-User Relationship + Support Management

Like the Internet channel, the mobility channel facilitates an “anytime” transaction capability, but extends it to include a much broader “anywhere” aspect. Deep adoption and value of the mobile channel is realized when availability and reliability are both adequately addressed. If end users of the channel find that either of these factors is not addressed on a frequent basis, they will assume that the channel is unreliable and of substantially diminished value.

Studies show that this diminished view flows well beyond the mobile channel and related service, and carries to the provider of the mobile channel. This negative perspective can diminish an mCommerce provider’s otherwise great reputation. Consumers who are attracted to the mobile channel are almost always active in social media and other forms of rapid and pervasive communications where negative views can be easily shared.

Even the most reliable and available systems in the mobile channel will need direct client support. Organisations can minimize the impact to their call-centers and customer support if they include strategic self-help services such as built-in help, FAQs, interactive video and, ultimately, direct connection to support personnel who are well trained and well versed in the mobile services.

Monetisation

Knowing customers’ habits and preferences is crucial to stay competitive. To monetise the mobile channel, understanding customers and offering them the services and personalisation they want will enable organisations to:

- Increase customer retention, loyalty, revenue and profit
- Achieve a significant, broad-based and rapid return on investment
- Reduce cost and risk
- Deploy the mCommerce application rapidly

Concentrating on end-user value, evaluating competitors and developing a robust set of mobile services that are unique in the marketplace is the fastest route to monetization opportunities.

Simply stated, by developing a deeply coordinated implementation strategy that encompasses these key areas, you will minimize the cost and risks associated with the implementation of the mobile channel, while increasing the odds of end-use adoption and monetization opportunities.

Ron Finlayson *is Business Development Executive at IBM Global Business Services.*

Lessons for mCommerce Implementations

THE MARKET MAY STILL BE MATURING, BUT A SET OF USEFUL BEST PRACTICES IS ALREADY DEVELOPING TO HELP ENSURE SUCCESSFUL mCOMMERCE DEPLOYMENTS.

By Haridas Nair,
Vice President,
mCommerce Solutions + Services,
Sybase 365

While mCommerce implementations are relatively new, successes such as Safaricom in Kenya, paybox in Austria, Compass Bank in the United States, mpass in Germany and others provide a solid set of lessons learned for mobile operators, enterprises and financial institutions. After years of working with organisations and deployments to more than 15 million end consumers and 20,000 merchants, Sybase 365 has found that these 10 best practices consistently lead to the most successful deployments.

Control the Enrollment Process

The mobile ecosystem has multiple players: banks, operators, merchants and consumers. If a member of the ecosystem is to have direct contact with the mCommerce subscriber, it needs to control and manage the enrollment process. The tussle to control the enrollment will increasingly play out among the ecosystem participants, resulting in an acceleration of mCommerce services offered to consumers.

When offering a mobile service, capturing the consumer's mobile credentials and payment credentials is essential

Minimize Adoption Barriers

One barrier to adoption is the amount of information requested to enroll in a service. Requesting too much information to register for a mobile service reduces its likelihood of success. In Malaysia, customers can enroll in Celcom's AirCash by providing only their passport number or national identification number and name. When the customer goes to cash in or cash out, additional Know Your Customer (KYC) data is collected. Simplifying enrollment to two pieces of information lowers the barrier to adoption significantly, and it increases the service's chance of success.

Capture Mobile Credentials

When offering a mobile service, capturing the consumer's mobile credentials and payment credentials is essential. In India, for example, per Reserve Bank of India guidelines that went into effect February 1, 2011, all merchants are required to collect a one-time password and card details for transactions completed by phone. This requires the issuers to provide a system to request a one-time password; however, it forces the consumer to register the mobile credentials.
A one-time password to a mobile phone reduces the potential for fraudulent use. The issuers now have a means to connect with their card customers and the opportunity to offer additional services based on the relationship in the future.

Launch Multiple Services

Offering a set of services ensures repeat business. Commercial Bank of Qatar, for example, has a mobile banking offering that includes standard functions such as balance and statement transfer, as well as bill payments, local money transfer and international money transfer. Celcom's AirCash in Malaysia provides customers a mobile wallet service that includes balance and transaction history, and services such as domestic transfer, international remittance, airtime remittance internationally and air-time top-up.

Offer a Cash-In + Cash-Out Service

Make it easy to put cash in and take cash out of mobile wallets, especially in areas with large populations of under- or unbanked customers. At Celcom, subscribers use the AirCash service as a mobile wallet. Subscribers can add money or take money out of their mobile wallets by visiting their operator agents. Money can also be sent to the subscriber's mobile wallet that the subscriber can access through the agent.

One barrier to adoption is the amount of information requested to enroll in a service

Enable 2nd-Factor Authentication

A simple touch or a text from a mobile device can secure a payment. If users do not have a smart phone, an SMS combined with interactive voice response as the second-factor authentication can enable payments.
For mobile Web or Web transactions, a mobile wallet can be used for payment by collecting a mobile phone number and a mobile personal identification number (MPIN), supported by an SMS confirmation. mpass in Germany uses this type of combination for Web and mobile Web transactions.

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Tie Revenue Models to the Value of Service to Consumers

Revenue models can include fixed subscriber fees, per transaction fees, merchant service charges, foreign exchange spread and more. These models vary within emerging and developed markets. In emerging markets, for instance, fees are charged even for balance lookups, as the alternative is a two-hour trek to a bank branch. That service is essentially free in developed markets because of the multiple options available to the consumer.

8

Expect an mCommerce Ecosystem with Friction

Although the desired state is a friction-free ecosystem, the effort to control enrollment will cause banks and operators to launch competing mCommerce services. Success will be driven by the value they provide to their customers and what regulators will permit in each market. While operators have led in offering mCommerce services, banks are now joining the mix. In markets such as Germany, Indonesia and Malaysia, banks are offering mobile banking services that encompass airtime TopUp. Increasingly, 3rd parties in emerging markets and merchants in developed markets are entering the market, evidenced by the number of mobile money services in Kenya and mPayment applications on smartphones. Watch for each ecosystem player try to leap frog the others.

9

Capture Support Mobility at ATMs

Once a customer's mobile credential is registered, ATMs can be a convenient vehicle for cash-in and cash-out scenarios in some markets—without the need to have a physical card. ATMs can also be a good payout vehicle for merchant promotions that involve cash rewards.

The successes of international mCommerce implementations provide a solid set of lessons learned for mobile operators, enterprises and financial institutions

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Plan your Service for all Mobile Channels

The mobile phone supports multiple channels, including SMS, Unstructured Supplementary Services Data (USSD), rich client and mobile Web. Investments in technology should be made with an eye to offering or extending the service easily across all the available channels. Many banks, such as Compass Bank in the United States, started with basic SMS banking, then added iPhone, iPad and Android applications. Compass Bank was able to deliver the additional services easily because it invested in a common mobile banking platform that is extensible across all mobile modalities.

THEREFORE...

WHEN LAUNCHING new mCommerce services, keep these best practices in mind. As the market matures, the industry will add new knowledge based on real-world experiences, but for now, these lessons learned can help ensure a successful mCommerce launch.

Haridas Nair *manages Solutions and Services for mCommerce within Sybase 365. He is responsible for driving the strategy and implementations across mBanking, mPayments and mRemittance. Previously, he was responsible for strategy and evaluating emerging technologies within the Information Technology Solutions Group at Sybase. During his tenure at Sybase, Nair has led marketing and product management for the company's data management products.*

What You Don't Know Can Hurt You

CRIMINAL HACKERS TARGET THE WEAKEST LINKS IN THE MCOMMERCE ECOSYSTEM. FINANCIAL INSTITUTIONS AND MOBILE OPERATORS MUST WORK TOGETHER—AND GET THEIR CUSTOMERS INVOLVED—TO MAKE MOBILE TRANSACTIONS SAFE.

By Tom Wills,
Senior Analyst, Security + Fraud,
Javelin Strategy + Research

Security concerns are an absolute showstopper for mCommerce. In the Javelin Strategy and Research 2010 annual report Mobile Banking Behaviors, U.S. respondents listed security fears as one of the top two reasons why they did not use mobile banking and payment options. This fear hampers U.S. consumer acceptance of mCommerce, an acceptance level that lags far behind that of Japan and Korea, the world's leading markets for mCommerce. To reach these high consumer acceptance levels, U.S. financial institutions and mobile operators will have to prove to consumers that mCommerce is safe, as well as fast, dependable and simple to use.

The security concerns that consumers voice are muddled between the real and the perceived. Consumers worry that someone will hack the mobile communications channel and steal bank account numbers or sensitive personal information. Realistically, the risk of this happening is relatively low. Hackers or fraudsters commandeering a mobile device remotely and gaining access to the owner's ID to launder money or commit fraud is more likely than a hack into a network connection.

What most consumers (and many service providers) don't realize is that of the three remote payment channels—telephone, Internet and mobile-mobile is potentially the safest, provided that its unique security strengths are woven into the product design. These strengths are user awareness, easy authentication options and readily available device deactivation.

> To be safe, financial institutions, mobile operators and consumers will need to cooperate fully and vigilantly follow security best practices

User Awareness

I bet you can put your hand on your mobile phone within 15 seconds. We're very attached to our mobile phones; a great many of us even take them to bed. At any given time, I'm more likely to know where my mobile phone is than where my wallet is. If I leave my wallet at home when heading out for the workday, I might not know it's missing until I'm at the deli counter buying lunch. On the other hand, I'll know within a few minutes of leaving home if my mobile phone is missing. This highly personal attachment to the mobile phone is a big security advantage because most people are quick to realize when their phones are missing. This significantly narrows the window of opportunity for thieves to abuse lost or stolen handsets.

Authentication Options

Every mobile device has an optional personal identification number (PIN) or password feature to prevent unauthorized persons from gaining easy access to information stored on the phone. And, the phone itself makes a great authentication factor for mCommerce services because (except for prepaid phones) the physical handset is tied to the subscriber's identity by information in the SIM card.

Deactivation

Most important among the security advantages, mobile phones (or the applications on them) can be deactivated remotely when lost or stolen. A single call to your operator is all it takes and the operator can deactivate the mobile service and – if it's a smartphone – wipe all the data from the device.

Consumers need to participate actively in safeguarding their mobile devices and the information on them

Making Consumers Security Smart

Consumers too often see security as someone else's responsibility. The assumption is that the bank, the mobile operator and the retailer will make the transaction secure. However, consumers need to participate actively in safeguarding their mobile devices and the information on them.

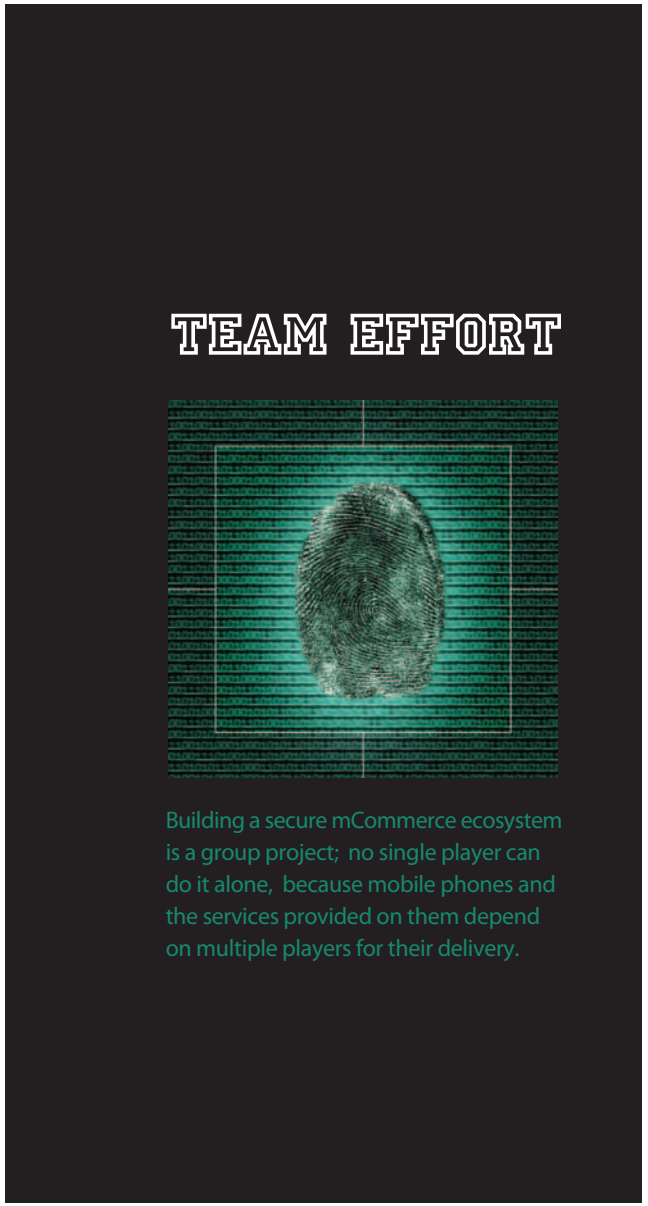
Consumers typically don't practice safety habits because doing so is inconvenient. Consumers want to see their account balances in five seconds; they don't want to wait the 30 seconds that's needed to go through an authentication procedure. Use of power-on PIN or password authentication, installing antivirus software and (where available) pre-registering for device geolocation or shutdown if the phone is lost or stolen are all security steps that consumers can take to protect their data. But they rarely implement these steps.

This complacency has to change. Instead of accepting customers' laissez-faire attitude toward security, banks should deputize their customers, educating them about security and giving them incentives to practice it. For example, banks could offer customers $1 off their monthly fees, free cheques or a gift card to verifiably install antivirus software on their mobile phones.

Securing the Mobile Ecosystem

Adding security at the consumer level is needed, but not enough. To reach an adequate level of mCommerce security, every player in the ecosystem—particularly financial institutions and mobile operators—has to be more security minded. Building a secure mCommerce ecosystem is a group project; no single player can do it alone, because mobile phones and the services provided on them depend on multiple players for their delivery. The bad guys always find the weakest link and prey on it—and this weakest link is often at the gap where one player's responsibility ends and the other's begins.

Consumers need to be given incentives to add password authentication and taught how to deactivate their phones. Mobile operators need to create an industrial-strength, end-to-end security chain from anywhere the end user is located to the bank network. Financial institutions must deploy applications that meet all the latest security threats and vulnerabilities—a challenge that's constantly evolving. Right now, financial institutions are the most security-conscious of the ecosystem players, perhaps because they have the most to lose. But much more still needs to be done.



Building a secure mCommerce ecosystem is a group project; no single player can do it alone, because mobile phones and the services provided on them depend on multiple players for their delivery.

Looking into Security Tea Leaves

Trying to forecast all future mCommerce security threats is impossible, because we're still at the very early stages of using a new technology platform to deliver financial services.

When online banking was first introduced, few imagined that phishing or identity theft would become some of the biggest threats.

The same will be true for mCommerce. To be safe, financial institutions, mobile operators and consumers will need to cooperate fully and vigilantly follow security best practices.

mCommerce will depend heavily on security for its future success. Consumers must have confidence in this new medium to use it for shopping and banking. With that in mind, any company offering mCommerce services will need to give security the highest priority, implementing safeguards against real threats and managing customer fears through education and behavioral incentives. Only with these steps in place will consumers use the service and mCommerce succeed.

Tom Wills *leads Javelin's strategic risk management, security, fraud and compliance advisory services. His background spans payment systems, e-commerce, homeland security and enterprise software. Wills has served as a director, advisory board member or strategic consultant for NTT Data Corporation, Wells Fargo Merchant Services, PayCycle.com, Hyundai and several startup ventures in the security arena.*

Closing Security Loopholes

MCOMMERCE WILL REACH MASS ADOPTION RATES WHEN TRANSACTIONS HAVE BUILT-IN SECURITY FEATURES AND MEMBERS OF THE ECOSYSTEM DEVELOP COLLABORATIVE BEST PRACTICES.

Security is the single most important—and probably most complicated—service that banks, mobile operators and enterprises offer their customers. Security is complex because every member of the mobile ecosystem-financial institutions, application developers, mobile operators, enterprise/brands/retailers and customers—must make comprehensive efforts to protect financial and personal data at every level, including the physical premise, the network, the transaction and the user activity.

When considering how to secure the physical premises, network and transaction, the industry can rely on the tried-and-true technology and security best practices known and used widely in IT departments. User activity is an entirely different challenge. End users commonly engage in unsafe practices for the sake of convenience. Knowing that users might disregard security requirements, banks and enterprises must rely on security built into the mCommerce workflow. Here is a quick guide to the types of mCommerce channels and recommendations that will help make data exchanges secure.

By Andrew Mikesell,
mCommerce Product Director,
Sybase, an SAP Company

Security is the single most important—and probably most complicated—service that banks, mobile operators and enterprises offer their customers

mCommerce for Every User, Every Phone
When considering mCommerce, financial organisations, mobile operators and enterprises can choose from different channels: SMS, rich-client applications and mobile browsers. SMS is currently the most popular mCommerce channel because every mobile phone supports SMS and users are familiar with it. In the future, expect to see a significant increase in rich-client applications and mobile browsers. As smartphones become more prevalent and operating systems are developed with commerce features, these types of applications will surge.

SMS. For mCommerce transactions that use SMS, data logging must be addressed. Every message is written to the phone's SMS history, and the messages should not include information that could allow a security breach. The application should use account masking and limit the value of the information saved within the SMS log. Hiding that information will protect the user should the handset be lost or stolen. Limits should also be placed on funds movement options by adding approval workflows, transaction limits or destination limits.

Rich-Client Applications. Applications must be from a trusted source such as the Apple App Store or Android Market. The trusted source needs to provide the safeguards that will prevent Trojan applications from compromising a user's device and related accounts.

Mobile Browsers. Secure Sockets Layer (SSL) certificates and 128-bit encryption are universal security techniques that will protect the data just as they protect online banking applications.

Other safeguards to protect funds include:

- ***Multi-Factor Authentication (MFA)***: users are asked to verify in multiple ways (such as a password, shared secret, voice authentication or token) that they are who they say they are.
- ***Interactive Voice Response (IVR) Callback:*** to complete a transaction, the application calls the user's phone and requests the user to enter a Personal Identification Number (PIN) to approve the transaction.
- ***SMS Tokens:*** A key fob or other type of hardware must be used to complete the transaction.

You can add another layer of security by requiring that the user be notified first of activity such as funds movement, password changes, new account registration and user profile changes. These alerts announce when the account has changed. If the user did not instigate the change, he or she will realize the account may be compromised and contact the bank to limit the impact. The goal of the alerts is to provide an appropriate and timely level of notification without overwhelming the user.

Regardless of which channel is chosen, banks and enterprises must consider where vulnerabilities are exposed. One of the best ways to address vulnerabilities is to build a set of use cases, such as a "lost phone use case," and apply the use case to each transaction type independently to identify risk. In this scenario, you identify the level of risk for a lost phone that is enabled for SMS banking. Questions to ask are:

- Could the SMS log contain any account information that compromises the user's account?
- Do the text messages expose funds movement transactions?
- What are the credentials needed to access the application?
- Could the credentials for the SMS transaction be applied using another phone, and what are the protections in place to address?
- What are the procedures to limit access to the accounts within the financial institution?
- If users contact the financial institution, what additional guidance can the financial institution provide, such as telling them to contact their mobile operator to disable the phone?
- Does the bank have helpful information readily available in call center, branch, IVR and Web presence to assist the user with a lost or stolen phone?

You would need to develop use case scenarios for each of the other channels to fully address the risk level.

A Call for More Ecosystem Collaboration
The market will advance in 2011, especially in mCommerce channels around new features, functions and security.

As applications become more defined, mobile operators and financial institutions will need to work much more closely together to ensure that the applications function as promised.

Rather than debating who owns the customer relationship, mobile operators and financial institutions need to develop standards and mCommerce best practices that protect all ecosystem participants. Financial institutions bring the funds movement tools and customer accounts, and they are bound by Know Your Customer (KYC), Anti-Money Laundering (AML), and Office of Foreign Asset Control OFAC regulations. Mobile operators have the responsibility of the network and provisioning.

Realistically, financial institutions are unlikely to replace mobile operator functionality, nor are mobile operators likely to get into the banking business (although outside the United States, sometimes mobile operators do get involved in banking). Both groups have the customer relationship; to maintain that relationship, they need to collaborate to ensure transactions are secure.

Andrew Mikesell *joined Sybase in November 2000, bringing more than 10 years of experience of Internet bank implementations, mobile billing systems and n-tier systems integration. Before joining Sybase, Mikesell managed teams responsible for implementing Internet banking offerings and mobile billing systems integration for Top 100 financial and mobile service providers within North America, Asia and Europe. Mikesell holds an MBA and a BSBA in information systems and business economics from the University of Denver, Colorado.*

Latin America Cautiously Adopting mPayments

ALLIANCES ARE YIELDING MOBILE PAYMENT SOLUTIONS FOR THE UNBANKED THROUGHOUT THE CARIBBEAN AND REGIONS OF CENTRAL AND SOUTH AMERICA. BUT THE FUNCTIONALITY THAT COULD CAPTIVATE LATIN AMERICA IS MOBILISED INTERNATIONAL REMITTANCE.

By Mary Gramaglia,
Director of Sales, mCommerce,
Sybase 365

Latin America's subregions have different approaches to mobile payments that reflect each market's unique dynamics and the relative significance of local players. In general, the smaller countries are leveraging their ability to move more quickly vis-à-vis the larger countries in their deployment of mobile payments solutions. The smaller countries benefit from less onerous and complex regulatory environments and can more easily form alliances, sometimes as a result of natural crises.

One example includes the rollout of the tPago solution in the Dominican Republic. This solution is led by a third-party provider, GCS, in conjunction with the America Movil subsidiary Claro and the country's largest bank, Banco Popular Dominicano. By the same token, the Dominican Republic's neighbor, Haiti—struggling to recover from the effects of the January 2010 earthquake that decimated an already fragile financial system—has received significant funding from both the Bill and Melinda Gates Foundation and the U.S. Agency for International Development. With this funding, Haiti will deploy multiple mPayments pilots, the first launching as a partnership between Digicel and Scotiabank.

Proceed with Caution

The approach to mPayments in Latin America has generally been more cautious than in other emerging markets around the world. In Asia and Africa, many regions have accelerated adoption of mobile payments solutions with sophisticated deployments from providers such as Fundamo, Utiba and Sybase. Some projects are even emphasizing business-to-business mPayments applications, such as Zain's mobile cash collection on behalf of consumer goods companies (for example, Coca-Cola) in central Africa.

In Latin America, regulatory frameworks are much more restrictive. Colombia, with its highly evolved legal and regulatory framework, fears that "mobile payments" could become synonymous with "virtual money" and the creation of a parallel currency. (Colombian regulators' reaction was in part due to a 2009 pyramid scheme that attracted millions of that country's lower socio-economic strata, only to go bust in a dramatic scandal that threatened the administration of then-President Alvaro Uribe.)

In Latin America, regulatory frameworks are much more restrictive

But the climate in Latin America is constantly changing, and now many players show an increased interest in the potential of mobile payments to address the region's underbanked populations. However, governments continue to cast a watchful eye over any pending deployments, a clear indication—certainly across Latin America if not the Caribbean—that any mPayments initiatives will require significant financial sector involvement.

Who Is in Control?

No Latin American mobile network operator, including the region's two dominant players, America Movil and Telefonica, will be able to exercise the control that operators evidenced in the iconic deployments of Kenya's M-PESA and the Philippines' G-Cash. In fact, in Ecuador, the government perceives an opportunity to become an arbiter in the mobile payments arena and extract significant cost savings by mobilizing social benefits payments and possibly exercising control as to who issues mobile wallets.

Venezuela's President Hugo Chavez has sanctioned mPayments solutions. However, due to extremely restrictive exchange-control policies, Chavez is unlikely to approve any project that enables international remittances, potentially the most interesting mPayments functionality for Latin America. For the past several years in Latin America, there has not been a clear distinction between mobile banking and mobile payments. That is no longer the case in 2011. In fact, the banks—rightly perceiving that regulations favor a leadership role for them in the provision of mobile financial services to the unbanked—are seeking to replace rudimentary mBanking platforms. They are moving toward solutions that combine more sophisticated functionality with the ability to target their countries' unbanked with mobile wallet–enhanced mPayments.

Interest in mPayments for the unbanked is acute throughout the region.

Interest in mPayments for the unbanked is acute throughout the region, whether in the smaller countries of Central America, where the unbanked populations exceed 75 percent, or in the economic juggernaut that is Brazil. There, enormous financial institutions such as Banco Itau, Bradesco and Caixa Economica Federal, which enjoy significant brand recognition and extensive branch networks, are certain to play leadership roles in mPayments. In Mexico, where Telcel dominates the mobile sector (while its sister companies operating under the "Claro" brand in Ecuador, Peru and Argentina, and "Comcel" in Colombia, are almost as powerful), an mPayments joint venture has been formed with Mexico's

second-largest bank, Banamex. The goal is to bring solutions to Mexico's vast population of unbanked.

Banks expect consumers to respond favorably to mobile wallet solutions.

Choosing the Right Partner

As banks seek to deploy mPayments solutions throughout Latin America, they will pursue mobile network operators and payment processors as their partners. With more than 98 percent mobile penetration by the end of 2010 (according to Pyramid Research), the vast majority of which involves prepaid usage, Latin America's consumers are already well acquainted with their operators' correspondent agent networks.

Banks expect consumers to respond favorably to mobile wallet solutions. Some banks, such as Banco Agrario in Colombia and Caixa Economica Federal in Brazil (both state-owned commercial banks), have significant physical presence in their respective countries. They have less of a need to leverage the MNOs' networks for mWallet registration and cash-in/cash-out procedures, but they are the exceptions. Encouraged by the development community and multilateral organisations such as the World Bank and the Inter-American Development Bank, Latin America's expanding micro-finance institutions are expected to eagerly adopt mPayments solutions and may be excellent distribution avenues for the larger banks' solutions.

Mobilised International Remittance

If Latin America is expected to find utility in the mobilisation of domestic remittance (person-to-person transfers) and payments for bills and services, the functionality expected to captivate the region is mobilised international remittance. According to Pyramid Research, with 152 million households, an average annual remittance per family of $400 and a total annual remittance figure of $58.8 billion (2009), inflows of funds from abroad exceed 10 percent of the region's nominal GDP.

As further testimony to Latin America's reliance on these sources of funds and the overall difficulty of maintaining independent monetary policies to sustain weaker national currencies, both El Salvador and Ecuador have dollarised their economies and now circulate only the U.S. dollar.

Note, however, that mRemittance has several impediments to gaining traction. One of those is the development of a cost structure that reflects already competitively priced remittance corridors between the region and the United States or other countries such as Spain. Further, the issue of regulation—already a top concern for Latin American regulators—is likely to become acute as their U.S. counterparts seek to exercise control over a channel that could facilitate money laundering and the financing of terrorist activities.

For this reason, Latin American banks with an established U.S. presence, as well as recognized remittance brands such as Western Union and payment processors such as Visa—all of which facilitate international payments—are likely to be interested in mobilisation of remittances despite the inherent challenges. The region's MNOs, many of which also have established U.S. brands (for example, Telefonica's Tracfone), will have to contend with the United States' stringent Know-Your-Customer policies that may be relatively unfamiliar to them.

On Track to Accelerate

The region's handful of powerful mobile network operators (including America Movil and Telefonica, as well as Digicel and Millicom and Brazil's Oi and Vivo), will form alliances with banks and select payment processors. Some countries, such as Brazil, will make significant progress in establishing interoperable mobile payment networks. Smaller subregions, such as the Caribbean islands and the countries of Central America, are likely to move quickly to deploy solutions. If impediments persist in key remittance corridors such as the United States to Mexico, it is possible that intra-regional mobile remittance corridors, such as Mexico to Guatemala, or Costa Rica to Nicaragua, may develop.

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Opening the Floodgates in North America

NORTH AMERICA HASN'T BEEN THE LEADER IN MOBILITY LIKE IT WAS A LEADER IN THE INNOVATION AND ADOPTION OF THE WEB, BUT THAT DOESN'T MEAN IT WON'T BE A MAJOR PLAYER. IN FACT, ALL THE PIECES ARE COMING TOGETHER NOW.

By David Youker,
Sr. Director, mCommerce Americas,
Sybase 365

There's a myth to be dispelled about mBanking and mCommerce services not being attractive within the North American market. It's true that there is a difference in uptake when utilization rates in North America are compared to emerging markets, where mobility provides financial services to people who haven't had widespread access. All the same, an unimaginably large opportunity for mobile financial services in developed countries definitely exists.

An unimaginably large opportunity for mobile financial services in developed countries definitely exists

Across the world and in much of the Western Hemisphere, consumers are using mobile devices to manage and/or exchange value in myriad ways. While emerging markets within the Americas (primarily in Central and South America) are rapidly adopting the mobile phone for making payments, the bulk of North American financial services companies have approached mobility exclusively from manage-a-retail-customer's-account view. Yet the services available today, while vital, are a small portion of the longer-term picture of true financial mobility for the North American marketplace.

Financial Mobility:
An Always-On Vehicle for Engagement

Countless articles and an untold number of vendors have touted the imperative of mobile payments, mobile alerts, mobile marketing and others, with the assumption that they offer value simply because they are mobile. Such claims recall the dot-com years, when any company named after a noun preceded by "e-" was destined for stardom.

The North American market has time and again proven arguments for single-use mobile solutions to be flawed or at least short-lived. As always, the market decides what delivers sustained value. A limited number of North American banks are taking a cue from banks to our south and from other retail service providers (such as a limited number of airlines), and starting down the path to delivering new sources of value for the consumer.

Real financial mobility involves not just using the mobile channel to effect financial interactions—but to empower end users to become upwardly mobile socio-economically. This means letting them manage (including move), analyze, and mobilise relevant information and assets in whatever way is optimal for them.

Consumer Mobile Banking:
A Citadel for Financial Mobility

In much of North America, mobile banking is synonymous with alerts-driven, multi-modal account access (DDA, card and more) and management (including queries, transfers, bill payments, locator services, and, to some degree, cross-sell and up-sell messaging). Banks recognize the gains to be achieved in reduced customer care costs, reduced attrition, reduced fraud, increased security, and general convenience for the consumer. Realization of these potential gains hinges on two factors: The customer experience (end-to-end), and promotion.

As always, the market decides what delivers sustained value.

Banks that make enrollment in mobile banking not only easy, but automatic, understandably experience higher adoption rates. The decision to make mobile sign-up automatic requires a change in the mindset of bank product managers—and in the various points of interaction with new and existing customers. Leading edge banks enable enrollment in-branch, over the phone (including through IVR), at ATMs, online (even for non-online banking customers) and, increasingly, directly from mobile devices.

Invitations to enroll should not be limited to one or two channels, but wherever end users may be. That's what works. A Canadian client of Sybase has an Apple iPhone app that was the number-one downloaded smartphone application in Canada for a time—due in large part to effective promotion (including national broadcast advertising).

Banks in select markets (such as Central America and the Caribbean) are increasing their role in consumers' commercial lives by moving aggressively to enable purchases of mobile phone airtime, loan products (in real time), digital goods (and increasingly tangible goods), mobile-originated and/or received remittances, and even scheduling appointments at United States consulates for upcoming visits.

Corporate Mobile:
A Heavyweight Financial Mobility App

Banks making investment decisions for retail banking in the United States have been challenged to define revenue-based business cases. After all, retail customers expect the bulk of bank services to be free of charge. Treasury management, however, is an entirely different story.

Corporate/treasury management customers are used to paying for services, and dealing with (in many cases) complex pricing structures. Additionally, the average dollar value of a B2B transaction dwarfs that of C2B—and typically carries with it incomparable urgency. Thus, corporate mobile banking offers an opportunity for banks to increase the velocity and volume of fee-generating transactions, while potentially charging an incremental service fee for mobile channel access. A recently-released vendor-supplied corporate banking solution for RBS Citizens Bank in the northeastern United States lets corporate customers approve or release scheduled payments such as wire transfers,

transfer funds to different accounts, receive alerts about pending transactions, view account balances and recent transactions and more.

During a joint presentation with RBS Citizens at the Association of Financial Professionals (AFP) conference, a standing-room only crowd of 400 people posed an abundance of questions and showed incredible interest in corporate mobile banking. The spread of tablets may be the ultimate catalyst for corporate mBanking, as the larger form factor offers better potential for reporting, analysis (including graphs), and exception processing.

Consideration of mobile treasury management opens the doors for other lines of banking business, including wealth management, insurance services, consumer lending, and more—not to mention intra-enterprise applications.

Brand Names + Retailers: From Awareness to Transactions

According to Deloitte's Annual Holiday Survey released at the end of October of 2010, 45 percent of shoppers in the United States said they would use their phones to research prices, 32 percent said they would use it to find coupons or read user reviews of products, and 25 percent said they would make purchases from their phones. The New York Times reported in December that people were indeed using their phones to comparison shop—and even haggle at the cash register, with the phone showing proof of another retailer's lower price.

Combine consumers' willingness to use their phones to shop, with the new 4G networks getting built out by the major mobile operators in North America, and it starts to look a lot like the previous decade when broadband became widely available to consumers. That's when online shopping really took off.

Right now, 9 out of 10 people in the United States have mobile phones, and more of those are smartphones every day. So, it's no surprise that the mCommerce opportunities in North America are largely through smartphone apps. The Starbucks Card Mobile App lets you pay for your drink with your mobile. The Shazam application can listen to a song on the radio, identify it, and find it for you in Apple's iTunes store, where you can buy it from your phone and then download it. The eBay app gives buyers real-time updates if they're outbid in auctions, and just before their watched auctions end. It also lets them check out in just a few clicks with PayPal. The same app gives sellers the ability to list items for sale, scan barcodes to pre-populate the listing on items they've sold before, and even complete the sales process from their phones.

On the operator front, AT&T, Verizon and T-Mobile have recently formed a joint venture called Isis. The group is working on building a mobile payment system that works via smartphones and near-field communication (NFC) technology.

The group plans to launch the system in several key markets sometime in 2012, and eventually roll out additional mobile financial services, including a mobile wallet that will take the place of reward cards, coupons, tickets and transit passes.

The mCommerce picture is definitely coming into focus in North America, even if it looks a little different than what we've seen in other markets.

The New Era of Mobility

Mobility is changing the banking industry in several important ways. As other North American industries embrace mobile financial services, it will likely have similar effects.

In banking, mobility is raising consumer expectations. Nowadays, consumers want real-time visibility into their accounts and transactions. They expect banks to be proactive about customer care, and notify them immediately if there's an issue, instead of waiting for customers to make the call. Consumers also expect to be able to resolve issues quickly. They don't want to have to call back when the center is open, or dial a specific number. The Internet and mobility are rendering those older customer service methods obsolete.

As more consumers access the Web from mobile devices instead of desktop computers, the line between the Web and the mobile Web will go away.

The potential cost savings that mobility can deliver also forces banks to identify and quantify operational expenses that they weren't considering before.

Additionally, mobility has banks thinking about new ways to grow their businesses through self-promotion. They're starting to leverage their real-time access to customers through loyalty programs and marketing campaigns that include partnering with other firms.

Trends Today + Tomorrow

As banks today are looking to replace first- or second-generation mBanking infrastructures with new solutions that offer additional services, better security and more robust customer care, so will retailers—both online and offline—soon be re-evaluating their current e-commerce solutions.

As more consumers access the Web from mobile devices instead of desktop computers, the line between the Web and the mobile Web will go away, especially with rise of mobile tablets and the growing trust that banks, retailers and consumers are putting into the mobile channel.

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U.S. Banks: Racing to Catch the Mobile Wave

TO MATCH THE PROGRESS OF EUROPE AND ASIA, AND GET A BIGGER PIECE OF THE TRANSACTION PIE, THE UNITED STATES MUST ACT NOW.

By Richard K. Crone,
CEO + Founder,
Crone Consulting LLC

Mobile payments and self-marketing at the physical point of sale is the single largest market opportunity in mobile commerce

n Europe, some 12 million people use their mobile phones for financial self-service functions, compared to only 10 million in the United States. And that gap is expected to increase. Of the estimated 200 million customers worldwide that will use mobile banking by next year, Japan, South Korea, and—soon—China will have the most (41%), followed by Western Europe (22%) and North America (12%), according to Juniper Research ("Mobile Banking: Strategies, Applications & Markets" reports for 2008-2013 and 2010-2015).

Moreover, in technologically sophisticated countries such as Japan, mobile technology has transformed the service experience. For example, NTT DoCoMo's FeliCa service enables more than six million Japanese consumers to use the near field communications (NFC) technology equipped in their phones to activate purchases at retail stores, train stations and many other points of sale. NFC technology in the United States faces a number of challenges, from the hardware upgrades required on phones and the point of sale to the coordination of numerous competing / collaborating entities. But banks need not wait on NFC to implement a market-moving mobile strategy.

Three Waves in Mobile Financial Services

To achieve mobile market share—and revenues—financial institutions need to pursue strategies that target the three waves in mobile financial services: mobile self-service, mobile payments, and mobile self-marketing.

Mobile self-service describes a continuum from reducing the cost of doing business to relationship building to creating new lines of business. It is used to build the bank's enrolled base of customers and is the basic requirement for mobile payment and mobile marketing. Mobile payments could include NFC "tap and go" technology, perishable codes from text messages, expedited remittances to a service provider, or a host of disruptive new technologies. Mobile self-marketing is personalized opt-in communication such as location-specific offers, electronic coupons, alerts or loyalty program updates.

To capitalize on these three waves, banks and financial institutions must:

1. Re-engineer information delivery wherever possible
2. Build and strengthen their enrolled customer base
3. Integrate payments with merchants' retail mobile applications, ideally without deploying new hardware or other requirements.

Mobile Information Delivery

The need for mobile self-service is most evident at the contact center, where the volume of customer calls has increased despite increased use of company Web sites to share information. Financial institutions must analyze why customers call and then re-engineer the information delivery for the five to 10 most frequent queries, harnessing the unique two-way communications channels of mobile: voice, text, mobile browser, apps and more.

Because debit cards are now used in more transactions than either cash or credit cards, customers are increasingly calling their banks to learn their balance. Getting the agent out of these transactions is important for financial institutions. The cost for a person handling a call is $3 to $15, but an automated system costs only three to thirty cents per call. A proactive alerting functionality can satisfy most customers' needs before they make the call. Bank of

call. Bank of America, for example, realized an annual savings of $110 million by deflecting calls to mobile self-service channels. And that's just one part of the Return on Investment (ROI).

ROI is built initially on call deflection, but the real ROI will come from enabling mobile payments and self-marketing at the physical point of sale. That's the single largest market opportunity in mobile commerce, worth $6.2 trillion spent in the United States. And up to 80 percent of banks' noninterest income derives from card-based payment services. This is the market that banks need to extend, protect and grow.

In technologically sophisticated countries such as Japan, mobile technology has transformed the service experience

The One Who Enrolls is the One Who Controls

The essential requirement for mobile payment and self-marketing is enrolling customers' mobile phone numbers. So far, U.S. banks have been slow to move, sometimes not even prompting for mobile credentials in new account applications or other customer service interactions. Automatic capture is not routine, and many new account application forms don't yet have a field for the mobile number. This is the case even though one-third of households across all demographic profiles no longer have landlines, and college dormitories don't have plugs for landlines. Some banks, even if they collect customers' cell phone numbers, can't record them as such in their central information files or CRM systems.

If banks want to have a serious mobile strategy, they need to turn on their automatic number identification system, then confirm mobile numbers and offer incentives to opt in when customers call their contact centers. If banks don't do this, other companies are eager to own that relationship. Right now, for example, only the wireless operators have a mobile phone number for every customer—and thus, wireless operators pose the biggest threat to banks as well as opportunity for implementing mobile payments.

These steps—capturing customers' cell phone numbers, verifying them and persuading customers to opt in—are critical for the future of mobile commerce, because "the one who enrolls is the one who controls." Simply put, the company that enrolls the customer, gets the business: controlling the interaction, the transaction and the upside potential.

Some big U.S. banks are moving aggressively now—Bank of America, for example, is enrolling 150,000 new mobile customers per month. Chase is heavily promoting its mobile Remote Deposit Capture function in nationalized television commercials. And the basic equipment is in place. Unlike popular adoption of the Internet, where modems, phone lines and computers had to be acquired, mobile phones are already in customers' hands with autofocus cameras and many other capabilities that can be harnessed for mobile payment. By the end of 2011, customers will use more smartphones than non-Internet-ready feature phones.

While banks may be tempted to wait for NFC deployment for mobile payments, they should be aware that retailers will fight to protect their "friendly tenders" and will be reluctant to bear the cost of NFC hardware at the point of sale. Moreover, new technologies, slated for release in 2011, could make NFC obsolete. Banks seeking a role in the unfolding mobile commerce ecosystem must deploy solutions that leverage the computing power and full capabilities of the smartphones that are already in the hands of their customers. Solutions are available today that require no new hardware for merchant participation, enable strong authentication and create a closer bond between bank and customer. Banks who stand on the sidelines risk disintermediation by new entrants to the payments system—not only the wireless operators but Google, Facebook and PayPal.

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The Convenience Factor

OPERATORS AND BANKS ACROSS EUROPE TEAM UP TO OFFER MOBILE PAYMENT SOLUTIONS. TO APPEAL TO CONSUMERS AND MERCHANTS, THE SERVICES NEED TO BE EASY AND PERVASIVE.

By Carsten Kress,
Sr Director,
mCommerce Sales, EMEA
Sybase 365

Consumers will adopt a new payment method only if it's more convenient than what they're already doing. Credit and debit cards are a great example. A big part of their convenience factor is that almost every merchant accepts them as payment. To create a new payment option that's on par with the convenience of credit cards will require a similar level of merchant acceptance. That's why interoperability between systems, technologies and vendors is so important.

Interoperability

Let's look at the mpass mobile payment scheme in Germany as an example. mpass allows secure Internet shopping on mobile devices and soon will extend into the real world via Near-Field Communication (NFC) technology. NFC-enabled devices can exchange data when they're in close physical proximity, allowing them to act like a mobile credit card.

In Germany, with four main mobile operators, mpass is becoming very popular because multiple operators are collaborating to offer it to subscribers.

When Vodafone initiated the mpass solution several years ago, the company recognized that although its 30 percent market share represented a lot of people, that slice wasn't broad enough to compel large numbers of merchants to join the system.

We've started to see many European banks move into the mobile banking and payment space

So Vodafone teamed up with Telefónica O2 to achieve close to 50 percent market reach. Then Deutsche Telekom (T-Mobile) joined, which increased the base to roughly 82 percent. They're now working to bring the country's fourth largest operator, KPN, into the fold, which will bring coverage to nearly 100 percent. With that many potential buyers, the mpass solution is a much more interesting proposition for merchants.

Consortiums between banks and mobile operators will enable not just domestic, but cross-border payments throughout Europe.

Germany's success with mpass is perhaps eclipsed by Telekom Austria's success with paybox austria. Introduced 10 years ago, paybox austria is now Europe's most successful mobile payment method, largely because it's fully interoperable with any mobile phone and every mobile network in Austria. It's now the second most popular payment mechanism in that country, behind credit cards.

The same more-is-better logic applies to the banking industry: you need more than one bank issuing or accepting any payment method. For example, there are 10 million inhabitants and more than 20 banks in the Czech Republic. The biggest bank has just 10 to 15 percent reach. Again, that's a lot of people, but not enough for a new payment service. The great news on the banking front in the Czech Republic is that all the mobile operators are joining forces with the country's four biggest banks to create a fully interoperable payment service big enough to compete with MasterCard, Visa and others on the market. This news is very exciting because we hope to encourage more of these kinds of consortiums between banks and mobile operators, which will enable not just domestic, but cross-border payments throughout Europe.

Banks Expand Beyond mBanking

We've started to see many European banks move into the mobile banking and payment space. Banks have realized that mobile is a very important channel that they could lose to retailers and mobile operators. Banks are teaming up with operators in smaller countries, or they're working to build their own systems.

For consumer-oriented products, we're seeing banks work together with or without the operators. But we also see banks searching for niche markets. For example, we're working with multiple banks on great ideas to reduce the necessity for cash in Fast-Moving Consumer Goods (FMCG) distribution to smaller outlets, such as street kiosks.

Banks are also moving into information technology to offer client services. Mobile alerts and notifications about bank account balance have become standard offerings for consumers, and more options are available now for corporate customers, including share price updates, investment advice for the company treasury department and others.

Many banks offer treasurers the ability to organize cash flow from a mobile device as well as interact directly with the company bank account and financials.

Market Challenges: Margins + Regulations

The biggest market challenge to mCommerce in Europe is building a positive business case. If you look into European payment options, you'll find that payments do not provide a large profit margin. Customers are not willing to pay for the payment service.

That's different than the situation in emerging countries, where cashless payments are new to many people, and they still see the benefits. In developed markets, however, cashless payments are the norm, and people don't want to pay

The payment mechanisms to buy and sell goods are coming in the next-generation Internet.

extra for a new payment option. In fact, the European Union's (EU) legislative body is trying to regulate a lower price for consumer payments in domestic and cross-border markets. That makes building a business case much more complicated over time.

Mobile payment services must also comply with banking regulations around risk awareness, data security and IT requirements.

New payment services must overcome these challenges to be successful. Multiple parties, including the handset manufacturer, channel owner, regulator, bank and technical processor, must cooperate and agree to a very low margin and multiple regulations. The good news is that even with these challenges, we're seeing successes, such as paybox austria, mpass and the new payment option in the Czech Republic.

Looking Ahead

mCommerce will be a major part of our lives in the very near future. Already, mobile applications are changing how we live, work and consume, and people are willing to pay for the apps and the services they offer. Mobile shopping is starting to happen now, with many solutions in development. The payment mechanisms to buy and sell goods are coming in the next-generation Internet.

Carsten Kress *leads the Sybase 365 mCommerce business across EMEA. Previously, Kress was sales director of paybox solutions AG and director of sales enablement and processes at Software AG. He has also worked for Maxis and Celcom in Malaysia, mobilkom, Orange and T-Mobile in Austria, Vodafone in Egypt, Royal Bank of Canada and CelExpress in North America. He has an MBA from Berufsakademie Karlsruhe / University of Cooperative Education, Germany.*

Africa The Leading Edge

SUB-SAHARAN AFRICA SURGES AHEAD IN WORLDWIDE MOBILE TECHNOLOGY IN JUST THREE YEARS.

By Farid Behpour,
Business Development mCommerce,
Sybase 365

Africa has gone from being behind most parts of the world to the leading edge of connectivity and mobile commerce technology in just over three years. Although the Internet and mobile broadband arrived in Africa comparatively late, several African cities have now leapfrogged the rest of the world to the forefront of the mobile revolution. Extensive 3G cell phone usage, WiFi/WiMax and fiber optics delivery are rapidly providing the infrastructure that Africa had been lacking.

In sub-Saharan countries especially, there are single-digit percentages of households with computers, few fixed phone lines, and often, limited access to reliable electricity supplies. However, mCommerce avoids those obstacles, because connection to the service is largely being run over USSD, SMS or in some cases GPRS/3G, which is functional and widely accessible. Even 4G networks are now in build-out phase in some African cities, which is quite remarkable considering that access to 3G / 3.5G still isn't ubiquitous in industrialized countries.

In Kenya specifically, mobile Web access is available in most population centers. The government is doing its part, sponsoring digital cities and providing broadband access in schools and villages. Competition is driving the price of telephony down dramatically. For pennies a day, you can get unlimited browsing. Students, young people (the tech savvy) and those with a relatively higher standard of living make up the core users now, but mCommerce and mBanking are the reasons more and more people are using online services.

mCommerce 2.0: Beyond P2P Money Transfers

East Africa is now seen as the Silicon Valley of mobile commerce. Kenya is the epicenter, and neighboring countries Uganda, Rwanda and Tanzania are following closely behind. The impressive innovation coming out of this market is primarily geared toward the emerging economies landscape: banking the unbanked and introducing basic financial services that hadn't been widely available before, including person-to-person (P2P) money transfers and simple bill payments.

The M-PESA branchless banking service from Safaricom, part of the Vodafone group, launched these advancements.

East Africa is now seen as the Silicon Valley of mobile commerce

Introduced in 2007, M-PESA took off at a staggering rate. The service has 12 million registered users and about 20,000 agents across the country as of late 2010. Almost half of the adult population in Kenya uses some form of mCommerce.

To be successful, though, mCommerce can't stand alone; it must integrate fully with established financial systems. We're starting to see that now. mCommerce 2.0 services are moving on from the P2P money transfers that started it all toward advanced and niche payment products, disbursements, government collections, real-time settlements, loyalty programs and mobile advertising, as well as micro insurance, micro health and micro savings. This evolution is involving the existing financial system: banks, micro-finance, community credit unions, businesses, merchants, utilities and other billers, the government and nongovernmental organisations (NGOs).

Several African cities have leapfrogged the rest of the world to the forefront of the mobile revolution

As mCommerce also takes off in other African regions, new projects can leverage the innovation coming out of East Africa and jump right to mCommerce 2.0.

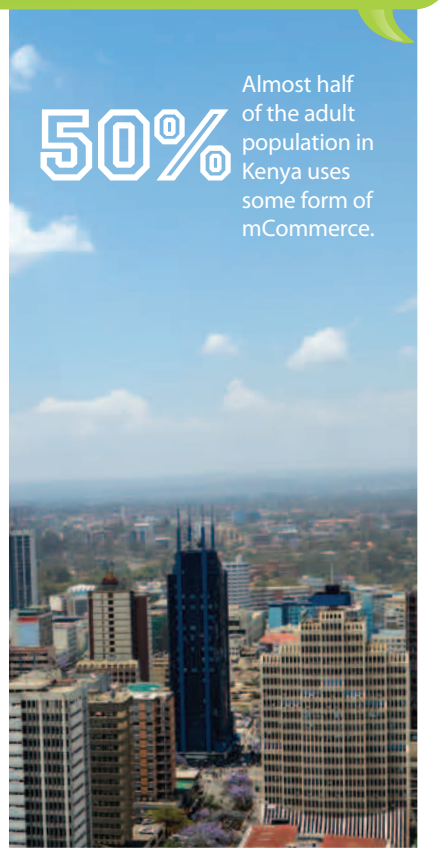
Increased Collaboration

With the statistics from Kenya's successful adoption of M-PESA, many software companies and mobile network operators (MNOs) saw the tremendous business opportunity in the mCommerce market and started their own initiatives.

Now, after only a few years, many are coming up against the time, money, and skills challenges of setting up a national network of local agents: the people who operate kiosks and offices in the towns and villages across the country selling services. The right people, with skills and experience in banking, compliance, risk and consumer and product marketing are very hard to find, and building a fully functional mCommerce solution with an agent network from scratch can take 18 to 36 months.

As a result, what started as a very competitive environment is becoming more open to sharing agent networks, collaboration, integration and white labeling (companies licensing and rebranding an existing service to make it appear as their own).

With a shared network, mCommerce service operators enable the agents across the country to act on behalf of multiple parties and services. Regulators are working now to ensure that a shared network will be safe for consumers. Once that's been resolved, the agents can start to run national, continental and even international remittance services, cooperating with all other compatible networks and sister projects.



Interoperability

MNOs have historically designed their mobile money services as an on-network-only business. However, the projects in the pipeline now are almost entirely independent, agnostic services, so they'll work on any mobile handset on any network-similar to how Visa and MasterCard work on the automated teller machine (ATM) networks.

For example, MobiKash launched a pilot of the first intra-region, network-agnostic, bank-agnostic mCommerce solution for sub-Saharan Africa in September 2010. It's available to all users, irrespective of their MNO. MoneyBox Africa, based in Nigeria, is another independent mCommerce system that will work on any mobile phone.

Getting Started in mCommerce

This industry is hot right now, with almost unfathomable business potential. Technology is changing so fast, it's hard to know what's around the corner.

For those businesses just starting out, take heed: mCommerce may look easy from the outside, but navigating regulation, connectivity and building an agent network is a difficult thing to do. So, at this point, the key is to identify a differentiator, a reason why consumers would choose your company's solution over another.

The time to market for mobile money services is two years on average, with variations depending on the country of operation. The minimum investment is $5 million to $15 million, where the majority of the expense is in service promotion, product and agent network. Each agent has to be trained and each location has to be branded. To function, each agent has a "float balance" of cash and e-money to use as collateral during each business day. That's a stumbling block for many service operators because managing that distributed web of "float" is dynamic and complex, hence requiring a specialized skill set. If there's too much or too little cash or electronic money with an agent, the agent can't perform related cash-in / cash-out functions.

mCommerce is a complicated industry and takes a considerable upfront investment of money and time. All in all, it's possible to get to a return on investment (ROI) in 18 to 24 months. To achieve significant consumer penetration, durable development, market innovation and profit, three to five years is a realistic timeline. mCommerce is a tremendous business opportunity, but it does take years of dedication to build a successful operation.

Farid Behpour *has 25 years of international business technology and telecommunications experience. He holds an MBA in International and Export Procedures from C.E.S.I. and a BA from Manchester Business School.*

Two Regions Two Approaches

NORTH AFRICA AND THE MIDDLE EAST: COMPANIES BUILD MCOMMERCE SERVICES TO ADDRESS THE UNIQUE NEEDS OF DIFFERENT REGIONS

By Moatasem Osam,
Director of mCommerce Business Development for the Middle East + North Africa,
Sybase 365

Innovation shouldn't be imported

mCommerce has great potential in North Africa and the Middle East, as most countries in the region are still developing. However, mobile services are only in the early stage of build-out. In these two regions with vastly different demographics, the most popular mCommerce services are those that have been tailored to best serve the population.

mTopUp Gains Subscribers in North Africa

North Africa consists of Egypt, Libya, Tunisia, Algeria and Morocco. As in many emerging economies, mobile phone penetration is high, and most phones are prepaid. The first step toward mCommerce in these countries has been mobile top-up, which is the way a person adds credit to a mobile phone account.

Mobile top-up, or mTopUp, services started to appear in 2006 and now account for 50 percent of all top-up in the region. Vodafone Egypt mTopUp services launched early 2007, and include direct top-up for prepaid accounts that you can buy from retail shops or even on the street from independent resellers.

In a region where 80 to 90 percent of

Mobile top-up, or mTopUp, services started to appear in 2006. (Africa)

the population is "unbanked" (does not possess a bank account) and established financial institutions don't see mobile money as a profitable venture, many mobile network operators (MNOs) and other young companies see lots of opportunity in providing low-cost mobile money services.

Services such as simple accounts and bill payment have been slower to develop, as they require cooperation from regulators, banks, MNOs, payment providers and merchants to deliver a solid value proposition to the end customer, but they are in the works. Vodafone and Mobinil, the two biggest mobile operators in Egypt, plan to launch mobile payment services in 2011. The Egyptian company Masary, a payment service provider, is implementing mobile payment services that will be targeted to the unbanked.

The focus here is on building an infrastructure for international mRemittance. (Middle East)

The Middle East + Remittance Services

Kuwait, Qatar, the United Arab Emirates (UAE), Oman, Bahrain, Yemen and Saudi Arabia make up an entirely different demographic than the North Africa countries. In this region, 70 to 80 percent of the population is banked. Rich in cash and still developing, these countries rely on foreign labor from India, Pakistan, Egypt, Bangladesh, the Philippines and others. The workers send roughly 90 percent of their wages to family members in their home countries, so the focus here is on building an infrastructure for international mRemittance.

A bank in Qatar is working now to provide mBanking and mRemittance services. Customers will be able to access their accounts through a mobile phone to do basic banking as well as local and international remittance.

Al Fardan Exchange in the UAE has provided remittance services for many years, and it recently extended those capabilities to include mRemittance.

Stick to What You Know

For those looking to build a solid partnership for delivering mobile services, I offer this advice: stick to what you know. mCommerce services work best when they're the result of collaboration between financial institutions, payment service providers and MNOs, with each entity focusing on its core business. Banks can rely on "float," the value they receive from holding funds. MNOs can expect traffic revenues from SMS and data access, monetizing their communication channels. Payment service providers can get a transaction fee from the user.

Projects become muddled, inefficient and stunted when the MNO charges interest and the bank charges for traffic. For the best results, each partner should stick to its area of expertise.

Nurturing mCommerce Innovation

As we see with the mCommerce developments in North Africa and the Middle East, innovation shouldn't be imported. It should—and will—arise from individual regions, each with its own culture, needs and infrastructure. Within the next 10 years, the Middle East, North Africa and other emerging areas will be inventing their own innovative services, each contributing to the development of this rapidly changing industry.

***Moatasem Osam** is recognized as an mPayment expert, speaking and publishing regularly on mobile topics. As Director of Business Development, MENA for Sybase 365, he launched the first international mobile money remittance service in the Middle East between UAE and the Philippines. Prior, Osam was the Head of Payment Services of Vodafone Egypt, where he launched the first mobile eTopup and mobile virtual wallet propositions in the Middle East. He has also held positions at IBM Egypt, Schlumberger Syria and Philips Saudi Arabia. Osam started, and is now the Chairman of, Mawadda Charity and Community Development, an NGO in Egypt. He holds an MBA from Maastricht School of Management in Holland, and a B.Sc. in Electronics and telecommunications from Ain Shams University, Egypt.*

New Heights for mBanking in Nepal

OVERCOMING THE CHALLENGES OF A POOR INFRASTRUCTURE AND DIFFICULT TERRAIN, NEPALESE TURN TO THEIR MOBILE PHONES TO DISCOVER MBANKING.

By Sanjay B. Shah,
Co-Founder,
Finaccess Private Limited

In the rugged, mountainous landscape of Nepal, banking can be an arduous and often impossible task. The harsh northern section of the country has eight of the world's 10 tallest mountains, and 90 percent of Nepalese villages lack roads, postal services, or landlines for communications. While Nepal has more than 200 financial institutions, not even the largest among them can claim even a double-digit percentage of market share. According to recent estimates, Nepal has fewer than three million bank accounts for a growing population of more than 29,300,000. Trailing behind all South Asian countries except Afghanistan, Nepal provides only 7.53 bank branches for every 100,000 adults.

For those who have bank accounts, transactions are costly in terms of transaction fees and time spent reaching a bank. Unless a resident lives in an urban area, traveling to the nearest bank branch could take days, if not weeks. Because of these circumstances, Nepal functions as a predominantly cash-based society, which is inherently more expensive to its economy than an electronic banking system.

Mobile Technology Rising

This shortage of brick-and-mortar banks, combined with lack of power and communications infrastructure, is driving the need for innovative changes to the financial ecosystem in Nepal. One integral piece of the solution--the mobile phone—is gaining momentum.

Based on recent estimates, 38 percent of the population uses mobile phones. According to the Nepal Telecom Authority, the year-over-year growth rate of mobile phone users is 60 percent. If that growth is maintained, more than 60 percent of the population will have mobile phones within two years. Giving the move to mobile an added boost is the demographic of the Nepal population: 70 percent of Nepalese are between 17 and 25 years old, a bracket that tends to look favorably at adopting new technology.

To date, the mobile infrastructure is keeping pace with consumer mobile phone adoption, providing access in locations never thought possible. For example, telco Ncell in fall 2010 installed 3G cell phone antennas at Mt. Everest base camp, giving users cell coverage to the 29,035 ft. summit.

Serving the Unbanked

The mobile phone surge in Nepal is spawning new financial services targeting the banked and the unbanked. One such service is Hello Paisa, developed by Nepal's Finaccess, which is in its early stages of rollout. The Finaccess platform is provided as a managed service to banks and financial institutions and is connected with the three main mobile networking operators in Nepal. The model supports the underserved base of the economic pyramid (BOP) market in Nepal, where millions have limited—if any—financial services.

Before rolling out the service, Finaccess gathered input from banks and local agencies working to solve the access-to-finance divide, a challenging issue unique to Nepal. Serving that market requires a shared access model that is complex on the backend, yet simple for users to understand on the front end. Since many in the BOP are illiterate, the concept of "orality" and "numerate" have been

With multiple banks and mobile networking operators all on the same mBanking platform, the potential of mobile financial services reaches a new dimension in Nepal

Giving financial access to all people in Nepal is an important step toward the elimination of poverty

incorporated into the mBanking system, which uses interactive voice response (IVR) to capture user personal identification numbers (PINs) for transaction authentication and numbers-based SMS commands for transaction requests.

Unlike the situation in many areas of the world where the neutral, third-party service provider owns the wallet, the wallets are owned by the individual financial institutions that join the Hello Paisa network (as partner banks). Finaccess sets up partnerships with organizations of various categories and types, including:

- Financial institutions
- Government institutions for delivery of government to people (G2P) payments
- Mobile and fixed line operators
- Merchants, distributors, and customer brands
- Commercial entities that want to mobilize customers to simplify their commercial, financial and payment habits

With multiple banks and different mobile networking operators all interoperable on the same mBanking platform, the potential of mobile financial services reaches a new dimension in Nepal.

Financial Access for All

The early stages of mBanking in Nepal include P2P remittance transfers, allowing users to send and receive money from and among any mobile phone. International remittance directly to a mobile wallet account will also be possible. They can perform basic banking functions, and pay for goods and services. The government, army and police can pay salaries to people in remote locations. Most importantly, giving financial access to all people in Nepal is an important step toward the elimination of poverty.

As mBanking progresses, services will allow for person-to-business (P2B) transactions and business-to-business payments. And users will be able to pay bills for services such as water, cable TV, school fees and electricity, all from their mobile devices.

INEXPENSIVE TRANSACTION SERVICES: HELLO PAISA

Hello Paisa is a mobile financial transactional service available to any person in Nepal with a valid mobile phone. Interoperable among banks and networks, Hello Paisa runs in partnership with participating financial institutions but maintains an independent brand. A Hello Paisa mobile bank account is configured so that users can receive funds from anywhere in Nepal directly to their mobile handset. Users can also send funds directly to their bank accounts or between Hello Paisa accounts.

The Hello Paisa transactional service allows customers and businesses to transfer, deposit and withdraw money between each other via their mobile phones at low cost. Users are not charged a monthly fee charged for holding a Hello Paisa wallet. Customers access their money via their designated mobile phones, and their funds are stored in a government-regulated bank.

Customers can sign-up for free for the Hello Paisa services by completing an application form with registered Hello Paisa operators or agents. The agent provides the customer with a mobile wallet, called "Hello Paisa," which allows them to use their mobile phone in much the same way as a bank account debit card. The service is supported on all handsets, including ultra-low cost handsets.

Since Finaccess is not functioning as a bank, it offers its Hello Paisa network as a service to financial institutions as a neutral party. The service has been mapped to meet the regulatory environment of Nepal and as such, Finaccess does not fall under any regulatory purview, as it does not create any monetary value or touch any of the funds within the Hello Paisa system. At all times these funds are with the financial institutions and belong to the customer, not Finaccess.

Sanjay B. Shah *has more than 18 years of investment experience in multiple sectors, including banking and insurance. Working in South Asia, East Africa and the United States, Shah has a hands-on understanding of BOP and majority markets, including the ability to design, develop and implement business models. He is the founding promoter of Bank of Kathmandu Limited (Nepal) and the founding promoter of the International Leasing & Finance Company Limited (Nepal). He is also VP of the Nepal Scandinavia Chambers of Commerce and on the Industry Board of Directors of NLG Insurance Company, Limited.*

Diverse Payment Ecosystems Taking Shape

AS IN OTHER AREAS OF THE WORLD, MCOMMERCE HAS MATERIALIZED DIFFERENTLY IN DEVELOPED AND EMERGING COUNTRIES ACROSS THE ASIA PACIFIC REGION.

By Matthew Talbot,
Senior Vice President, Mobile Commerce,
Sybase 365

The Asia Pacific region is a fragmented market with a mixture of developed economies, emerging economies and everything in between.

In Singapore, for example, the mobile operator SingTel has launched a payment solution for merchants, where consumers can make mobile payments that get debited directly out of their bank or credit card accounts. The first merchant to sign up was the Singapore government Land Transport Authority (LTA), which issues the country's car licenses. Drivers can now buy an electronic "day license" with their phones via the MobileP@y service.

Banks in Singapore have also seen success with mobile banking. Every bank in the country offers a suite of online and mobile banking solutions, and now up to 50 percent of customers who were using Internet banking now use mobile.

There are also several Near-Field Communications (NFC) pilots in Singapore, where users can simply tap their phones on a sales terminal to pay for goods and services.

Many operators and banks are now looking to mobilise that international remittance transaction

Mobile finance is creating a whole new ecosystem for payment and economic growth.

A New Financial Ecosystem

Across the border in Malaysia, the mobile operator Celcom launched its AirCash solution, which provides subscribers with mobile wallets linked to their phones. Subscribers can walk into approved retail outlets and hand money to an agent to be credited to the "wallet" on their phones. Once the money is added, the subscriber can send person-to-person transfers domestically or international remittances to the Philippines, Indonesia or Bangladesh; pay bills or top up a prepaid mobile account.

In emerging markets all over Southeast Asia, adoption rates for mCommerce services are high. Because other payment mechanisms are not widely available, mCommerce is replacing cash on the street. Launching a mobile payment initiative is usually the first or second priority for operators in these regions, because they recognize how willingly people embrace the new systems and, in many countries, the mobile operators' brand is stronger than that of the banks.

Additionally, agencies such as the World Bank and the Bill & Melinda Gates Foundation are offering financial incentives to companies that launch banking services to the unbanked. Mobile finance is creating a whole new ecosystem for payment and economic growth. It's enabling micro loans and credit and otherwise providing much-needed liquidity to these markets.

Emerging Trends: Remittance + Bill Payment

All over the Asia Pacific region, migrant workers cross borders to find jobs and then send their earnings back home. Many operators and banks are now looking to mobilise that international remittance transaction. Instead of walking into a traditional remittance shop such as Western Union or MoneyGram, consumers will be able to transmit funds through their devices, from their own mobile wallet to a family member's mobile wallet. At the same time, Western Union and MoneyGram are also moving into mobility and enabling their services via the mobile.

Axiata Group Berhad, one of the largest Asian telecommunication companies, launched a hub that can connect its operator groups, enabling them to complete transactions as a group to provide consumers with international remittance, pre-paid mobile phone top-up and bill payment.

Bill payment, both from mobile operators and banks, is another big trend across Asia. Consumers are rapidly

adopting the idea of using their phones to pay bills, especially in countries where the new mobile payments can replace the requirement to walk for hours or ride a bus into town to pay bills. Mobility is simplifying lifestyles in emerging markets.

Linking Systems Together

The next big opportunity in Asia Pacific is linking disparate systems. Europe has had success with this "interoperability" strategy, first with Telekom Austria's paybox, next with the Vodafone/O2 mpass solution in Germany, and soon with another due to launch in the Czech Republic. Instead of every bank or operator launching its own mobile payment service, there's just one for the whole country and everyone can use it at participating merchants. It's an idea similar to the Visa and MasterCard systems.

Asia is following suit. Mobile operators have been trying to do these things on their own, but they see how the most successful models are interoperable. At the same time, banks are realizing that they also have a part to play. In the next 12 to 18 months, countries will be adopting single mobile payment solutions.

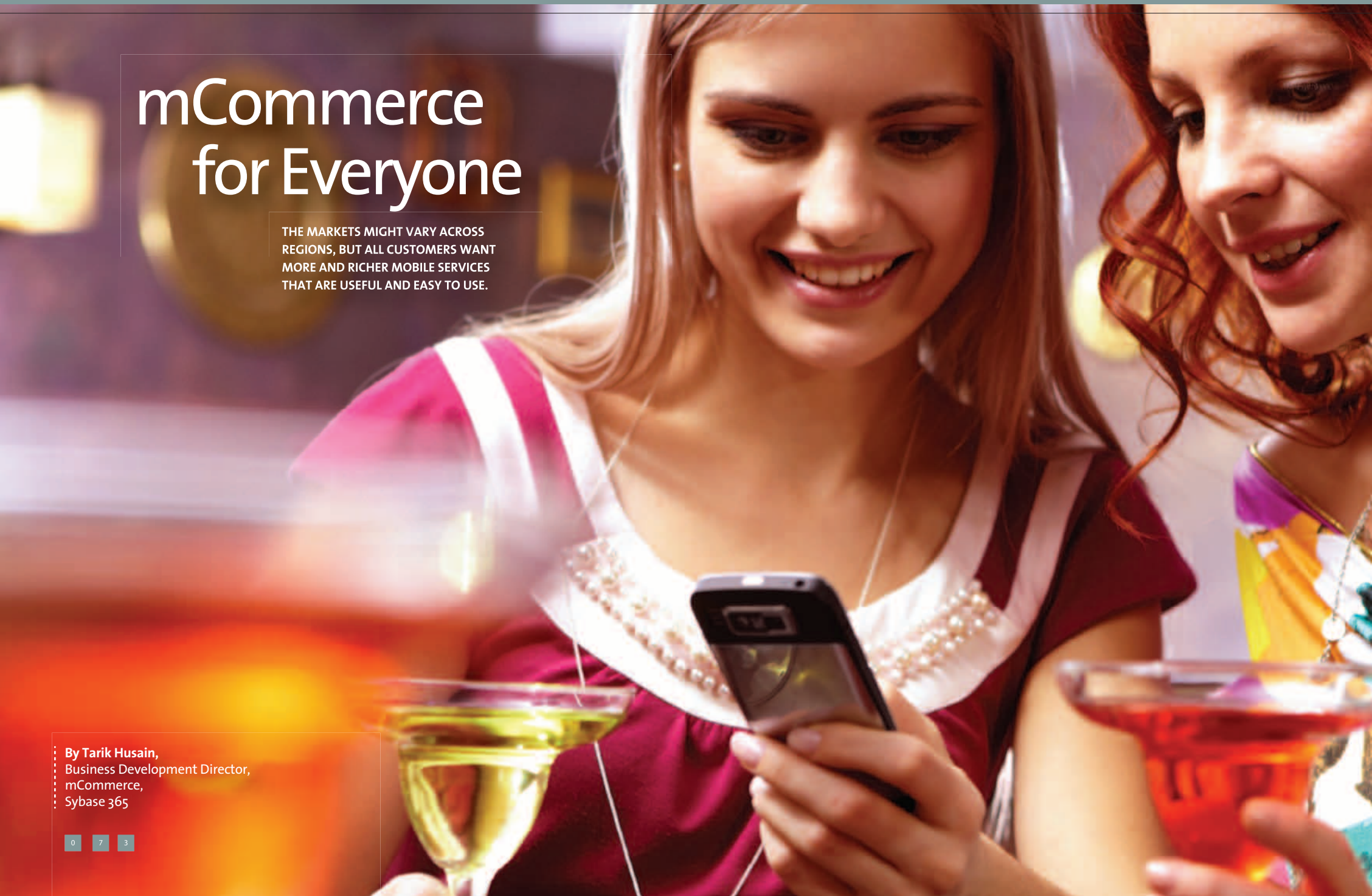
The next big step will be the ability to transfer money across borders, to both banks and operators in mobilised countries. That's a big part of the Sybase 365 traditional business, which started with interconnecting operators around the world for SMS and MMS messaging. The next step is doing the same thing with payments.

The many countries in the Asia Pacific region are at vastly different stages of regulating the mCommerce market. Additionally, these new partnerships between mobile operators and banks cut across several areas of regulations, so it can be complex to develop and roll out the new services. That's where Sybase is helping to bridge the gap, bringing telecoms and banks together to create functional and lasting payment ecosystems.

Matthew Talbot *is senior vice president of Sybase 365 Mobile Commerce division. Previously, Talbot was CEO of MIG, a leading wireless application service provider. He holds a bachelor of business and bachelor of arts (Chinese) from Deakin University, and a graduate certificate in e-commerce from Monash University, Australia.*

mCommerce for Everyone

THE MARKETS MIGHT VARY ACROSS REGIONS, BUT ALL CUSTOMERS WANT MORE AND RICHER MOBILE SERVICES THAT ARE USEFUL AND EASY TO USE.



By Tarik Husain,
Business Development Director,
mCommerce,
Sybase 365

Technology has simplified transactions and made it easy to deliver rich content to mobile customers

Many people think mCommerce will happen at some point in the future, but mCommerce is happening right now. It is in its infancy everywhere, and each country has a different market experience based on people's needs. In Japan and Korea, people use their phones for everything from ticket and vending machine purchases to mobile banking. Migrant workers in Bangladesh might need basic banking and bill payment, while suburbanites in Australia would be more apt to sign up for point-of-sale (POS) purchase capability. Although service offerings in Thailand differ from those in the Philippines, and those in Europe and the United States are different again, mobile technology is open enough to adapt and customize services without making any major changes in architecture.

For example, Australia has an established banking environment and many people have chequeing and savings accounts; the goal of mobile banking in Australia is to provide a rich customer experience in a cost-effective format. Banks want to get away from the call center, which is an expensive way to interact with customers. Twenty years ago, the Internet was the next—and less expensive—step. Today, the mobile channel is the next big thing in banking. Mobile phones are an effective customer relationship management (CRM) tool, and more importantly, banks have realized that the mobile channel is a viable way for customers to manage accounts, pay bills and get general information—and for the banks to send offers and updates.

Technology has simplified these transactions, making it easy to deliver rich content to mobile customers. With smartphones, for example, customers simply press a button when they want to take an action; before smartphones, customers had to interact with providers using text-based messages. The new interfaces are improving customer satisfaction.

Banking for Everyone

In Thailand and the Philippines, many people don't have bank accounts. Historically, banks haven't provided services for customers who earn $40 a month, because they couldn't do it cost effectively. However, even people with low incomes need to save money to make larger purchases, such as spending $200 for a cow.

The mobile phone has revolutionized banking with the idea of the "mobile wallet." If the consumer has a phone, the bank doesn't have to supply a plastic card. All that's needed is a bank account number and a place to store the money. This simple arrangement makes banking available to anyone, because the massive market pays for the infrastructure. In these countries, market demand—not a government or organisation—has moved mCommerce forward.

In one isolated place in the Philippines, for example, the closest ATM is 1.5 hours away by boat. Many workers from this area move to cities and send funds back to their families. However, cash sent through the mail was frequently stolen. Obviously, this area desperately needed the ability to bank by phone—and the service was offered. Now money can be transferred directly to the store where families shop, and no funds are lost.

In the retail channel, it's the same paradigm. Large retailers in Australia might have POS systems for either cards or cash. But the guy selling snacks out of a stall on the street does not have a POS machine. Now, a small vendor can have a virtual POS machine on his phone and accept payments. mCommerce is bringing success to smaller merchants.

Keeping the Customer in Mind

In Australia, all banks have looked at mobile channels. They aim to reinvigorate services and identify opportunities with a goal of providing a more customer-centric view of what services to offer and how to

mCommerce success has been measured partly by the convenience factor—using a mobile phone to make a payment is faster and simpler.

improve the user experience. For example, with bill payment, what works is a compelling call to action. When customers receive the notice of a bill, they might also get a message asking, "Do you want to pay now?" The best solution is to provide a button that says yes, rather than requiring the customer to go to the application.

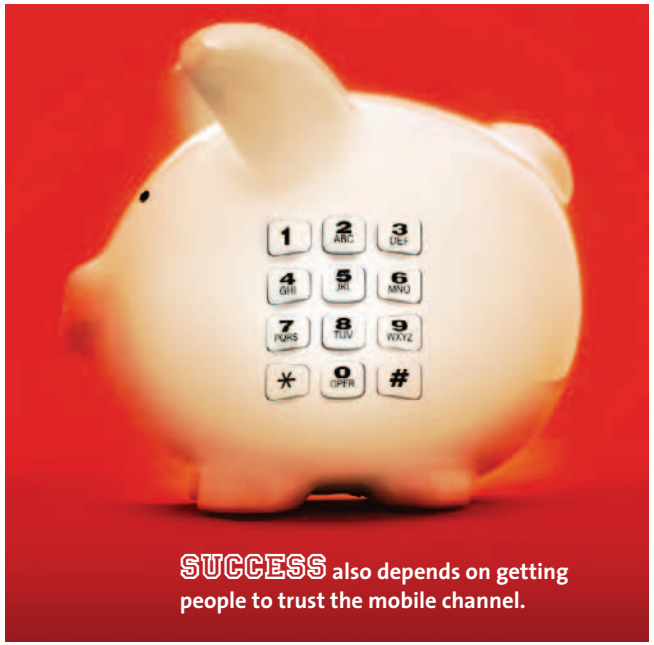
mCommerce success has been measured partly by the convenience factor—using a mobile phone to make a payment is faster and simpler. Today, most people carry around a mixture of cash, credit cards, debit cards, reward cards and IDs in their physical wallets. But imagine leaving the house with a mobile phone that has a stored value account-essentially cash. With just the phone, it's possible to drive and park (and pay from the stored value), go to dinner (which is linked to an account), buy a television on the way home (which is charged to a debit card) and have all these purchases linked to an airline rewards program. And the mobile phone handles everything. The mobile service is both more convenient for consumers and less expensive for providers, who can issue a virtual card and do not have to maintain a physical, plastic card.

Building Success

Many operators have launched services, but not all have been successful—the uptake has not been nearly what was expected. Many obstacles still must be overcome. Operators must establish a pseudo-bank look and feel, which takes them out of their depth. Some banks have also launched services without sufficient research—maybe they launched bill payment for people on the go, but in reality people didn't pay bills on the train. In some cases perhaps the technology was limited in the way it looked, so it didn't encourage customers to use the service. In addition, operators and banks need to form an ecosystem. A group of operators should come together and build a system that gives them a common look and feel, such as Visa has done with credit cards.

Success also depends on getting people to trust the mobile channel. Many potential users don't think their money is safe. They fear that if they lose the phone, they'll lose their money. But they won't. The phone is like losing a plastic card—if you lose it, the money's still in the bank. It's an understandable reluctance. It's asking people to trust their mobile operator rather than the banks with their money.

The bottom line is satisfying customers—and sometimes, making the customer happier can shift traditional relationships. For example, a cereal manufacturer normally does not have a direct relationship with the customer, but with the retailer. However, if a manufacturer invites feedback from customers, it can establish a one-to-one relationship with them. Manufacturer can then leverage that relationship to market directly to their purchasers when they launch new products or change nutritional contents. And the loop is closed if, for example, the manufacturer gives the retailer specific discounts or offers based on location-based queries the manufacturer received from customers.



SUCCESS also depends on getting people to trust the mobile channel.

The market is in the wild west of mobile implementation now, and learning is constant. One lesson: it's the same iPhone everywhere. It's common across every country. It can be applied everywhere; only the business aspect needs to be different. The SMS basic functions from years ago are still applicable, but now banks and operators can add more applications. The market is in evolution rather than reinvention.

Opportunities are everywhere, and every aspect of mCommerce is growing—from payments to transfers to mobile CRM opportunities. As consumers and institutions demand more, the mobile channel will deliver more feature-rich applications and a much fuller experience.

Tarik Husain *is the business development director for Sybase 365's Mobile Commerce division, where his responsibilities include managing global strategic partnerships and formulating strategies for Sybase 365's global mobile banking, mobile payments and mobile remittance business. Previously, Husain held senior positions at the Bank of England, Lasalle Banks, OCBC Bank and Hewlett Packard. He provides industry commentary to internal and external publications and is a regular presenter at banking conferences.*

Connecting the Dots in the Developing World

MOBILE PAYMENTS ARE TRANSFORMING THE WAY PEOPLE INTERACT WITH MONEY AND CHANGING THE LANDSCAPE OF FINANCIAL SERVICES.

By Menekse Gencer
CEO, mPayConnect,
Managing Partner,
Arc Spring Group

More than 170 mCommerce initiatives are underway worldwide

Safaricom's revolutionary M-PESA solution in Kenya has gotten the world's attention. A mobile person-to-person money transfer service, M-PESA became tremendously popular in a region that has historically lacked access to financial infrastructure.

After only three years of operation, Safaricom has a proven business model, claiming more than 13 million users and handling transactions valued at $400 million each month. It has opened up the doors of emerging market economies, mCommerce and financial services in an extraordinary way.

More than 170 mCommerce initiatives are underway worldwide, many in developing countries that have lacked substantial financial services inclusion. A variety of business models exist. Mobile network operators (MNOs), banks, micro-finance institutions (MFIs), and third parties are driving efforts based on the dynamics of the market.

Even with so much success and innovation, building out an mFinance ecosystem will be challenging

Second-Generation mCommerce Services

In Kenya and other countries that are leading the way, we're now seeing the next wave of infrastructure and financial services options, such as Syngenta Foundation's Kilimo Salama micro-insurance program for farmers. Kenya residents are relying on this and other services supported by the M-PESA "rail," or system. The rail reduces the cost and inconvenience of managing cash, which made insurance and other kinds of offerings prohibitive in the past.

In Zambia, Mobile Transactions has developed a mobile voucher program that supports the United Nations World Food Program (WFP). This platform leverages scratch cards and mobile phones to allow supply chain participants to electronically settle back-end payments associated with voucher-based food dissemination. Rather than waiting months for reimbursement by the WFP, distributors now can be paid within minutes of delivering food by simply entering the voucher code into their mobile phones. This code triggers an immediate electronic settlement into the distributors' mobile money accounts.

As more non-governmental organisations (NGOs) like WFP recognize the efficiencies that mobile services provide, we'll see more expansion both geographically and vertically. For example, the same sort of scratch-card, mobile voucher and electronic settlement system will be of benefit to health providers in the future.

Additionally, mBanking accounts provide access to new financial services that can reduce risk and increase investment opportunities. Someone can open an account and use it to develop a financial history, and then use that history to gain access to other financial services, including credit, savings, and insurance for products and services that were previously cost-prohibitive. New "pay-as-you-go" models that are triggered by remote mobile payments are also available, mimicking car leases in developed markets.

For example, Simpa Networks has developed a lease-to-buy model for solar panels that target people living in rural areas who lack access to electricity today. Rural villagers, who previously could not afford the upfront costs of a solar panel purchase, can now pay as they go, using mobile payments as the method to turn the solar panel on. Over a period of time, customers pay off the solar installation. This simple, ingenious solution brings affordable, reliable electricity to areas that haven't previously had it.

Challenges Lie Ahead

Even with so much success and innovation, building out an mFinance ecosystem will be challenging. We can't simply replicate the same model in every country because of different dynamics, regulations, established distribution channels and so on.

Another challenge is interoperability. In markets unlike Kenya that have multiple MNOs, but none that is a dominant leader in the marketplace, mobile payments interoperability among payments systems will be critical to achieve network effect and scale. With this new wave of services, handling security, fraud risk and identity management is becoming more important.

A couple of years ago, the Indian government did a survey of its database for food ration cards. They found 1.7 million faulty and bogus accounts. In one case, they found 901 records of the same person. As adjacent industries launch their own mobile services and seek to integrate with mobile money, it will be critical to leverage common platforms around security, fraud, risk and ID management.

Mobility: Communal Touch Point?

Whether we're talking about governments, businesses, NGOs or private health agencies, these various sectors share foundational blocks, including organisational infrastructure and policy concerns. As we become increasingly digitized, these areas of commonality become more prevalent and important.

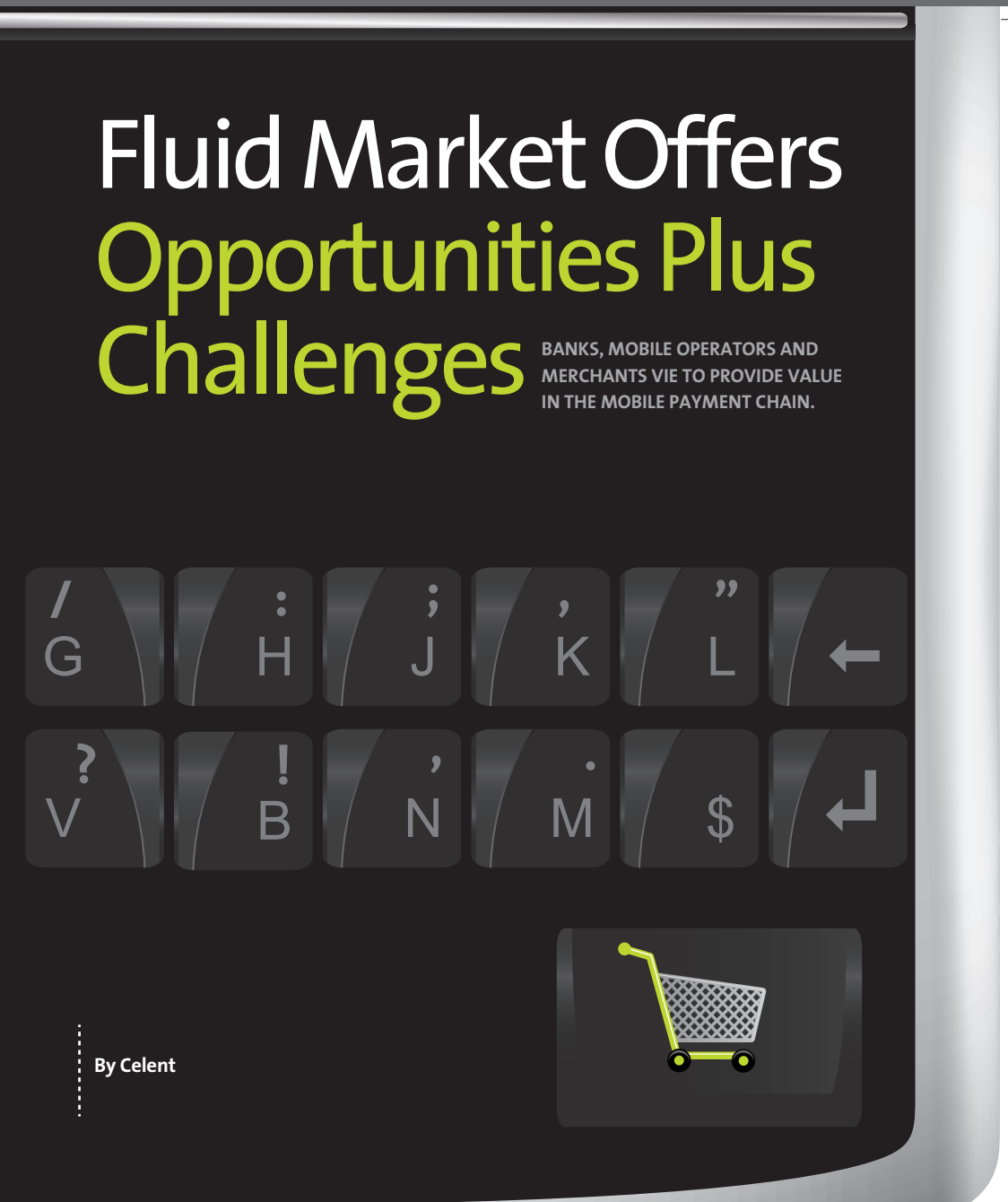
A business will not be able to enter a market by providing services to people who earn $2 a day unless the cost structures are extremely efficient. These efficiencies become greater across vertical industries that share common building blocks. It's imperative to find the commonalities with other value chains to achieve cost reductions if the poor are to be served. For example, there may be opportunities to leverage agents in the field that serve the poor for various industries. It is possible, for example, that healthcare workers could register their patients for mobile money services.

Mobile finance is already fundamentally changing people's lives in the developing world. We know there is demand for even more services in mobile payments, banking and commerce. By intelligently meeting the scalability, interoperability, security and value-chain challenges, mobility can continue to empower emerging economies, bank the unbanked, increase the efficiency of aid programs and deliver basic financial services to people who haven't previously had access.

Menekse Gencer *is a mobile financial services specialist who advises banks, mobile network operators and third parties on go-to-market-strategy, product design and business development. She's the founder of mPay Connect, a consulting service for clients seeking to launch mobile payments, and Arc Spring Group, an advisory service comprised of mHealth and mobile financial service experts. Her market expertise extends from North America to emerging markets such as Bangladesh, Jamaica and sub-Saharan Africa. Previously, she led PayPal Mobile's business development in North America and closed PayPal's first mobile network operator deal to launch PayPal Send Money on Sprint.*

Fluid Market Offers Opportunities Plus Challenges

BANKS, MOBILE OPERATORS AND MERCHANTS VIE TO PROVIDE VALUE IN THE MOBILE PAYMENT CHAIN.



By Celent

2010 may enter the history books as the first time the financial service and mobile telephony industries finally began to do more than talk about the introduction of mobile contactless payments. Sometimes referred to as mobile Near-Field Communication (NFC) payments, these products have long been envisioned by banks, payment brands and mobile operators as a lucrative way to leverage mobile technology.

The common view held by analysts, industry experts and operators is that globally, mobile payments will represent trillions of dollars within a decade, which could translate into tens of billions of dollars of interchange-like revenue for mobile payment card-issuing institutions.

Mobile payments' potential has led to a clash of business models among industries; banks, payment brands and mobile operators see themselves as justified recipients of mobile payment revenues. Lengthy inter-industry discussions to unearth mutually beneficial business arrangements have impeded progress, to the point where industry players are pushing ahead with their own, differing approaches.

Banks will find success by focusing their efforts on being a major part of the mobile commerce value chain

During 2010—in the United States alone—some leading banks launched mobile NFC pilots using micro Secure Digital (SD) card technology, and other major banks piloted NFC stickers. Three of the top U.S. mobile operators (AT&T, T-Mobile and Verizon) announced the formation of a mobile payments joint venture, and technology firms (Apple, Facebook and Google) expressed varying levels of interest in entering the fray. In the European Union (EU) region and Canada, a number of NFC pilots and alliances have already taken place or been announced.

Given the tumultuous state of the mobile payments ecosystem, bank managers face the challenge of dealing with a market that is extremely fluid and offers huge opportunities (and potential threats). Many of these banks have taken a "wait-and-see" approach, which defers budget, IT asset and other resources to a future, undefined period. In the fast-moving banking technology space, such deferrals can impact a bank's ability to maintain or build long-term competitive advantage.

Four Steps of Mobile Commerce

Fortunately, concrete mobile contactless payments lessons can help assist with the planning process. These lessons can be gleaned from markets outside North America and the EU, where such payments have been commercially available for years. Specifically, Japan and Korea offer market knowledge that is not only well-grounded in terms of experience, but also is quite consistent.

Based on 2010 research, Celent found that banks, payment brands, mobile operators and payment service providers unanimously viewed that mobile payments are relatively unimportant to consumers and merchants alike, that such payments are a commodity. Rather, these companies all viewed the value-add opportunity as being able to enhance mobile commerce, which has numerous steps, only the last of which is actual payment.

The four steps are:

1. Product discovery. Consumers use a mobile device to research or gather information about a product's features, ingredients, usage, suggested retail price and so on, while the consumer is in-store. The same functionality may be used to find information about similar or competing products. This step is enabled via different mobile input methods, including bar code scanning, photo capture, voice recognition and application/browser product name entry.

2. Product comparison. Consumers often rely on a mobile phone to compare a product's pricing and availability at various retail locations, including brick-and-mortar and on-line stores. This comparison may be automatically rendered via the previous step (product discovery) or by stand-alone Web connectivity.

3. Value maximization. Consumers use a mobile phone to identify incentives toward the purchase of a product. Examples include manufacturer- or merchant-provided coupons, rebates and rewards / loyalty points. If these incentives are sufficiently large, they could tip a consumer's purchase decision in favor of at a given store, which makes them very interesting to merchants. This capability will be enabled by connectivity to cloud-based manufacturer / merchant campaign engines that create dynamic incentives based on time and location. Banks could participate in these campaign engines as de facto merchants, offering incentives to use payment cards—if one bank's credit card offers bonus points for a given transaction, such incentives could nudge a consumer toward its use. In the NFC context, incentives would be accrued and redeemed via an application download onto the chip set of a mobile phone, which would in turn be tapped on the merchant's contactless terminal.

4. Payment. Once consumers have learned about a product, found the best retail price and maximized any incentives, they must pay for that product before taking it home. With NFC technology, this step will be completed by consumers tapping their mobile phones on a store's contactless terminal, for the product price net of any discounts and rebates. From that point on, the purchase will be processed like any credit- or debit-card transaction.

What Role will Banks Play?

These steps are in their early stages of development, but partial functionality is already available. (Amazon.com is an example provider.) However, if combined and done correctly, these functionalities will essentially lead consumers to a purchasing decision, including which payment type to use. With so many moving parts, the battle for mobile commerce will be fought over who controls of as many of these steps as possible.

The danger to banks is that after decades of being immersed in the payment card business, they fail to recognize the power and intelligence inherent to mobile commerce. Should banks adhere to their traditional role and focus only on the payment step, they run the risk of other companies determining which payment types are used by bank customers. Banks need to recalibrate their views of mobile commerce. Rather than allocating resources toward putting payment cards inside phones, banks will find success by focusing their efforts on being a major part of the mobile commerce value chain.

Celent *is a research and consulting firm focused on the application of information technology in the global financial services industry.*

Building a Complete mCommerce Service

CONSUMERS ARE WILLING TO PAY FOR SERVICES THEY NEED. COMPANIES MUST ENGAGE CUSTOMERS FROM SERVICE AWARENESS THROUGH RETENTION.

Ask a hundred people for the definition of mobile commerce, and you'll get a hundred answers. Just in this mobile commerce guide alone, you can see that each author has a particular emphasis or take on what is a mobile commerce service. So for sake of clarity, **here is my take.**

By Diarmuid Mallon,
Sr Product Marketing Manager,
mCommerce,
Sybase, an SAP Company

First, there are mobile financial services, which include mobile banking, payments and remittance. Banks typically offer mobile banking so their customers can access their finances on the move. Mobile payments enables the mobile device to act as a payment instrument for real-world goods and services and person-to-person payments. Finally mobile remittance is a special case of a person-to-person payment with the payment crossing an international border.

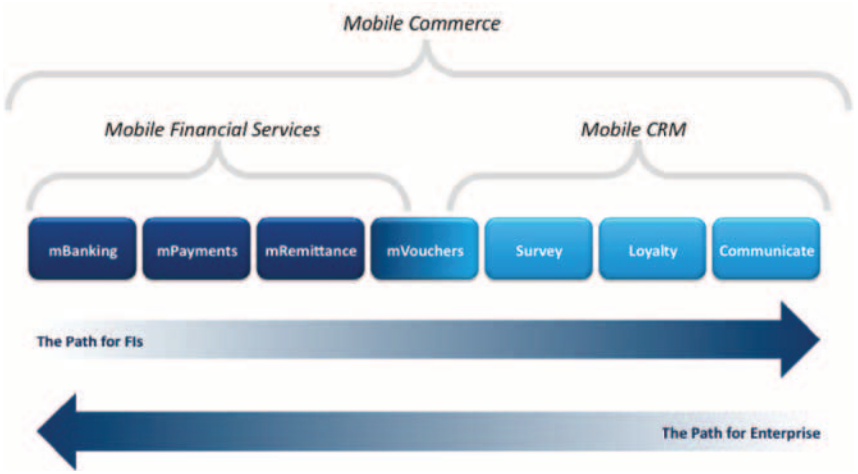
Then there are mobile customer relationship management (CRM) services, which include mobile marketing (communicate), loyalty programs, vouchers and survey. These services attract customers by encouraging them to make transactions, by building loyalty and promoting additional transactions. CRM services drive consumers in to, and through the typical customer life-cycle.

It is the joining of these two types of services that creates a complete mobile commerce service.

Financial institutions have most likely launched a mobile banking service today, and operators or independent service providers have launched some form of mobile payments or remittance service. Now that the service is launched, the next steps are to promote the service (Communicate), and begin understanding how customers use the service (Survey) and then promote repeat business (Loyalty and/or Vouchers).

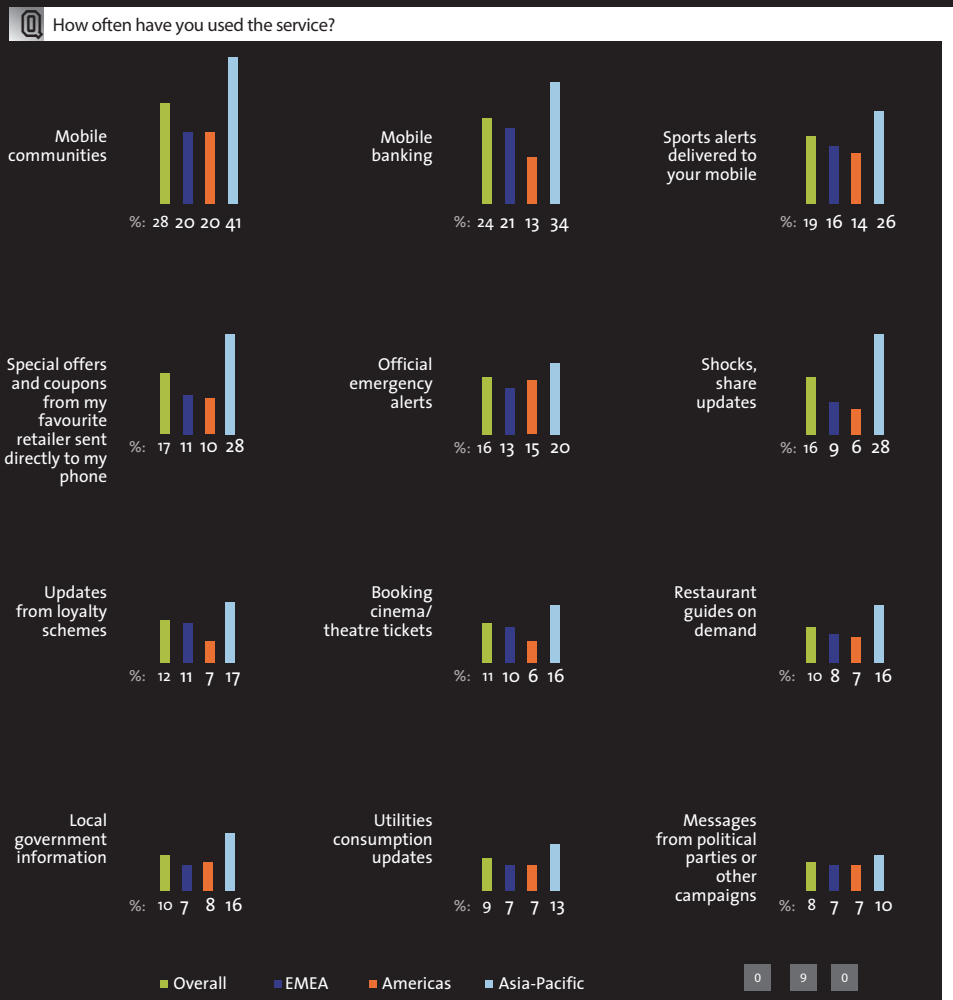
Enterprises, such as retail, are approaching mCommerce from another direction. Most enterprises have dipped their toe into the mobile services water with simple marketing push services via SMS. By adding Survey they can start tracking behaviour and encouraging repeat business via Loyalty.

WHICH PATH do you take to develop a complete mCommerce service portfolio?



WHAT CONSUMERS WANT

If you are looking to launch mCommerce services or extend the range of services you offer, which should you consider? Our 2010 consumer survey examined customer use and preferences of mobile commerce services. The stand-out statistic was the increase in mobile banking. For example, the percentage of Europeans conducting mobile banking more than doubled over the previous 18 months, from 11 percent to 21 percent. Customer use of mobile banking varied a great deal by region. So whilst 21 percent of Europeans had used mobile banking, this compared to just 13 percent in the Americas and 34 percent of respondents in the Asia-Pacific region.



Customers still have little appetite for paying for simple nontransactional alerts, but 65 percent of mobile bankers would be willing to pay for more sophisticated services such as freezing a credit or debit card. Among consumers who use mobile banking, one of the most-used services were checking their accounts (69 percent) and receiving transaction updates (60 percent).

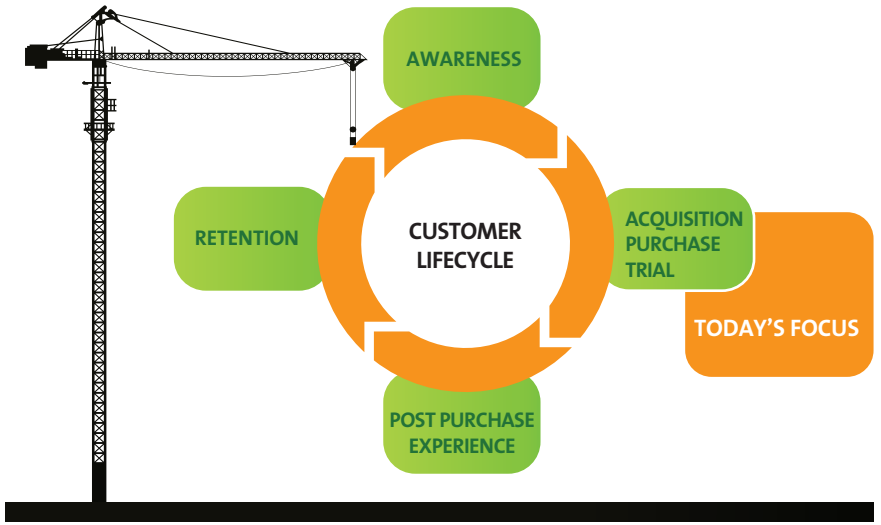
What is the likelihood to purchase the service?

0 9 1

Which mobile banking service would you be interested in?

0 9 2

Launching a mobile commerce service is not enough in itself to create a successful service



In the longer-term, future purchases could even be completed in the mobile channel with mobile payments.

Driving Adoption + Usage

When launching any service, it is very easy to focus exclusively on the service itself and ignore how the service must exist within a customer lifecycle.

The standard customer lifecycle model has four stages: awareness, purchase (use), post purchase and retention. Launching a mobile commerce service addresses only one stage of the lifecycle.

Launching a mobile commerce service is not enough in itself to create a successful service; the other three stages must also be addressed. One of the benefits of the mobile channel is that addressing these stages is possible within the mobile channel itself.

Awareness can be simple SMS short codes sent either as a call to action in a traditional advertisement or as a targeted mobile push advertisement to individual consumers.

The interactivity of the mobile channel can be used to capture instantaneous feedback from consumers. This can range from SMS-based questionnaires, mobile internet surveys or in-application metrics and feedback.

Finally, the mobile channel enables the creation of a range of retention services, from loyalty schemes to redeemable vouchers.

Banks' New Frontier

Consumers are only willing to pay fees for a few mobile banking services; mainly services related to minimizing risk or fraud. As those services would be used only occasionally, they don't create a compelling business case for generating revenue from mobile banking services. In consumer banking, this fact has kept the banks' return on investment (ROI) locked mainly to cost-saving–based models— where customers are deflected from existing service channels, such as a branch or phone, to the cheaper mobile channel.

However, mobile payments and remittance will enable banks to create services that consumers not only will pay to use, but will use on a regular basis. One-third of respondents were interested in using their mobile phones to pay for goods and services. Interest was highest in the Asia Pacific region, where 77 percent of respondents either already paid for tickets or were interested in doing so.

Consumers also showed a clear willingness to pay for such convenience services. Paying for entertainment and utilities scored best. Again, Asia Pacific led the way, with 40 percent of customers willing to pay a fee for the ability to pay for goods and services by mobile.

Mobile remittance varied by region. South Africans are considerably more prepared to pay for services than Europeans, with 55 percent willing to pay for a shopping payment service (compared to 27 percent of Europeans). South Africans are also much more interested in paying bills (62 percent compared to 25 percent of Europeans) and paying for tickets (46 percent compared to 28 percent of Europeans).

While 27 percent of all respondents will send money overseas, huge national variances occur. Thirty-nine percent of Indians would be prepared to pay for this service compared to 9 percent of the British. Those consumers willing to pay a fee per transaction would pay, on average, £4.14.

With this kind of interest among consumers, we expect to see banks extending services and offering more mobile payment and remittance services to customers in the coming years.

Diarmuid Mallon *has 16 years of experience in mobile telecoms and has held a wide range of roles; all with a common focus on the consumer benefits of the introduction of new communication technologies. Prior to Sybase 365, Mallon held a number of positions at LogicaCMG and Sema Group Telecoms, including product management and business development. Mallon also worked with the teams responsible for world's most successful text messaging service and with the introduction of multi-media messaging to Europe.*

Commercial Banking: Can Mobile Banking Yield Big Returns?

MOBILE BANKING INTRODUCES NEW WAYS TO INTERACT WITH CUSTOMERS, ADD REVENUE AND ENHANCE CUSTOMER RELATIONSHIPS. START PLANNING NOW TO EXTEND YOUR MARKET REACH.

By Andrew Mikesell,
mCommerce Product Director,
Sybase, an SAP Company

Banks can define any number of new mCommerce products and services for their customers

mCommerce services and mobility have the potential to significantly improve both business customers' and consumers' perceptions of bank innovation and technology. For commercial banks, mCommerce, especially mBanking, can introduce a new revenue stream in terms of products' fees, and it provides opportunities to enhance customer service, develop a stronger customer relationship and reduce customer churn.

Banks are approaching mCommerce by introducing mBanking, which helps them focus on cross selling and reaching customers who have been historically underbanked in terms of bank products and services. Mobile banking services allow banks to access a market that is much larger than online banking. Unlike online banking, where customers need a computer and Internet service, mobile banking requires only a mobile phone. Because many customers already own mobile devices, this potential user base is vast. To turn mobile phone owners into mBanking customers, banks must emphasize both the user experience and user benefit.

With a little imagination, banks can define any number of new mCommerce products and services for their customers. Four strategies will help lay the foundation for a robust mobile banking suite:

Create a corporate mobile application for business customers. Two well known mobile corporate applications are in use at Wells Fargo and RBS-Citizens. These corporate mobile applications provide traditional account and reporting information, and they extend business functionality to account actions, such as wire release, funds movement approvals and payment decisions.

Deliver tablet-based applications. To create a mobile presence, banks have been focusing on smartphones and large-screen phones. Now is the time to develop tablet-based applications that provide dashboard views into a company's accounts, cash flows and what-if scenarios. Integrating commercial card services and foreign exchange services are also great options for mobile application development projects.

Leverage embedded smartphone mobile technology. The camera feature, which is available on almost every mobile phone, can facilitate services such as remote deposit capture and billing invoice information capture. Other mobile phone features can support location-based services for branch and ATM locations and push alerts via SMS for wire release and payment decisions.

Consider services that reach across business lines. mCommerce services support cross-selling. Offering business partner coupons through the mBanking application using location-based services, for example, will drive debit card transactions and associated merchant fees.

Investing in Mobility

Before mobile banking services can become as common as customers visiting the local bank branch, commercial banks must invest resources in education and evangelism that explain to businesses the benefits of mobile capabilities, including immediate funds movement, approval management and anywhere-anytime access to banking features and services. In addition, moving from the traditional desk-based cash management activities to mCommerce banking applications for businesses accommodates their customers, who already are very mobile.

The banking industry will also have to make macro changes. Interoperability and standardization for payment transactions need to be first on the agenda. Several industry-based and independent organisations, such as the NACHA Payments Council and the Mobey Forum, have working groups focused on standardization. However, these groups tend to be geo-focused, and these regional approaches have created different interoperability standards for North America, Latin America, Europe and Asia. Having multiple standards has resulted in highly fractured and regional markets, because solution providers must either support multiple interfaces and payment processing systems in parallel if they want to have a global presence, or they must limit their market reach and focus on a particular geography.

Near-Field Communications (NFC) technology is a perfect example of how the fractured, regional approach is jeopardizing the development of a single, global standard. NFC has many standards and no universal interface, which is contributing to a lagging adoption rate and slow uptake of the technology. A cohesive approach to NFC and other technologies will go a long way toward advancing mCommerce and, in particular, mobile payments.

mCommerce for Life

mCommerce and mBanking present a new challenge for banks, but a challenge with many opportunities. The time to act is now. Once a stronger foundation is set for mCommerce, banks are expected to reap a high return on investment. According to Howard Wilcox, an analyst at Juniper Research, the mCommerce market is forecast to reach as much as $630 billion gross transaction value globally by 2014. Commercial banks can tap into this growth by providing mCommerce services, which all banks to interact with customers throughout the life cycle—from relationship start to end. Mobile banking services represent more opportunities than banks have witnessed in years.

Andrew Mikesell *has more than 10 years of experience of Internet bank implementations, mobile billing systems and n-tier systems integration. Previously, Mikesell held positions at S1 Corporation and American Management Systems, including implementation management and business development. Mikesell managed teams responsible for implementing Internet banking offerings and mobile billing systems integration for Top 100 financial and mobile service providers within North America, Asia and Europe. Mikesell holds an MBA and a BSBA in information systems and business economics from the University of Denver, Colorado.*

4 TIPS FOR MOBILE SUCCESS

1

Make sure that the lead, or "mobility czar," for your mCommerce strategy has the experience and authority to reach across the many bank silos. Banks often initiate multiple mobility initiatives without recognizing the different activities within business units. Not having a cohesive strategy leads to multiple vendors and highly specialized solutions that don't interoperate well. Without a single vision, banks will be unable to offer a comprehensive set of integrated services, such as banking, investment, currency and wealth management, from a single application. Instead, multiple mobile applications will provide different product features to the same customer.

2

Plan for multiple phases across product lines. Rather than taking a silo or piecemeal view, get buy-in from the business-line owners around the mobility offering. Whoever is appointed the mobility czar needs to have the decision-making power to cross silos.

3

Make mobility a corporate initiative at the executive level. Mobility should be a corporate-wide decision; not a business-line decision. Once on the mobile path, build an aggressive timeframe and roadmap and execute according to plan.

4

Get the word out using multiple communication channels. When milestones are met, heavily promote and market these features and functionality using traditional, online and social media.

Mobile Banking Gets Hot in Caribbean

BEING THE FIRST TO MARKET MBANKING SERVICES IN THE REGION IS DIVERTING TRANSACTIONS TO A LOWER-COST CHANNEL AND BRINGING IN A YOUNGER GENERATION OF CUSTOMERS.

By Derek Wilson,
Director of Technology,
FirstCaribbean International Bank

The Caribbean region may be the perfect test market for mCommerce. It has near-total mobile phone penetration, with key market figures at over 100 percent. More than 80 percent of the phones are pre-paid. With such a large base of potential customers, FirstCaribbean International Bank was the first bank to deploy retail mobile banking services in the Caribbean. After only seven months, 5,000 customers are using the service, and FirstCaribbean is handling $15,000-20,000 USD per day in transactions.

mBanking Rollout

The bank partnered with Sybase 365 to quickly develop and launch a basic, SMS-based product for its more than half a million customers. As the largest, regionally listed bank in the English- and Dutch-speaking Caribbean, FirstCaribbean intended to offer its existing customers access to an additional banking channel, giving them a more convenient way to bank on the go, without needing a home Internet connection or to visit one of its 66 branches in person. The bank also wanted to appeal to a younger demographic.

FirstCaribbean's mBanking offering enables customers to check account balances, get balance alerts, transfer money, and monitor recent transactions. To date, the balance inquiry is the most popular transaction.

On the Horizon

Currently, the major challenge for the bank is the Caribbean communication infrastructure, which is still at 2G or lower. FirstCaribbean plans to expand its offering with rich-media features and a smartphone-based application in order to implement payment capability, third-party transfers, alerts tied to credit card accounts and payments, but until 3G or higher infrastructure arrives, the bank will continue to offer the popular SMS-based services.

FirstCaribbean also plans to offer customers mobile wallet capability, which would be the first of its kind in the region. The mWallets provide customers a mechanism for paying employees: instead of giving them cash, employers would pay into employees' mWallet. Employees could withdraw from the wallet to transfer money, and make payments or purchases at points of sale. These purchasing and payment options would be far more secure for many Caribbean consumers than carrying cash.

Whatever the future holds, mobile banking will continue to be a key channel for the Caribbean—and in other regions. Mobile is the next important banking channel. Automatic teller machines (ATMs) changed the industry, and credit cards did the same shortly afterward, followed by telephone banking and Internet banking. Mobility is the next wave.

*As the Director of Technology for First Caribbean Bank, **Derek Wilson** is responsible for technology across the region, banking operations in 17 countries, two data centers in Barbados, and one in the Bahamas.*

Building on Customer Needs

SUCCESS DEPENDS ON CREATING A SERVICE THAT USERS WANT—AND THEN MAKING IT SIMPLE TO USE, ACCESSIBLE AND SECURE.

By Kavitha Radhakrishnan Pillai,
Deputy Chief of Retail Banking,
Commercial Bank of Qatar

Building a successful mobile platform depends on more than just the services offered

Commercial Bank of Qatar was established in 1975 and was Qatar's first private bank. It serves the 1.7 million people of Qatar, of which fewer than a million are citizens and the rest are foreign workers. Qatar has the highest gross domestic product per capita in the world, and it has aggressive and innovative development plans—the country sponsors U.S. university branches and has built international sports stadiums and entertainment venues.

To meet the demands of this diverse and sophisticated customer base, Commercial Bank launched a state-of-the-art mobile banking service, whereby customers who are registered for Internet banking can bank through their mobile devices. Services available to mobile customers include balance enquiries, credit card payments, account transfers, cheque book orders, utility bill payments (such as telecom and electric bill payments) and local and overseas remittances. The bank also has the largest electronic funds transfer at point of sale (EFT/POS) network— a debit card-based system that processes transactions through terminals at points of sale—in the country.

The mobile banking service is safe and secure, free for its customers and accessible, enabling them to bank 24/7 from anywhere in the world. In addition, the mobile service works with any local or international telecom provider. These benefits—and because Commercial Bank of Qatar was the first to market in Qatar with a full-fledged mobile banking platform- mean that customer uptake has been huge. Services such as enquiries, remittances, and instant card and bill payments are of high importance to the bank's 6,000 customers, which demonstrate customers' disparate needs.

Success Needs More than a Service

Building a successful mobile platform depends on more than just the services offered. Sign-up is simple. All Commercial Bank of Qatar Internet banking customers are provided with an easy, two-step mobile banking registration mechanism, whereby they can select the accounts and services they wish to transact though their handheld devices. In addition, a simple look-up lets them check in advance to see if their phone supports the service.

Mobile banking customers like simplicity, but they are reassured by security measures—and that reassurance helps to build confidence in the system. Commercial Bank customers must register for mobile banking through existing Internet banking services. In addition, mobile banking customers use a five-digit mobile personal identification number (MPIN) to access accounts, and only registered beneficiaries can be paid from mobile phone services. Then, each time a balance-altering transaction is carried out, an SMS alert is sent to the customer's phone. The bank records each transaction. If customers believe that their MPIN has been compromised, they can check the transaction and then block access from any Internet-enabled phone.

This simple, safe, secure and free service that is available 24/7 give Commercial Bank of Qatar great opportunities to grow in the near future.

This simple, safe, secure and free service that is available 24/7 gives Commercial Bank of Qatar great opportunities to grow in the near future. Customers, especially the tech-savvy segment of the population, will be attracted to the convenience of the service. The bank expects a minimum of 3,000 customer migrations per month to the mobile banking platform.

As customer uptake levels grow and demand for mobile payments increases, merchant payments through mobile banking will also grow. And the bank expects mobile services will also reduce bank branch and ATM costs.

Challenges of Growth

Growth is never painless. Providing additional services for prime customers—such as ATM and branch locator data, merchant payment services, balance enquiries on personal and car loans, airtime top-up, real-time stock trading and pricing—is necessary, and extending mobile banking services to non-Commercial Bank of Qatar customers will be the next step in building a solid, high-functioning mobile financial ecosystem.

However, these challenges are part of growing a new technology and system. Mobile banking is seizing market share because it is easy to access and convenient to use. As long as these qualities remain true for customers, growth will continue.

Kavitha Radhakrishnan Pillai *is Deputy Chief of Retail Banking, Commercial Bank of Qatar.*

Are Too Many Options in Developed Countries Hurting mCommerce?

MOBILE FINANCIAL SERVICES IN EMERGING MARKETS HAVE BEEN MORE SUCCESSFUL THAN THOSE IN DEVELOPED MARKETS, WHERE MOBILE USERS ARE SPOILT FOR CHOICE WHEN IT COMES TO ACCESSING BANKING SERVICES AND MAKING PAYMENTS.

By Pamela Clark-Dickson,
Senior Analyst,
Mobile Content + Applications Intelligence Center,
Informa Telecoms + Media

For mobile operators in emerging markets, 2010 was the year they caught up with, and perhaps even exceeded, the achievements of mobile operators in the developed world.

According to Informa Telecoms & Media's mobile financial services deal tracker, at least 65 mobile financial services were deployed or announced in 2010. Of these deployments or announcements, 34 percent were in Africa and 22 percent in the Asia Pacific (see Figure 1). Also, 50 deployments or announcements were made subsequent to the Mobile Money Summit in Rio de Janeiro in May 2010, when the GSM Association announced 60 commercially launched mobile money services from 147 deployments.

Within Africa, mobile operators and other service providers have overwhelmingly opted to deploy mobile money services. Of the announcements Informa tracked, 63 percent related to the planned deployment or actual launch of mobile money services (see Figure 2). This uptake is no doubt in response to the incredible success of Safaricom Kenya's M-Pesa mobile money and payments service.

Other operators in Africa are also reporting promising levels of take-up and use of their mobile money services, notably Vodacom Tanzania, MTN Uganda and Orange. MTN Uganda is another success story: It had 890,000 users for its Mobile Money service by the end of the first quarter in 2010, which made 11.8 million transactions for a total transaction value of $247.8 million (based on an average transaction value of $21). Vodacom Tanzania had 5 million users for its version of the M-Pesa service, and Orange had 1 million users for its Orange Money service, across five markets.

Mobile Phones in Emerging Markets

The factors that have contributed to the success of mobile money services in emerging markets just do not exist in developed markets. Emerging markets are, typically, cash-based or barter economies, where many people do not have access to a bank account, much less multiple ways of accessing it. Nor do people in emerging markets necessarily have access to multiple payment mechanisms such as direct debits, standing orders and online bill payment.

What people in emerging markets do have access to, increasingly, is a mobile phone.

In emerging markets the mobile phone has become the tool through which mobile operators, banks and financial institutions are collaborating to provide innovative financial services that may not even have been introduced in some developed markets. In Kenya, for example, millions of Safaricom subscribers not only send and receive person-to-person payments via their mobiles, they also make bill payments to businesses and receive payments from their employer or other companies. These mobile services are not yet available in the United States.

NFC Might Push Uptake

In developed markets, mobile operators and other stakeholders are fighting mass-market inertia when it comes to encouraging their customers to use mobile devices for payments, banking and financial services. This hesitancy thrives because the mobile phone is just one—and the newest—channel by which a banking customer or a user of financial services and payments can access those services; the existing access channels for banking and financial services, and for payments, are well established and trusted. Mobile users in developed markets regard mobile payments, banking and financial services as a nice-to-have convenience, rather than the essential tool that such services play in emerging markets.

Mobile operators in developed markets now seem to be pinning renewed hopes for mass-market adoption of mobile payments services on Near-Field Communications (NFC). In the United States, AT&T, T-Mobile and Verizon formed the Isis initiative to launch a nationwide NFC-based mobile payments network in 2012. In the Netherlands, telcos KPN, T-Mobile and Vodafone teamed up with banks ABN AMRO, ING and Rabobank to enable NFC-based mobile payments at the point-of-sale by 2012. By the end of 2011, Orange plans to expand to the rest of France the Cityzi NFC pilot it has been running in Nice since May 2010.

Meanwhile Japanese mobile operators Softbank and KDDI have partnered with South Korea's SK Telecom to develop an NFC-based mobile payment platform, which will build on the expertise that the mobile operators in both countries have gained from their deployed NFC-based mobile payments services. In Japan, the mobile operators have all launched services based on Sony's FeliCa platforms, while in South Korea each operator launched its own proprietary service as well as enabling access to the NFC offerings of Visa and MasterCard.

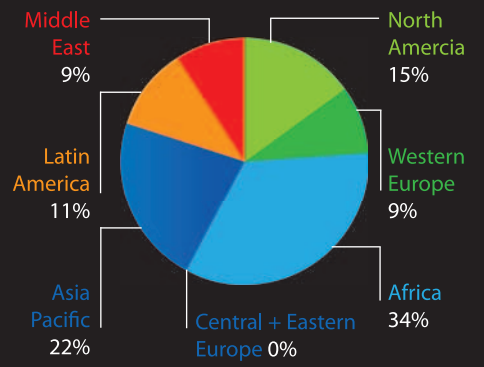
However, mobile operators seeking to deploy NFC-based mobile payments services are faced with challenges. These include the lack of a clear business case for mobile operators and, indeed, for all players in the large and complex NFC value chain. Retailers, for example, are yet to be convinced that the cost of investing in NFC infrastructure will provide them with a sufficient return. Mobile users will need to be reassured that their account details will remain safe in the event that their device is lost or stolen.

One barrier that is well on the way to being addressed is the lack of NFC-capable handsets. Companies such as Apple, Google and RIM have committed to including NFC on future iterations of their devices and platforms.

Despite the widespread mobile operator backing for NFC-based mobile payments services, substantial hurdles still must be overcome if these services are to achieve the same kind of mass-market take-up as has been experienced by the telcos in emerging markets, which have rolled out much less technically complex mobile payments offerings.

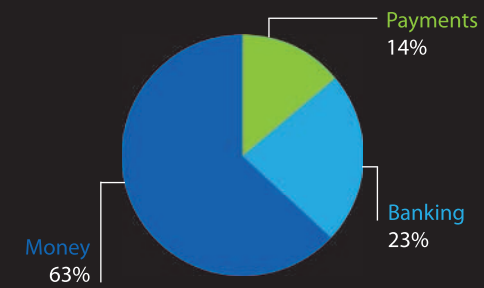
Pamela Clark-Dickson *is senior analyst at Informa Telecoms & Media, with a focus on mobile messaging. Clark-Dickson analyzes the messaging market for the Mobile Content and Applications Intelligence Center. Her areas of expertise cover all aspects of mobile messaging in the consumer, enterprise and marketing industry sectors globally, including SMS, MMS, mobile e-mail, mobile instant messaging and Rich Communications Suite. She also edits Mobile Messaging Analyst, a continuous research service published by Informa.*

FIG 1: Global , mobile commerce deals by region, 2010



Source: Informa Telecoms + Media

FIG 2: Africa, mobile commerce announcements by type, 2010



Source: Informa Telecoms + Media

Mobile Operators and mCommerce
An Evolving Partnership

MCOMMERCE IS NOT NEW TO MOBILE OPERATORS, BUT THEY ARE STILL TESTING SERVICES AND BUSINESS MODELS. AS THE MARKET MATURES, OPERATORS WILL NEED TO SEEK PARTNERS THAT CAN HELP THEM MAINTAIN AN ACTIVE ROLE IN THE ECOSYSTEM.

William Dudley, Group Director,
Product Management, Operator Services,
Sybase, an SAP Company

Mobile operators have had a strong relationship with mobile commerce, for many years. In the days before smartphones and advanced feature phones, mobile operators accepted payments for mobile-phone-centric content through a variety of means; premium SMS being the most prevalent. This payment method enabled operators to collect additional funds via messages sent and received from subscribers to and from short codes. Typically, the operator-collected funds were split among any aggregators, the operator and the content provider. Subscribers were charged for the premium SMS on their regular phone bill. In a way, one might call premium SMS the first true mobile commerce application. It is still prevalent around the world, as global SMS uptake is nothing short of phenomenal. Usually premium SMS is used as a method of payment for content such as ringtones, wallpaper, and simple phone games.

In later years, Wireless Application Protocol (WAP) billing provided an improved customer experience. With WAP billing, the subscriber initiates a WAP session with the content provider by browsing to a WAP page, where the subscriber's Mobile Subscriber Integrated Services Digital Network Number (MSISDN) is obtained. Subscribers confirm purchases by selecting a specific link on the displayed page on the mobile phone. The application is informed of the completed purchase, and the subscriber is linked to the content they may have purchased—typically mobile-centric content such as ringtones, wallpaper and games. These purchases are billed directly to the subscriber via their mobile phone bills.

Commentators often cite WAP billing as superior to premium SMS because subscribers don't have to remember short codes and the user experience is similar to the "browse and buy" experience of a PC shopper. A drawback of WAP billing is that the content provider must create an interface into multiple operators' billing systems, which can be a daunting task. Most major mobile operators support WAP billing, and many aggregators offer consolidated interfaces to operators' billing platforms. Examples include Sybase 365 Operator Charging Gateway (OCG), PayForIt in the UK and the Ericsson Internet Payment Exchange (IPX).

In 2003, a consortium of operators (Orange, T-Mobile and Vodafone) launched a pan-European movement called Simpay to create an open and interoperable framework for mobile payments up to 10 to 12 Euros. Simpay launched with Spain in 2004. The endeavor failed in 2005, following the withdrawal of T-Mobile. While certainly not the end of mCommerce, this experience did teach some valuable lessons about what problems to solve and which mobile payment solutions would generate the greatest economic return for the providers.

Mobile operators around the world are shifting gears and starting to play leadership roles in mCommerce and payments

mPayment Implementations

Until very recently, the mobile operator's role in mobile commerce was to manage the payment (sometimes called micropayments) of add-on goods and services for their subscribers' mobile devices. Premium SMS and WAP billing were and still are the primary mechanisms. But, in this new decade, mobile operators around the world are shifting gears and starting to play leadership roles in mCommerce and payments, as they see tremendous opportunities and as mobile devices

become accepted payment devices.

Juniper Research forecasts that payments for digital and physical goods as well as money transfers (mobile remittances), via mobile channels or mCommerce will exceed $630 billion by 2014. Let's review a few selected operator-initiated mobile payment implementations around the world.

End-users will flock toward the solution where the players enable them to pay for goods and services in the easiest most secure method-regardless of technology.

In the United States, three of the major Tier 1 operators: AT&T, T-Mobile and Verizon Wireless formed a joint venture called Isis. Isis is open to all operators, and with the support of three of the four U.S. Tier 1 operators, it reaches more than 200 million subscribers. Isis is slated to use the payment network of Discover Financial Services, with US Barclaycard being the first issuer, and Near-Field Communications (NFC) as the mechanism for the subscriber to initiate payment. In fact, most operator and many third-party or independent mobile payment solutions will or are planning to use NFC. Isis plans to launch during the first half of 2012.

Telefonica O2 UK is preparing for NFC-based mobile payments in 2011. It noted that mobile payments will become a reality in the UK during 2011. In late 2010, Softbank Mobile of Japan announced that it will release an NFC sticker to cover the entire back of Apple iPhones.

Globe Telecom of the Philippines has offered G-Cash—a reloadable, debit-card like mobile wallet capability—for some time. This mobile wallet works with a four-digit short code and keywords such as AMOUNT, LOAD, BILLPAY, PAY, DONATE and BAL. Users may cash-out at a Globe Center or any accredited G-Cash partner. The operator Smart has a mobile wallet service called SMART Money. Like G-Cash, SMART Money is a reloadable payment card that is similar to a debit card. Subscribers can manage their money from mobile phones, whenever they want, from anywhere. In fact, SMART Money was the world's first electronic wallet card that was linked to a mobile phone. The service won the 2001 "Most Innovative GSM Wireless Service for Customers" at the GSM Awards of that year. Between the two Filipino operators, more than 4.1 million consumers are using mCommerce services.

Ultimate Winner—End Users

As mobile payments and mobile commerce become mainstream, it is clear that mobile operators want a piece of this action; however, this may not come easily. Many third-party and independent options from well-known companies such as American Express, MasterCard, PayPal, Visa and Western Union are launching or have launched. With today's advanced smartphones and devices, the mobile operator need not be involved at all. Because no common standards on the mechanisms for mobile payments have been established, the market will see a large variety of options deployed during the next three years.

The primary beneficiary will be the end-subscriber. Because this is a consumer-driven marketplace, end-users will flock toward the solution where the players enable them to pay for goods and services in the easiest, most secure method—regardless of technology. Many think that NFC will be the prevailing mechanism. Others think it will be something else. Today, the most popular payment methods are still cash, credit or debit card. The mobile payment option exists only for a few services and goods (such as Starbucks, for example) and on limited platforms. Google and Apple claim that their platforms will ultimately support mPayment capabilities—either through a mobile wallet or NFC. But will that tie consumers' handsets to a proprietary infrastructure or an open standard that allows them to use any third-party payment provider? Time will tell.

Mobile payment adoption will also have regional aspects. Gartner noted that the Asia-Pacific region had 54 million mobile payment users by the end of 2010. This clearly puts Asia as the worldwide leader in mobile payments. Gartner notes that much of this growth is driven by the "unbanked" or "under-banked." In many areas, SMS-based mobile payment solutions are still the predominant technology. NFC and other smartphone technologies do not have the financial backing and infrastructure needed to gain a foothold in developing markets compared to more highly developed markets, where point-of-sale terminals and equipment could be easier for retailers to upgrade and support.

When the technology to support mPayments and mCommerce is still SMS and WAP billing, the mobile operator plays a pivotal and key role. But when the technology advances to NFC and other possible technologies, the mobile operator's role may become less visible. That's why mobile operators are taking the role of facilitators, partnering with payment processors and financial institutions.

William Dudley *is head of Sybase 365 Operator Services product group as well as overseeing mobile messaging, FMC, GRX, IPX and IMS product strategy and new product initiatives for all operator services and emerging technologies within Sybase. Previously with CMG, Dudley was responsible for defining the technical and business strategy for all of CMG's messaging-related products. During this time at CMG, he was part of a small, multi-company team that defined the concept of hub-based inter-operator SMS.*

Will the World's Unbanked Go Mobile?

TO REACH THEIR FULL POTENTIAL IN UNBANKED REGIONS, MOBILE FINANCIAL SERVICES NEED TO BE DESIGNED EFFECTIVELY AND SUPPORTED WITH ADEQUATE INVESTMENT AND ENABLING REGULATIONS.

In 2007, Safaricom, a mobile operator in Kenya, launched a service called M-PESA. Pitched to urban Kenyans as a tool for sending money to their rural family members using a mobile phone, M-PESA has become a runaway hit: The service now accounts for 9 percent of Safaricom's total revenue[1], and a remarkable 70 percent of Kenyan households use it.[2] Not surprisingly, this success catalyzed mobile operators across the world to launch mobile financial services that target the unbanked. To date, operators have launched more than 80 such services in developing countries in Africa, Asia and Latin America. This figure represents an incredible spike from just a few years ago, when the number could be counted on one hand.

By Paul Leishman,
Manager, Mobile Money
for the Unbanked Program,
GSM Association

1 Fiscal Year 2010 Safaricom Results Announcement
2 The Economics of M-PESA: an update. William Jack and Tavneet Suri.

1 billion people don't have a bank account but do have a mobile phone, and this figure will increase to 1.7 billion by 2012

Supply + Demand

Has this industry completely realized its potential? Not by a long shot. A 2009 worldwide study sponsored by GSMA and the Consultative Group to Assist the Poor (CGAP) estimated that 1 billion people don't have a bank account but do have a mobile phone, and this figure will increase to 1.7 billion by 2012. It is a stretch to say that these figures precisely reflect the size of the market—surely not all of these customers have a demand that can be met by a mobile financial service—but the number does reflect the magnitude of the opportunity at hand.

To capture the opportunity, a couple things need to change. For starters, a number of countries with large unbanked populations have not yet seen a mobile financial service launched with the meaningful involvement of a mobile operator. For instance, in India, Nigeria and the whole of Latin America, not a single service targets the unbanked and, crucially, also leverages the unique assets a mobile operator has to offer, such as a trusted brand and expansive distribution infrastructure.

In markets where mobile operators have launched services for the unbanked, the challenge is slightly different. In many cases operators have been successful at registering customers for their new services, but less successful at converting them into active users. For instance, GSMA analysis of five services found that only one had an active user rate above 60 percent, and the other four were all below 30 percent, with the lowest coming in at 10 percent.

What must happen for the industry to realize its potential? How can we ensure that services are launched in high opportunity markets? And above all else, how can the services achieve sufficient consumer adoption to justify their continued operation? Many factors will need to fall into place. Here are three worth highlighting.

Enabling Regulation

To launch a mobile financial service that targets the unbanked in a meaningful way, financial services regulators must first introduce an enabling regulatory environment for non-banks. Rules need to be instituted that:

- ***allow for direct licensing of non-banks*** (to level the competitive playing field and improve speed to market for prospective services)
- ***simplify Know Your Customer (KYC)*** procedures for low-risk customers (to improve the ability to scale and deliver a good customer experience)
- ***enable the development of ubiquitous, low cost agent networks*** (to reduce the operational complexities of building a network of agents).

Effective Service Design

Services like M-PESA have achieved scale in large part because they were designed in recognition of—and marketed to address—a specific unmet customer need. In the case of Kenya, this unmet need was urban-rural, person-to-person (P2P) transfers within a family network—but that's not to say this same need exists in every country. Indeed, in many countries alternatives for money transfer are better than those in Kenya, so it's important to understand what unique demand conditions exist in a country as the starting point for service design.

Up-front Investment + Willingness to Spend

Finally, for a mobile financial service targeting the unbanked to achieve scale, mobile network operators (MNOs) must be prepared to spend. While it's impossible to generalize about how much an MNO—in any market, operating with any business model—can assume they need to invest before turning a profit, one thing is certain: Investing in an m-wallet transactional platform is pointless if there's no budget for anything else. Indeed, a 2010 GSMA study of MTN Uganda's MobileMoney service confirmed that 70 percent of MTN's costs during the first 16 months for MobileMoney were not technology related. Over the long run, the cost drivers for expanding services will predominantly include customer acquisition and registration, agent network development, agent commissions and other items that scale commensurately with growth.

2011 + Beyond

The next 18 months in this industry will be important ones. Plans are underway to launch 90 mobile financial services targeting the unbanked, and existing live deployments are redoubling their customer activation efforts. With so much activity, a growing list of onlookers awaits the next big success story.

Mobile network operators must be prepared to spend

*As manager of the GSMA program Mobile Money for the Unbanked, **Paul Leishman** supports the development of strategy and execution for MNOs in Africa, Asia and Latin America. Prior to joining the GSM Association, Leishman worked for a Canadian consultancy, the Strategic Planning & Execution team at TELUS Mobility, a Canadian MNO, and earned an honours business administration (HBA) with distinction from the Richard Ivey School of Business.*

Years Ahead in Austria

PAYBOX AUSTRIA IS EUROPE'S MOST SUCCESSFUL MOBILE PAYMENT METHOD. IT WORKS WITH ANY MOBILE PHONE AND EVERY MOBILE NETWORK OPERATOR IN THE COUNTRY.

By Peter Lohmann,
Head of Related Affairs,
A1 Telekom Austria Group

1 2 1

A1 Telekom Austria's mobile payment solution, paybox, is making customers' lives easier and more flexible. paybox users literally do not need to carry cash or credit cards when they shop and travel within the country. Instead, they can use their mobile phones.

Take parking, for example. Almost 50 percent of Vienna's car drivers pay for parking with paybox. They simply park their cars, send an SMS with the amount of time they need, and the service responds with a free confirmation. Just before their time is up, drivers receive a reminder message. If they need more time, they can buy it from wherever they happen to be by sending another SMS.

This mParking solution has become the most-used mobile service in the country.

Austrian Leadership

Throughout Austria, all post-paid mobile phone subscribers are automatically enabled for paybox. Beyond parking lots, the service is accepted at more than 5,000 locations, and used by more than 2.3 million subscribers in Austria. It has become a standard for mobile payment. Interoperable between the four biggest mobile network operators (MNOs), A1 Telekom Austria, T-Mobile, tele.ring and Orange, paybox is now the second most popular payment mechanism in the country.

Consumers purchase train and concert tickets, parking, flowers and dining, as well as many other products and services. To access the system, customers simply select the item to purchase via their mobile phone and enter a personal identification number (PIN) code to authorize payment. The transaction is paid by credit card, directly debited from a bank account or billed to their next mobile-phone invoice.

> People aren't willing to complete a complex registration process to try a new payment method for the first time

Lessons Learned

In the 12 years since launching paybox, A1 Telekom Austria has learned some important lessons.

First, when customers are ready to try the system, give them the ability to do so immediately. People aren't willing to complete a complex registration process to try a new payment method for the first time. Buying goods and services with a mobile phone is a strange idea at first, and the initial process must be as easy as possible.

paybox's first registration process required people to include their name, address and other basic information. Only a small percentage of people who started the process finished it, suggesting that registration was preventing use.

To address the problem, the service lifted the registration requirement, allowing people to immediately do whatever it was they were trying to do: buy tickets to a concert or the metro, pay for parking and so on. It worked. Usage increased dramatically, proving that customers need the ability to do things on the fly.

When people use paybox for the first time, they're happy. They walk away with smiles on their faces. After that experience, they're much more likely to register and keep using the service.

Another lesson learned is that once people use one service and see that it works and is convenient, they are more willing to try others. A broader portfolio of services brings more customers into the system and encourages each customer to use multiple offerings.

However, and here's the next lesson, all the services need to work in a consistent way. The user experience, navigation help and screens should be similarly designed so they will become familiar to users. People don't want to learn a new process for each service, so you have to build on what they already know. If parking works via SMS, make metro tickets work the same way.

And finally, the most important lesson is that building a mobile payment system takes a lot of time and energy. But once people get it, they tell their friends, and the system will go viral. At that point, the business will grow on its own.

International Opportunities

MNOs must recognize and seize this exciting opportunity. If MNOs don't pursue mCommerce, technology companies will. That would be a shame, because no other industry is better positioned than operators. If there's one thing that a mobile payment method needs, it's volume. MNOs have a global customer base of five billion people. That's more than any other industry in the world. To take advantage of that base, it's time to cooperate—to provide interoperable solutions for consumers and merchants and actively build standards together.

Peter Lohmann *is head of related affairs at the A1 Telekom Austria Group. Prior to joining A1 Telekom Austria Group, Lohmann was responsible for mobile payment and mCommerce for Mobilkom Austria AG. In 2002, he founded the first bank of a mobile network operator with a focus in mobile payments (A1 Bank). In 2006, he founded the first interoperable payment solution between competitive mobile network operators in local markets (Paybox.at). He also oversaw the customer relationship management and loyalty programs at Mobilkom.*

mCommerce Initiates Social Changes in Afghanistan

ROSHAN'S MOBILE PAYMENTS EMPOWER AFGHANS BY OFFERING NEW OPPORTUNITIES AND ADDING SECURITY TO DAILY LIFE.

By Zahir Khoja,
Executive Director,
Mobile Money, M-Paisa

Improved technology helps provide more financial security to many of the poorest Afghans

For many of us, stopping at an ATM on the way home or driving to a bank to deposit a cheque is a typical part of daily life. In Afghanistan, those easy errands are far from standard. Survival is at the forefront of most Afghans' minds as they struggle daily with an unstable security environment, poor infrastructure and a literacy rate that is approximately 30 percent. Survival is at the forefront of most Afghans' minds as they struggle daily with an unstable security environment, poor infrastructure and a literacy rate that is approximately 30 percent.

The country's long history of conflict has contributed to its poverty: Afghanistan is one of the poorest nations in the world. More than 53 percent of the population lives below the poverty line, and the Gross Domestic Product per capita is $300. Global efforts are underway to improve the standard of living. Help from within the country, however, specifically through improved technology, is becoming an important gateway for providing more financial security to many of the poorest Afghans.

Roshan, Afghanistan's leading telecommunications provider, extends services to more than 60 percent of the population in more than 230 cities and towns, and mobile adoption rates in the country have grown from 0.25 percent in 2003 to about 35 percent in 2011. Social development products and services, which can be offered through mobile technology, have the potential to bridge gaps in infrastructure and build a financial system for the country. For Roshan, delivering communications to residents is vitally important to this mostly rural population, but the recently launched mobile money transfer services is enabling a sense of self sufficiency that is reaching well beyond basic money transfers.

M-Paisa as a Cashless Alternative

Roshan offers subscribers mobile money transfers through M-Paisa, which is based on the Vodafone platform that has been successfully deployed elsewhere, including Kenya. Afghanistan's M-Paisa supports peer-to-peer transfer, airtime purchase, merchant payment, payment receipt, salary receipt and salary disbursement. M-Paisa enables these transactions by connecting the subscriber to an electronic wallet through the mobile network operator.

In Afghanistan, cashless money transfers are a huge benefit, because the majority of Afghans do not rely on banks. Only 3 percent of its 28 million citizens use financial services, as the country has only 17 commercial banks, approximately 300 bank branches and 45 ATMs. Most of the population, 75 percent, lives in rural areas without access to a bank.

This underserved population has the most to gain from M-Paisa. Rural residents typically live on less than $2 a day, and they use cash to purchase goods and services. Cash is risky, though, because it leaves people vulnerable to theft, and moving cash throughout the country is expensive and hazardous due to conflict.

To transfer large amounts of money, most payments in the country are handled through hawalas, an unofficial banking system that is based on trust and where money can be made available internationally without actually moving it or leaving records of transaction. Hawalas act as money agents, but this informal channel can present multiple challenges to regulatory authorities when it comes to transparency and Know Your Customer (KYC). Hawalas also typically receive a portion of the transfer from the sender as payment. M-Paisa is a viable alternative for smaller transactions that allows residents to safely receive and send money, at relatively low transaction costs.

Serving the Underserved

The police and women are two subscriber demographics that can benefit greatly from a service like M-Paisa. For the Afghan National Police, receiving a monthly salary can be difficult. The bank queue to collect salaries lasts for hours and robberies are prevalent. If salaries are sent through "trusted agents," workers rarely receive the full amount because the agent skims a portion off the top. Moreover, for the government, payday leads to policemen going absent without leave (AWOL) because they need to take the money to their families.

M-Paisa provides the government and the police with a solution that serves their needs. It offers the government a secure, instantaneous mechanism to transfer funds to the officers, and the men can distribute the funds to their families electronically. More than 250 Afghan National Police are now paid through M-Paisa in Wardak and Khost, reducing the men's security risk and potential corruption in the system.

Women also have the potential to benefit from M-Paisa by entering the financial ecosystem. Many men who work in the main cities can now send funds back to their families. A child can be educated, families can eat, goods can be purchased, a woman has funds to start her own business and can access a microfinance loan. In a country where economic development is desperately needed, the benefit in allowing legitimate funds to flow freely is endless. M-Paisa can play an important role in empowering women and supporting financial inclusion.

Beating the Odds

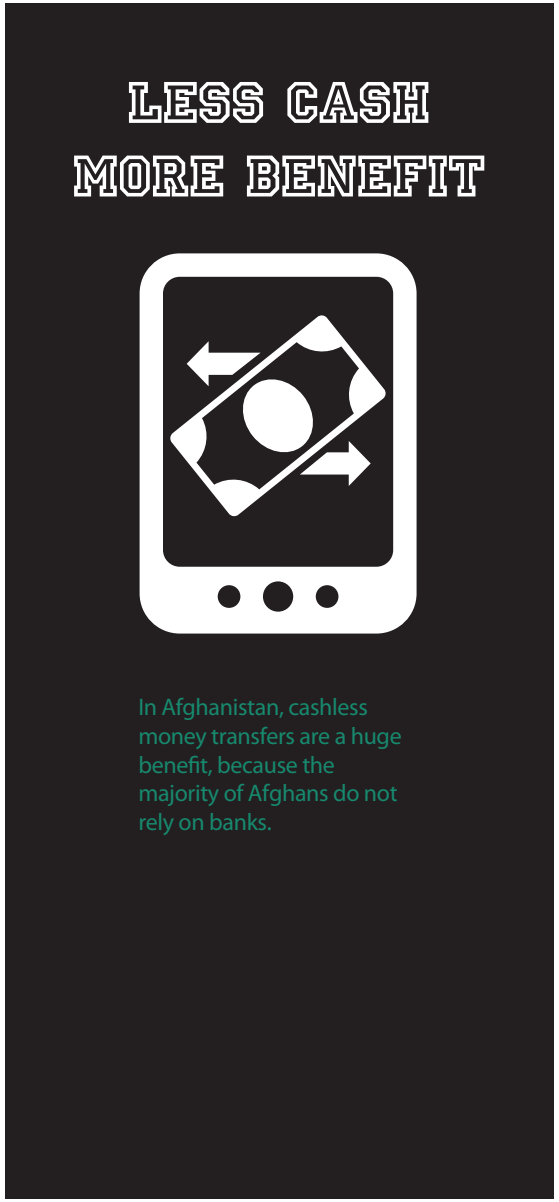
M-Paisa is gaining traction in Afghanistan because it serves the population's needs. The combination of the large rural community, poor transportation infrastructure, migrant population and high adoption rate of the mobile phone create an opportunity to bridge gaps with infrastructure.

There are challenges, however, in bringing financial services to a developing country such as Afghanistan. Only 2% of the population has access to a mobile phone in some rural areas—which is where the service can have the greatest impact. Training and educating customers about the benefits of the service and how to use it is imperative, but the country's low literacy rate makes the education process difficult. Regulations to govern this new money transfer method will also need to be continuously re-examined as the market grows.

M-Paisa is regulated under the Central Banking Authority, Da Afghanistan Bank (DAB), and customers must have a taskara (national identification) card or passport to register for M-Paisa. The service is fully compliant with KYC and Anti-Money Laundering (AML) regulations. All transactions are monitored, and any suspicious activity is reported to the Central Bank.

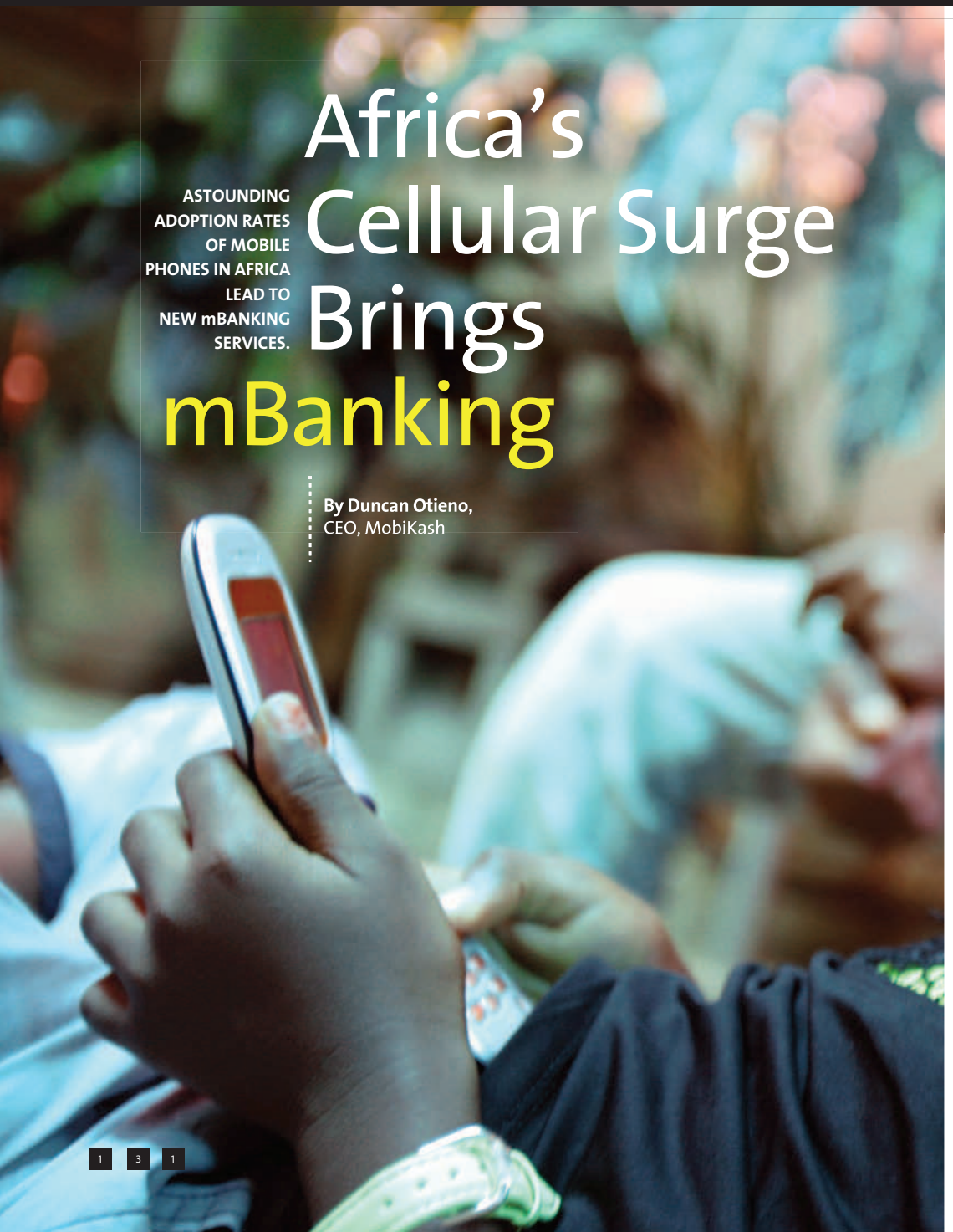
To ensure M-Paisa's success, Roshan is committing resources to communities, business partners and the government. M-Paisa continues to work with the government and DAB to shape a regulatory framework for mobile money, and it offers training and educational opportunities at the grassroots level—directly within the individual communities and through business partners. By working at all these levels, M-Paisa can be a catalyst for change and bring better solutions to communities to build a brighter tomorrow.

> M-Paisa can play an important role in empowering women and supporting financial inclusion.



In Afghanistan, cashless money transfers are a huge benefit, because the majority of Afghans do not rely on banks.

Zahir Khoja *is executive director, Mobile Money for M-Paisa, Afghanistan's first mobile money transfer service. Before joining Roshan, Khoja was responsible for setting up and building the sales channel for Virgin Mobile, a new MVNO in Canada. He was also instrumental in building the sales channels for dial-up and high-speed Internet at TELUS Canada. Khoja holds a Bachelor of Commerce honors degree in marketing and management information systems from the University of Ottawa in Canada*



Africa's Cellular Surge Brings mBanking

ASTOUNDING ADOPTION RATES OF MOBILE PHONES IN AFRICA LEAD TO NEW mBANKING SERVICES.

By Duncan Otieno,
CEO, MobiKash

Africa has the highest mobile phone growth rate of all continents

For the last five years, mobile phone usage in Africa has grown faster than even the wildest expectations. Africa has the highest mobile phone growth rate of all continents, according to a report by the International Telecommunications Union ("Information Society Statistical Profiles 2009: Africa" released in January 2010).

The report noted that Africa has 246 million mobile subscriptions, and mobile adoption has risen from just five percent of the population in 2003 to more than 30 percent today.

Even with this enormous growth rate, experts predict mobile phone adoption throughout Africa will remain robust for years to come. The regional mobile operator MTN forecasts an average mobile adoption rate of 80 percent by 2012 in its 15 African markets.

Payment Solutions Unique to Africa

With this cellular boom, business in many regions of Africa is changing drastically, and new players are leading the way. A mobile industry that barely existed fewer than 10 years ago is now worth $25 billion, according to Bharti Airtel (formerly Zain), a leading provider in Africa. Prepaid airtime is the preferred usage model, which has created its own $2 billion a year industry for resellers.

Local entrepreneurs in Africa have developed many innovative uses for mobile phone technology. The most common mobile financial service is person-to-person money transfers, allowing people without bank accounts to send money immediately and safely over the mobile phone.

Africans also use mobiles for real-time business functions, such as receiving market data. For example, rural African fishermen check local fish market prices on their mobiles to determine where to bring the catch. The Kenya Agricultural Exchange (KACE) gives crop growers up-to-date commodity information by SMS, allowing farmers to access daily vegetable and fruit prices from more than a dozen markets.

Many Africans have difficulty gaining access to financial services

Some farmers have reported that they have quadrupled earnings by having this pricing and buying information before making the arduous journey into urban markets to sell produce.

Mobile Services for the Unbanked

The long journey to the market is also an obstacle to banking. Many Africans have difficulty gaining access to financial services—and, indeed, may not even see the need for retail banking services. Generally, fewer than 10 percent of Africans participate in formal banking, because extremely low incomes, especially in rural areas; long distances between bank branches; large geographical areas and the lack of access to cost-effective and efficient transportation make participation in banking services not worthwhile.

Addressing this problem is MobiKash, a mobile commerce and payment ecosystem created by Mobicom Africa Limited, a holding company based in Nairobi, Kenya. The MobiKash mobile commerce platform is independent of any specific mobile operator, commercial bank, financial institution, and bill issuer. The company's easy-to-use services make it possible for Africans to securely conduct business activity from any mobile phone.

Deployed first as a pilot in Kenya in September 2010, MobiKash connects with a combination of different banks, microfinance institutions (MFIs), and bill issuers using Unstructured Supplementary Service Data (USSD) as the mobile communication channel. In parallel, the MobiKash business model is being established and deployed in other countries in west, southern and east Africa.

MobiKash facilitates a simplified and rapid process for opening and managing bank accounts, with access from any type of mobile phone. MobiKash customers can pay bills, send money, manage their accounts and transfer funds in and between connected financial institutions via a mobile commerce platform architecture that has built-in, real-time connectivity to billers, banks, MFIs, government agencies, corporations and insurers, among other business entities.

The immediate goal is to serve the unbanked and the semi-banked. MobiKash allows for transactions in the $3 to $4 range, making banking effortless—and a stepping stone—for people to progress toward opening fully integrated mobile wallets and bank accounts. With MobiKash, an individual's accessibility to financial institutions—whether banks, microfinance institutions or savings and credit cooperatives—is increased.

With its network of business partners, MobiKash also offers tailored financial products beyond typical person-to-person mobile money transfer services that are commonplace in Africa. These services include a range of insurance services, loyalty programs, automated micro-credit, consumer credit history profiling, mAdvertising and easy-to-use solutions such as payroll, accounting, and supply chain management for small and medium-sized enterprises.

In the immediate future, MobiKash is adding Java applications for higher-end smartphones and access to the service through the Internet, ATMs, electronic point-of-sale and point-of-sale terminals. By using the Internet, MobiKash will provide a "money supermarket" Web site where users have access to many services. With the Internet service and access to mobile phone-based banking services, MobiKash provides the citizens of Africa the tools they need to transfer funds, pay bills, make investments and buy goods and services.

Establishing Trust

In addition to the geographic challenges of using banks, Africans do not necessarily trust an electronic banking system. By promoting simplified bank account opening and management processes, MobiKash is able to convince Africans that they can put money in electronic accounts and tie those accounts in a financial portal. Doing so allows customers to easily purchase goods and services, pay taxes, receive benefits or salaries and send remittances between countries. To help Africans understand the mobile ecosystem, MobiKash agents are available in local markets to set up accounts and help users understand how the system works.

Changes Ahead

Time will bring rapid changes. In the next three years, the adoption rate of mobile phones across Africa will grow exponentially; in Kenya, for example, more than 60 percent of residents could have devices by 2014. As more people use devices, more will learn to trust mobile banking services, as well as understand its advantages—such as not having to walk to a bank and wait in line.

Young people will adopt mobile devices and mobile banking services very rapidly. Today, almost every urban African teenager by age 18 has a mobile phone. Trust in the mobile banking system will grow as the younger generation—who already uses mobile phones for communication and data consumption—adopts mobile services. The youth market understands mobile applications and will take advantage of mBanking services to make purchases and transfer money.

The process of banking and commerce in Africa will be transformed in the next few years with the ability to execute financial transactions by mobile phone. The use of an independent mCommerce ecosystem will expand the banked population—and a population that can save and transfer funds will lead to enhanced national money flow and GDP growth throughout many regions of Africa.

***Duncan Otieno** is the CEO of MobiKash, overseeing all the MobiKash project implementations across Africa. He has more than 13 years of experience in banking, payment systems, external systems audit, IT, investment analysis, risk and compliance.*

Western Union Embraces Mobile Wallet

THE LONG-TIME LEADER IN MONEY TRANSFERS WAS QUICK TO RECOGNIZE THE VALUE OF MCOMMERCE. NOW CUSTOMERS ARE FINDING THAT PERSON-TO-PERSON MOBILE TRANSACTIONS PROVIDE A SAFER, FASTER AND MORE CONVENIENT OPTION THAN IN-STORE VISITS.

By Khalid Fellahi,
Senior Vice President,
Global Head of E-channels,
Western Union

Since 1871, Western Union has been in the business of person-to-person (P2P) money transfers, and currently has an 18 percent share of the global cross-border remittances market. The company transferred $71 billion in 2009 through a combined network of 435,000 agent locations in 200 countries and territories.

Mobility is changing what used to be a primarily cash-to-cash business. Traditionally, customers handed over an amount of cash at one Western Union location to make it available at another location somewhere in the world. These days, a mobile phone with a mobile money account, or "wallet," is likely to be at one end of the transaction.

The Global Strategy

Recognizing our unique position both as the leader in P2P money transfers and operator of an established global agent network, Western Union entered the mobile space. In 2008, we launched a pilot program in the Philippines, which allowed customers to transfer money into a mobile wallet and use it to pay for goods and

services. Once the successful results were in, we decided to accelerate our mobile channel development, mapping out a two-part global strategy.

Part one of this strategy enables customers to use cash transactions or money transfers from WesternUnion.com to move money into any mobile wallet in the world, or to send money from a mobile wallet that can get paid out in cash at any Western Union location in the world. Today, we can transfer money from or into selected mobile wallets.

To enable this service, we built a standard gateway to connect with multiple mobile network operators (MNOs) and in particular to the Sybase 365 platform. Once Western Union was connected to the MNOs, we were able to move mobile transactions into our system, thus integrating mCommerce into the existing business.

Part two of the strategy is to provide the ability to move money into and out of mobile accounts with an mBanking connection, thereby connecting to banks that have mobile channels. Currently, customers can transfer money from their bank accounts to mobile wallets, and vice versa.

Mobile Vendor Program

Leveraging the worldwide agent network and successful integration with the Sybase 365 mobile platform, Western Union recently introduced the Mobile Vendor certification program. This program enables banks and other mobile finance platform vendors to pre-integrate with the Western Union mobile money transfer system so that they can quickly and cost-effectively achieve a working mCommerce solution with international cash-in and cash-out capability.

The company has also started establishing partnerships with key players in the mCommerce space that already have active operations, or have publicly disclosed intentions to do so. Those partnerships include South African local financial institution Absa, Airtel in Africa, Bank of Commerce and Development in Libya, EnStream in Canada, Globe Telecom in the Philippines, M-PESA/Safaricom in Kenya, MTN Group in Africa and the Middle East, Maxis in Malaysia, Orascom Telecom in the Middle East, Smart Communications in the Philippines, the State Bank of India and the Tunisian Post.

Give people a no-frills bank account, and they start to budget and save.

A Sea Change in Emerging Economies

In developed economies, mCommerce is largely a convenience because most people already have financial accounts. In emerging economies, however, mobile opportunities are fundamentally changing peoples' lives. The mobile wallet has become a vehicle for banking the unbanked, giving many people access to a stored-value account for the first time. Give people a no-frills bank account, and they start to budget and save. Give them a way to receive their salaries and pay bills without having to travel on a weekday, and productivity goes up. Give them a secure place to store their cash, and the risk of getting robbed goes down. mCommerce is changing behavior.

A telco without a mobile money project today is like a company without an Internet strategy 10 years ago.

Additionally, once account holders develop a history of reliable income and spending patterns, they can get access to credit. People are even buying insurance this way—and many account holders are gaining access to insurance for the first time.

Using mobile phones to complete business transactions across town or across the country removes transportation, time and security hurdles, helping money change hands faster and accelerating the speed of emerging economies at all levels. Simply put, mCommerce is creating a sea change in the developing world.

Now Is the Time

The world has been talking about mobile money for 10 years, but now it's here. It's not just a concept anymore. The jury is still out regarding standards, whether we'll be riding the rails of the existing payment systems, such as Visa, MasterCard, the automated teller machine (ATM) networks or creating a new infrastructure, but initiatives are appearing all over the globe, on every continent. Even in Europe and the United States, where the idea hasn't had much traction, activity is starting to pick up. Now is the time. An operator without a mobile money project today is like a company without an Internet strategy 10 years ago. Widespread adoption will take some time, but it will increase exponentially during the next several years.

Khalid Fellahi *joined Western Union in 2002. As senior vice president and global head of electronic channels, he manages the company's global strategy and operations for the Web, mobile and account-based money-transfer channels. Fellahi has more than 20 years of experience working in the financial and service industries, including with Paribas / Groupe Compagnie Bancaire and Price Waterhouse Management Consultants. He holds an engineering degree with a major in information technology from the National Institute of Applied Sciences in France (INSA-Lyon), and an MBA from INSEAD.*

Compressing the mCommerce Value Chain

THE MOBILE PHONE WILL BECOME THE FOCAL POINT OF MCOMMERCE BUSINESS.

By Michael Kurz,
Head of Financial + Enabling Services,
Telefónica O2 Germany

Approximately 15 to 20 percent of mobile phone users in Germany use a smartphone, and that number is increasing every day. The mobile phone is important to users because they can do more with their handsets—search the Internet, use applications, reserve a car, buy a ticket—all based on smartphone technology.

Due to the high increase of smartphone use, customers will also get more familiar with the idea of buying goods or tickets via the handset. To make the most of this opportunity and create real customer value, market players and industries must partner closely and set up a gapless mCommerce ecosystem. That means that the right linkage from a targeted advertising campaign may be supported by a location-based service to the payment system over a mobile phone, and loyalty program incentives will point up the advantages of a mobile value chain.

Within this context, mobile payment plays an important role because it brings up the moment of truth—the moment when money comes into the ecosystem,

which justifies all other activities within the value chain. Because ultimately, customers have to pay for the value they like to get.

The question of what kind of company should set up a mobile payment method is complex, but mobile operators are uniquely qualified for this function. Their accounting systems have handled customer billing relationships for decades, and mobile customers are already familiar with paying for mobile (digital) content with their mobile phones. So it makes sense to extend this asset to a mobile payment system that also allows billing for physical goods. This was the starting point in Germany for launching the cross–mobile network operator (MNO) mobile payment system "mpass" for e- and mCommerce and, in near future, for point-of-sale (POS) purchases.

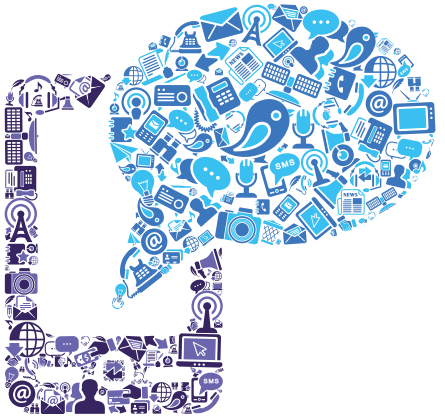
One-Click Introduction

Reach is king. Every mobile customer in Germany can register for and use mpass easily. The post-paid customers of Deutsche Telekom, Vodafone and Telefonica can use mpass just with a simple "opt-in," without typing in account numbers or bank data. mpass can be used in three use cases.

eCommerce. Customers are frightened about typing in their bank data or personal identification numbers (PINs). Most mpass customers do not need to do this; moreover, mpass is based on a dual-authorization procedure, which makes eCommerce shopping safe. First, customers order a product online or through the mobile portal, for example, and then enter the mobile number and a PIN. Users receive an SMS confirmation, and the amount is debited from their accounts. Some customers, such as those who use a company mobile phone, will have to register first. Those are the only requirements. The payment system is easy for customers, and it's good for merchants, who can do business with all mobile customers in Germany.

mCommerce. Customers told us that one-click shopping is key for them, because mCommerce product purchases are different from those made in the eCommerce context. In mCommerce purchases, for example, the value is much lower or the decision to buy is made much faster. Thus mpass was positioned as a one-click shopping method because customers just have to confirm the purchase by entering their PIN.

POS purchases. POS purchases will be available with mpass by the end of 2011. Customers will be able to hold their near-field communication (NFC)–enabled phone to a NFC–enabled POS terminal to buy goods and services. We strongly believe that NFC will lead the race as an industry standard against other mobile technologies, but that's a different story. By the end of this year, mpass will set up—together with other MNOs and one or two top merchants—an mpass@pos trial, where merchants will be equipped with POS and we will bridge the period until NFC is rolled out with an NFC sticker. Each sticker has an ID, which can be linked to the customer's phone number.



The mobile phone will become the focal point of the entire mCommerce value chain

Then everything will be in place so that customers can pay at the point of sale with their mobile phones. mpass@pos will offer a unique customer experience and a real alternative for cash. Merchants will save time per customer transaction and reduce their security and fraud costs.

mpass will transform the handset into a mobile wallet that accompanies the customer to any shopping venue. In that sense, simple, intuitive payment becomes another good example of why customers like to use their mobile phones, especially when they are on the go and in a mobile buying situation.

From a strategic point of view, mobile payments help operators strengthen their existing billing relationships. The mobile phone will become the focal point of the entire mCommerce value chain, because it enables and links advertising campaigns with mobile coupons, mobile payments and loyalty programs in a way that brings value to the customer and return to the entire ecosystem.

Michael Kurz *started his career at a consulting company specializing in marketing and sales in the areas of telecommunications and media. He moved to the strategy department of AOL Time Warner in Hamburg, where he helped launch a customised ISP and was responsible for the go-to-market aspect of the first DSL/resale offer of AOL. Kurz served as director of broadband at the Italian ISP Tiscali before joining O2 Germany, where he is responsible for the financial and enabling services business, in which the mobile payment system "mpass" is allocated.*

Looking Ahead to a Cash-Free Economy

THE PRIMARY CHALLENGE TO GAINING MARKET SHARE AND WINNING CUSTOMERS FOR MOBILE FINANCIAL SERVICES IS NOT TECHNOLOGY, BUT CHANGE MANAGEMENT.

By Tomáš Salomon,
Chairman of the Board,
Mopet CZ

The market is mobilised. Applications that were visible only on the Web yesterday are mobilised today—whether the application is retail, online banking or a social network. Mobility is a global trend that is only becoming more popular with the increased use of smartphones. In the Czech Republic, where mobile phones have a 100-percent adoption rate among the population, the phone is a very important personal device. People are so attached to their phones that it's obvious they can be used for many activities besides personal communication. Mobile payments are one of these opportunities.

Mobile phones offer two huge payment advantages for customers: cash replacement and convenience. As a cash replacement, phones can be used if customers don't have cash or if vendors don't accept cash for security reasons. Phones offer convenience by enabling remote payments or value-added services that could be delivered to the phones in many ways.

The biggest opportunity in the Czech market is replacing cash payments with mobile payments.

Mopet CZ created a model where banks and mobile operators cooperate to support a payment service. Mopet CZ worked with partners—four banks and three mobile operators—to create a market standard and assess the best way to create mobile payments in the Czech Republic. Consequently, because of this organisation and shareholder structure, Mopet CZ is aiming for 100-percent market share within the Czech Republic. Involving all the stakeholders in this way means that the service is not proprietary, but built as an open platform for other players to join anytime, which should make accessing and using it easier for both customers and merchants.

Motivating Users

Market research and analysis revealed what will motivate people to use the service the first time. For example, young urban dwellers would be most interested in ticketing opportunities, point-of-sale purchases, online shopping services, micropayments and transportation. Responsible parents, on the other hand, would want utilities, petrol and parking.

Research showed the biggest opportunity in the market is replacing cash payments with mobile payments. In the Czech Republic retail sector, customers pay for goods and services with debit or credit cards in 20 to 25 percent of transactions and use cash in the remaining 75 percent. Taking cash out of the equation leaves a lot of room for the success of mobile payments.

Customers are ready for universal mobile payments, but the service that's offered must be easy to use. For example, customers should be able to register for the service with all mobile and bank applications used today. Imagine that while accessing a bank's Internet application, there's a registration button for a mobile payment service. Pressing the button grants access to your account or money from the application or service. You transfer money online from your account to a wallet and then use it for payments. That's essentially one step to mobile payments.

The key to getting customers to register is motivation. To motivate people to use mobile services, customers must find the service convenient and valuable. And they must know how and where they can use the service—for example, parking, paying bills online, delivery payments, person-to-person payments and so on.

The same is true for merchants. Merchants must understand that they can increase revenues and use mobile services to offer new opportunities to customers. In the end, merchants want to make a profit, and they can do that with mobile services by encouraging remote payments, improving point-of-sale experiences and increasing those opportunities through marketing efforts. In the Czech Republic, Mopet CZ has tested and tried these services with the largest and most critical merchants—and the market is ready.

Managing Change, Not Technology

Motivating customers or retailers is not about improving technology. The technology for creating an effective mobile payments infrastructure is already in place and improving all the time. For example, consider smartphone use. Smartphone adoption in Europe is increasing rapidly, and it will increase in the Czech Republic by 50 percent by the end of 2011. This growth anticipates the adoption of mobile payments, although creating a market solution for customers with older and simpler phones, not just smartphones, would increase the use of mobile payments even more.

Eventually, even most of the card business—that 20 to 25 percent of transactions—will transfer to mobile phones. The technology will be part of the mobile itself or in the SIM card, so you'll forget the plastic—just leave it at home—and use only the phone. You'll have a virtual wallet—a linkage with your account at the bank and your mobile phone and transfer funds instead of cash. Operators and banks working together can support this business and speed up the trend. But the market is ready. There are no limitations.

Customers are ready for universal mobile payments, but the service that's offered must be easy to use.

The primary challenge to a successful ecommerce ecosystem is not technology but effective change management. Financial services companies must make sure that customers understand the value and scope of the services—that it's not only for parking or Internet payments- but letting them know how widely mobile payments are available. Moreover, specific services must be targeted to customers that need them. Having 100,000 customers who use a service only once will not create the market change—or opportunity—that 80,000 customers who use the service constantly will do. Similarly, building awareness in merchants about how mobile payments can help them run more efficiently and with increased revenues is important, as is making sure that as many merchants as possible use those services so that they are available to customers when they need them.

Financial institutions can improve the environment for customers, and make money at the same time. Customers will gain another option for making payments, and merchants will have a chance to improve customer satisfaction. Mobilising payments is a huge global opportunity for everyone.

Tomáš Salomon *initiated the mobile payments project within the Czech Republic that resulted in the joint venture Mopet CZ, of which he is now chairman of the board. Salomon has more than 15 years of experience in the finance industry. He has served as sales director and CEO for GE Capital Multiservis and been a board member and chief retail banking officer at GE Money bank in the Czech Republic. He also served as CEO and chairman of the board of Post Bank in Slovakia, achieving a turnaround of the bank performance with new product and distribution strategies.*

Mobile Retail: Going Places?

MOBILE DEVICES AND APPLICATIONS ALLOW RETAILERS TO DEVELOP TARGETED, COST-EFFECTIVE ADVERTISING CAMPAIGNS, BUT THE TECHNOLOGY IS YET TO BE FULLY LEVERAGED.

By Howard Wilcox,
Senior Analyst,
Juniper Research

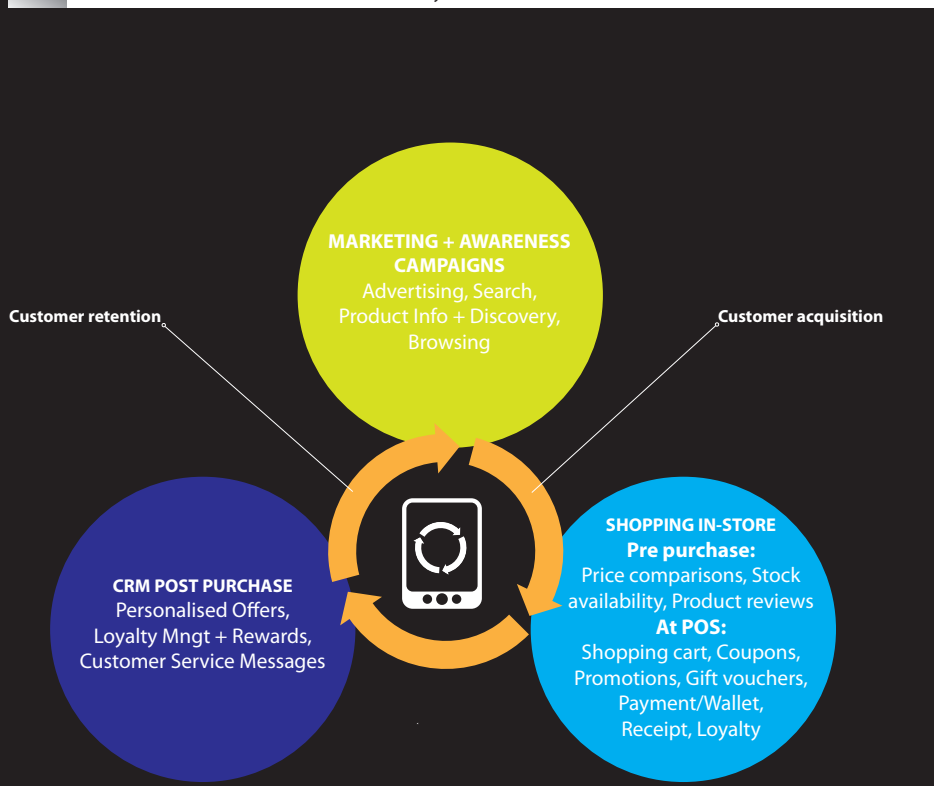
The involvement of the mobile device in the shopping experience begins well before the purchase transaction and continues through the in-store experience and beyond

The mobile device has a central role to play as customers shop at supermarkets, stores, bookshops and other retail brick-and-mortar locations. The rapid adoption of smartphones, the growth of the mobile Web, the availability of high-speed mobile broadband networks and the ever-growing usage of SMS are all offering retailers, brands and merchants new opportunities to communicate with existing and potential customers. These trends are enabling customers to shop by mobile. Major household brands, retailers and top-tier Mobile Network Operators (MNOs) are launching mobile marketing campaigns and extending existing campaigns. They are all seeing the promise of mobile as a retail tool and the potential for targeted, more cost-effective campaigns: What more do they need to do to take advantage of the opportunity?

MOBILE'S PIVOTAL ROLE

The involvement of the mobile device in the shopping experience begins well before the purchase transaction and continues through the in-store experience and beyond. Mobile plays a pivotal role in both customer acquisition and customer retention. Figure 1 highlights the integration of the mobile device within the retail shopping journey.

FIG 1: The Mobile Device in the Retail Customer Journey

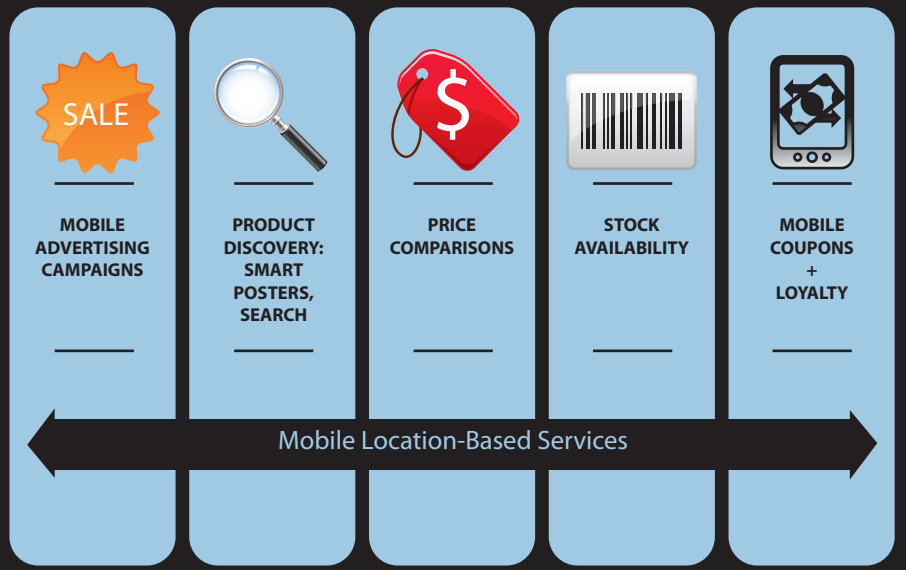


Source: Juniper Research

APPLIED TO RETAIL

Marketing and awareness campaigns, in-store shopping and post-purchase Customer Relationship Management (CRM) are possible by a mobile device, and the possibilities and functions available are increasing quickly. Retailers and brands need to be aware of mobile trends and incorporate mobile into their promotional campaign strategies. Customers' needs are evolving rapidly, and mobility is becoming a must-have for them. Location-based marketing services are also becoming more prevalent and can impact an ever-growing number of mobile retail functions (Figure 2).

FIG 2: Mobile Location Services Applied to Retail

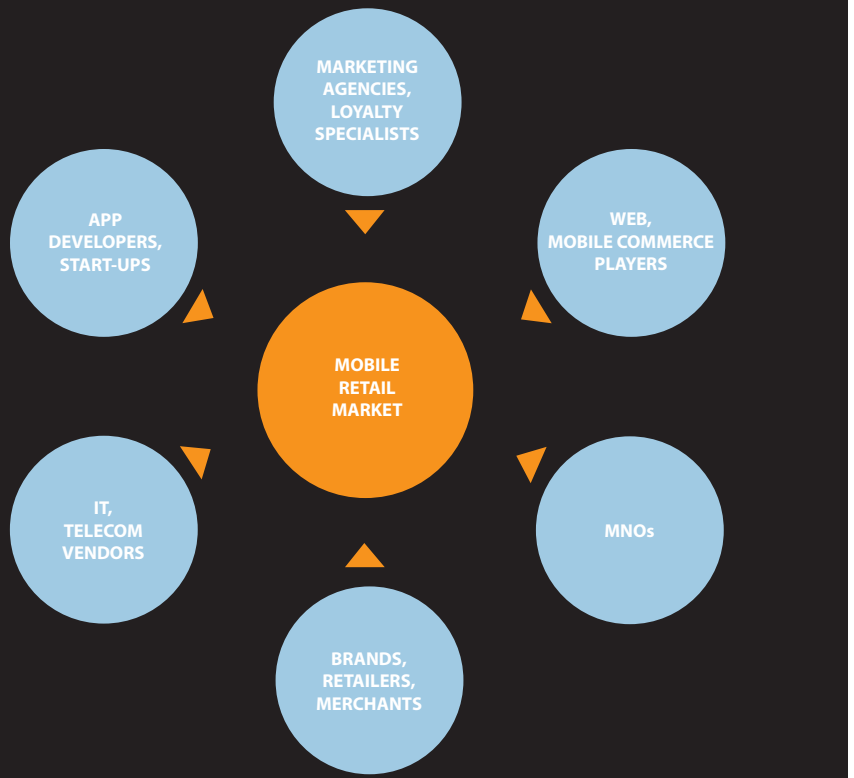


Source: Juniper Research

WHO'S PLAYING?

A better question may be "Who's not playing?" The sector is experiencing intense activity and interest from a diverse group of industry players (Figure 3).

FIG 3: Mobile Retail Ecosystem



Source: Juniper Research

Mobile plays a pivotal role in both customer acquisition and customer retention

All these groups have identified business opportunities in mobile retail, and more players from each category are expected to announce initiatives and products in 2011. Announcements from Apple and JCPenney in late 2010 highlight important developments in mobile retail:

- Apple announced the expansion of its iAd mobile advertising network to the UK and France in December 2010, with Germany to follow in January 2011. Advertising from companies such as L'Oréal, Perrier, Renault and Unilever will reach millions of iPhone and iPod Touch users.

- JCPenney, which has 1,100 department stores across the United States and Puerto Rico, is investing in its digital platform. It plans to launch a range of new mobile initiatives including a mobile commerce site, location-based check-in offers, advertising with Apple's iAd platform, mobile coupons, social networking integration and use of multiple platforms (iPhone, iPod Touch, iPad, Android, mobile web and SMS).

Mobile Retailer + Merchant Issues

Mobile retail value-added services and features such as advertising, coupons, smart posters, loyalty programs, gift vouchers and further service possibilities represent together a strong customer engagement proposition for retailers. However, the retail channel has both benefits and challenges for mobile (Figure 4).

Recommendations for Brands, Retailers + Merchants

The retail channel offers great potential for the ecosystem, but mobile is yet to be fully leveraged by brands, retailers and merchants. Now is the time for these groups to recognize that they:

- Have a ***significant opportunity*** to increase their revenues through highly targeted mobile marketing campaigns to users whose preferences they know. Failure to use targeted advertising may cause mobile users to regard advertising as spam.

- Can exploit the time and location relevance of the mobile channel with ***nimble campaigns***—for example, a lunchtime offer sent at 11:30 a.m. These types of campaigns should be frequency-capped to avoid over-exposure to the message. In addition, these groups should consider using mobile applications as the primary vehicle of a mobile campaign. Clever, engaging applications, properly marketed, will be far more effective at increasing brand awareness (and in some cases brand engagement) than other mobile channels.

- Should consider ***geotagging*** their products and locations. Within five years, more than one in four handsets in North America and Western Europe will be augmented-reality (AR) enabled. Geotagging presents a tremendous opportunity for brands because it combines mobile's inherent advantages-its personal nature, relatively high response rates, instant campaign measurement, advanced targeting—with location-based AR. Customers could be alerted to the vicinity of a store, be presented with an AR coupon when passing a store, or have the opportunity to see AR-augmentations of toys and gadgets. If they are looking at a toy through the viewfinder of the camera phone, for example, they may be presented with a 3-D digital animation overlaid upon their view of the physical world.

- Should engage ***mobile agencies*** while developing the campaign brief, thereby enabling the agencies to produce much more streamlined and effective campaigns. Integration between traditional TV and print campaigns with mobile is imperative. This new channel cannot be used effectively in isolation.

FIG 4: Benefits + Challenges Facing Retailers

Benefits
- Encourages fast response
- Personal + targeted messaging
- Avoids vanilla "everyone gets everything" marketing
- Location relevancy
- Demographic targeting
- Campaign tracking + feedback
- Campaign flexibility
- Cost effective
- Opportunity to exploit mobile channel "live" in store

Challenges
- Mobile marketing for higher value purchases
- Multi-channel integration
- Timely delivery is vital for SMS
- Retail applications target only smart phone users, not mass market
- Less appropriate for senior demographics
- Spam/privacy issues
- SMS character limit can restrict detail

Source: Juniper Research

In addition to these recommendations, brands, retailers and merchants can work with MNOs to generate offers, discounts and other initiatives that will encourage consumers to migrate to using their mobiles when they are shopping in brick-and-mortar stores. Successful campaigns will lead to increased revenues for merchants, and reduced customer churn and incremental Average Revenue per User (ARPU) for mobile operators.

It's a win-win for all!

Howard Wilcox *is a senior analyst with Juniper Research, where he leads the Mobile Commerce stream. He is author of the "Mobile Payments Markets" reports series, including Mobile Money Transfers & Remittances, NFC, plus reports on mobile coupons, ticketing and banking.*

Enterprises Embrace mCommerce

ENTERPRISES, RETAILERS AND GOVERNMENTS ARE USING MCOMMERCE TO EXPEDITE PAYMENTS AND CREATE MORE DIRECT RELATIONSHIPS.

By Gregory J. Dunn, Vice President, Product Management, Sybase, an SAP Company

> Successful mobile retailers are tying the notion of a mobile wallet to stored payment credentials from a Web-based session

The line between the Internet and the mobile Internet continues to blur. Tablets with touch screens are primarily to blame: If you're using an Apple iPad to access the Internet, are you online or are you mobile? Thus the distinction between eCommerce, which is already fairly well established, and mCommerce, which is rapidly taking off, is also blurred.

Distinct from eCommerce, however, mCommerce relies upon rapidly evolving device capabilities and user behaviors to progress. Mobility specialists will guide enterprise, retail and government to successful mass deployments.

Retailers Deliver Instant Gratification

Savvy retailers are mobilising their eCommerce content—creating mobile Internet sites that consumers can easily view from smaller screens and making the checkout process easier to navigate, too. Even on a smartphone, it's difficult to enter your credit card details in the same way that you would on a desktop or laptop, because you don't have the keyboard. Successful mobile retailers are employing the notion of a mobile wallet, storing payment credentials from Web-based sessions. The mobile interface simply triggers access to that account.

Amazon is one of the best examples. When a friend recommends a book, it takes just a few clicks to get it, because Amazon stores payment information. It's instant gratification. Amazon Remembers is another great innovation: Take a picture of anything you like on your smartphone and upload it through the app, which matches the object and allows you to buy it through Amazon.

There's space in the market for an aggregator that provides access to a mobile wallet account across multiple retailers

Shazam is another great mCommerce app. When I hear a song I like on the radio, I use the Shazam application to identify it and then buy it through iTunes. I can complete the purchase with a few clicks, because my credit card number is already stored in my iTunes wallet account.

These cases work because both solutions—Amazon and the Shazam-Apple iTunes combo—have loyal user bases. Other retailers have a harder time getting users to set up accounts with stored payment information. There's space in the market for an aggregator that provides access to a mobile wallet account across multiple retailers. Clearly PayPal and others are aiming to fill this role, and the mobile operators are working on it. At the moment, mobile operators play at the bottom end of the spectrum for small-value digital goods through premium short message service (PSMS) and carrier billing, while neglecting remote and mobile-triggered eWallet and mWallet payments. Mobile operators are looking to the future with their foray into near field communications (NFC) payments.

Retailers are also employing mCommerce to deliver coupons and offers, often integrating it with their existing loyalty programs. The big benefits here are immediacy and personalisation. Store coupons in your phone, and they're always with you. Or, say you remember that today is your friend's birthday. You can send a mobile gift certificate to his or her favorite retailer, and it will arrive on time. Moreover, mobile coupons can be redeemed and tracked at the user level, so issuers can personalize their offers, instead of mass-mailing them in the newspaper to everyone.

Mobile options work—retailers offering mCommerce options are finding that consumers get it. Oasis, a British fashion retailer, introduced a mobile gift certificate in addition to its standard plastic card. The result: mobile outsells plastic five to one, and the coupon is redeemed at a far quicker rate.

The third area where retailers are using mCommerce is in-store. Retailers are providing a combination of barcodes and quick-response codes—those two-dimensional bar codes you see on print advertisements. Promotion in the store instructs customers to simply take a picture of the tag using any device with a camera, and either send the photo via MMS to a short-code, or download a reader to receive more in-depth product information—think of this as your mobile concierge or shop assistant.

Consumer Goods Enterprises Connect with Customers

With Fast-Moving Consumer Goods, mobility allows customers to develop a direct relationship with the brand that's not always possible through retail channels. In a recent campaign run in the Philippines, Pampers encouraged customers to join a loyalty club using SMS. The company continually offered product discounts to club members, motivating them to stay with Pampers as their babies grew through the different sizes.

The program did drive significant incremental sales and market share, but even more significant was that the mobile campaign provided far greater details about buying habits than the company had previously known regarding quantity and frequency of purchases. Customers who diverged from the buying pattern they'd established might have tried a different kind of diaper, so Pampers sent them a coupon to bring them back into the fold.

Governments are starting to look also at how mobility can improve access to information and make transactions more efficient.

Governments Deliver Mobile Information

Political campaigns are well versed in using text messages to make important announcements and engage supporters. Governments are also starting to look also at how mobility can improve access to information and make transactions more efficient. The Infocomm Development Authority (IDA) of Singapore led the way with its 2008 launch of the Digital Concierge 2Go program, which provides restaurant, hotel and retail information to tourists via their mobile devices. Now IDA has announced the launch of mobile payment services for Digital Concierge 2Go through PayPal. Many other governments have begun to experiment with offering mobile services and applications that provide information about border wait times, government jobs, product recalls, embassy locators, exchange rates, contact information for government employees, economic indicators and the like.

The biggest opportunity for local governments is a mobile payment capability for parking. Enabling mobile payments would be much more efficient and cost-effective than installing credit card readers and communication capability into every meter.

Our Mobile Future

Five years from now, mobile phones will trigger all types of payments. Whether we'll be storing payment details on the phones themselves or using them to trigger payments from accounts that store our information in the cloud, the phone will be the channel, and it will make payments easier. Now is the time for enterprises, governments and retailers to start considering all the possibilities mobility brings: easier payments, increased engagement and even instant gratification.

Gregory Dunn *manages the global product management group leading the efforts for hosted and business solutions focusing on B2C services within mobile commerce, mobile operators, financial institutions and enterprise verticals for Sybase, Inc. With over 28 years of Telecommunications experience, Dunn also holds a Bachelors Degree in Economics and a Masters in MIS from the University of Maryland.*

Empowering the Consumer

CONSUMERS ARE READY FOR MOBILE MARKETING AND MOBILE PAYMENT. AS ENTERPRISES PILOT MOBILE INITIATIVES, THEY LEARN THAT GIVING CUSTOMERS BOTH VALUE AND CONTROL IS KEY TO SUCCESS.

By Armine Khan
Director of Operations,
Eagle Eye Solutions

Consumers engage with their handsets only for…something of value

Mobile coupons are attracting consumers to mCommerce services. Consumers appreciate both the discounts and the convenience of having the offer on their mobile phones and are reaching for their phones instead of their credit cards to pay. Coupon redemption technology, such as Eagle Eye Solutions, is already proving its worth at many retailers. The technology resides on the retailer's point-of-sale (POS) solution, either in physical stores or on the Internet, and allows value (in the form of a gift card, coupon or offer) to pass from the phone to the POS.

On the front end, Eagle Eye is easy to deploy and doesn't require retailers to purchase or install any new hardware. On the back end, it works like a credit card, leveraging existing financial networks to exchange goods and services for the value from mobile coupons and gift vouchers.

Consumers Get It

Successful deployments of mobile coupons prove that consumers are ready for mobile marketing and payment.

Harveys furniture stores in the UK broadcast on television the world' first digital coupon service. Viewers simply sent a text message to a shortcode featured in the ad and received a 15 percent discount to the stores. The campaign generated a 20-fold return on investment (ROI), proving itself to be 10 times more effective than comparable email campaigns. With these types of benchmarks, Harveys has continued to advertise with mobile coupons.

Buy Me a Drink is an online gifting service that allows people to instantly send a voucher for a free drink to someone's mobile phone. Vouchers can then be redeemed at any of the Corney & Barrow Wine Bars located in London. Drink buyers simply choose a type of drink to send (red or white wine, champagne, spirits, cocktails or beer), enter the recipient's mobile number and pay. Recipients get the voucher via SMS and redeem their drinks by showing the message on their mobile phone at the bar. The service can be used peer-to-peer or by companies for promotions or sending drinks to their staff. Each voucher is fully traceable, and redemption rates for promotional activity are high—up to 50 percent.

Aurora Fashions, the parent company of women's clothing brands Coast, Karen Millen, Oasis and Warehouse, started offering mobile gift vouchers on the Oasis Web site in addition to standard paper certificates in 2009. Mobile gift givers specify the amount they want to give, enter the recipient's information and phone number, add a personal message and pay with a credit card. The recipient gets a unique code on her phone that she can use to pay for goods at the till inside any Oasis standalone store. Within five weeks after the program's launch, mobile gift vouchers were outselling their paper cousins by three to one. In early 2011, the mobile ratio had grown to five-to-one. Oasis mobile gift voucher sales for the 2010 Christmas season increased 200 percent over the 2009 season. All of Aurora Fashion's other brands now accept mobile gift vouchers as well, and the early results are equally promising.

Whoever fully empowers the consumer will have the most to gain from mCommerce

In the next couple of years, the mCommerce ecosystem will come together

Offering Value

Because many businesses are launching mobile strategies, it's important to know that mobility isn't magic. If the business doesn't have a legitimate business plan, mobility can't provide one. The story of today's rush to mobility strategies is similar to what happened a decade ago during the Internet boom. Like successful Internet startups then, mobile initiatives succeed now when they leverage proven business models or are introduced as part of an established business.

For example, mobile works very well as part of loyalty programs, including coupons, discounts and other offers tied to a specific brand. The Starbucks Card Mobile application, which lets you pay for your coffee with your handset, and the myStarbucks application, which helps you find the nearest café, are great examples of successful mobile offerings.

For enterprises, it's important to remember that consumers engage with their handsets only for a phone call, text message or application that delivers something of value. For retailers, that's dollars or products. Mobility allows retailers to communicate with consumers directly, but they can also get customers to interact both by delivering something of value and by giving consumers complete control over the transaction. Then—and only then—will consumers interact with retailers.

Whoever fully empowers the consumer will have the most to gain from mCommerce. In the next couple of years, the mCommerce ecosystem will come together. Mobile marketing will become much more personal. For example, social networking is moving into the mobile realm, location-based marketing is on the rise, mobile banking is becoming more pervasive. Phones are getting smarter. Networks are getting faster and able to handle more data. Once these technologies are combined, we'll start seeing new ideas and new sources of revenue.

LIGHTNING SPEED

The next five years will bring change in the enterprise-consumer relationship at a rate we've rarely seen before.

NFC

The biggest roadblock to wider mobile payment adoption is the integration of multiple redemption scenarios, multiple handsets and existing POS systems. Until now, there haven't been any mobile payment solutions that support all of these components. Retailers don't want to invest in a technology that can serve only a fraction of shoppers or buy new hardware if they don't have to. They also don't want to slow down the checkout lane. They want a solution that will work today and scale well into the future.

Some retailers have experimented with delivering barcodes on smartphones and then scanning the barcode at the POS. However, this system falters from too much variation in the reflectivity of the glass used in different phones and background lighting in the stores themselves. These conditions result in lost time and a higher-than-acceptable failure rate (that is, higher than zero percent).

Near-Field Communications, or NFC, could drive a streamlined ecosystem. NFC requires customers merely to tap their phones on the POS terminal. Eagle Eye is deploying NFC solutions today that recognize customers instantly and allow them to redeem coupons or enter loyalty card information. Entering a four-digit personal identification number (PIN) secures the transaction.

The next generation of handsets will all include NFC technology, and people without NFC-enabled phones will be able to buy an attachment to add the functionality. With broad acceptance, NFC will drive increased mobile coupon redemption as well as mobile payments.

A New Paradigm

Mobility in poised to become the basis of a new paradigm for enterprises' relationships with their customers. Interactions between companies and their customers will become real time and event-driven. POS systems will move away from the tried-and-true cash register and go mobile, with retail sales reps supplied with portable payment-acceptance devices. Consumers will also make payments through their mobiles. Today's smartphones don't yet have the capacity to completely replace our wallets, but future generations of super-smartphones will. The next five years will bring change in the enterprise-consumer relationship at a rate we've rarely seen before.

Armine Khan *is director of operations at Eagle Eye Solutions.*

mCommerce Raises Stakes for Retailers

SMARTPHONES ARE HELPING RETAILERS MARKET DIRECTLY TO THEIR CONSUMERS. THE ONE-TO-ONE POSSIBILITIES ALLOW A NEW KIND OF TARGETED ADVERTISING.

By Suhail Bhat,
Policies and Initiatives Director,
Mobile Entertainment Forum

Throughout 2010, a flurry of announcements from players in the mobile value chain placed the spotlight squarely on the potential of the mCommerce market and highlighted it as a valuable revenue driver in a tough and competitive economic environment.

For good reason, retailers are paying more attention to mCommerce. ABI Research estimated that North American sales of physical goods purchased via a mobile device in 2010 exceeded $1 billion (£650m), a 33 percent increase over its 2009 forecast of $750 million. In September 2010, Amazon reported that customers around the world ordered more than $1 billion of products from its site using a mobile device. And in November, AT&T Mobility, T-Mobile USA and Verizon Wireless announced the formation of a joint venture chartered to build ISIS, a national mobile commerce network that aims to fundamentally transform how people shop, pay and save.

Much of mCommerce's growth is attributable to the popularity of mobile applications for smartphones.

This explosion of mCommerce is in direct relationship to the advent of smartphone technology that has enabled easy access to mobile content such as full-length music, videos, social network sites and the Internet. Consumers have also acquired a much bigger appetite for using their mobile phones as more than communications devices. This uptake is due to good user experience and the accessibility to diverse and rich media content.

The quality, reliability and simplicity of the user experience have been significantly enhanced by enabling services, which give the media, content owner or retailer the necessary visibility and control they need. A good example of an enabling service that showcases mCommerce's value proposition is the customer insight that provides user segmentation and is essential for targeted advertising, personalisation and product or service recommendations.

Much of mCommerce's growth is attributable to the popularity of mobile applications for smartphones. Mobile applications are changing how consumers use their mobile phones by providing users with new tools and resources. Companies from various industries are adding mCommerce applications into the mobile mix, thus creating new revenue streams. But mCommerce is not just about applications.

Broadly speaking, mCommerce encompasses any digital content, goods and services purchased and delivered on the mobile device, as well as any tangible products purchased through the handset but physically delivered. mCommerce supports several channels: Applications and mobile storefronts are cited most often, but premium SMS also plays a significant role, as well as mobile coupons, mobile-enabled loyalty programs, location-based offers and mobile gift cards. All these options move consumers toward making purchases in-store.

Despite all the evidence that points to consumers wanting to use their mobile devices more to shop, some retailers are reluctant to develop a definitive mCommerce strategy.

Retailers off to a Slow Start

Despite all the evidence that points to consumers wanting to use their mobile devices more to shop, some retailers are reluctant to develop a definitive mCommerce strategy. This hesitance prevents the market from realizing its predicted potential. According to April 2010 statistics from BT Expedite, only 5 percent of U.K. retailers have an mCommerce presence, and only 24 percent are planning to develop one.

Of course, exceptions are out there. Macy's Inc., which owns both Macy's and Bloomingdale's, has an mCommerce Web site for its Macy's-brand department store chain that allows users to search for and purchase products, redeem special online sales offers and locate product availability at nearby store locations. Some retailers report that mobile-optimized Web sites account for nearly 3 percent of overall site traffic and 2 percent of total revenue. But overall, the potential of mCommerce is seemingly ignored by retailers, as the industry instead maintains a strong focus on the tried-and-tested success of the eCommerce channel.

Time to Address Security + Privacy

The retail industry's caution may be influenced by the apparent complexity of the mobile value chain. Moreover, a debate is raging among players throughout the mobile and retail ecosystem about the security of mobile payments. On top of this concern, the public is worried about privacy and positive consent.

Security and privacy are complex areas to navigate, which is why the Mobile Entertainment Forum (MEF) is working with its membership on these areas in 2011. Mobile industry players, retailers and regulators must work together to try and ensure that consumers and merchants have confidence in using a mobile device to do commerce. mCommerce provides retailers with great opportunity, but the industry must resolve these concerns. If they do, it's very likely that 2011 will see an mCommerce revolution.

2011 will see an mCommerce revolution.

Suhail Bhat *is responsible for driving policy on issues affecting the global mobile entertainment industry and managing MEF global initiatives to advance member interests and ensure industry growth. He has led numerous projects, including ad-funded mobile entertainment, smart enablers, mCommerce and the development of a regulatory database for members. Prior to MEF, Bhat worked at ICSTIS, the independent regulator for premium rate services. Bhat ran industry-wide consultations and was the lead on the development of the ICSTIS Code of Practice, which governs all mobile direct-to-consumer transactions in the U.K.*

New Strategies for Mobile Marketing

THE MOBILE WORLD OFFERS AN EXCITING SET OF NEW OPPORTUNITIES FOR MARKETING DIRECTLY TO THE CONSUMER. TIME TO LEARN NEW TECHNIQUES.

By Michael J. Becker,
Managing Director North America,
Mobile Marketing Association

In just two decades, mobility has matured from a communication medium used by the executive road warrior and technology-savvy teenager within niche markets to a personal and commercial medium for the global masses. In a world with more than 3.75 billion unique mobile users[1] and more than 10 billion mobile devices,[2] hardly anyone is immune to the influences of mobility.

This mobile phenomenon is fundamentally changing the nature of personal communication, commerce and marketing. The resulting revenue streams are already apparent. In 2010, Google announced it surpassed $1 billion in global mobile advertising revenue,[3] and eBay processed nearly $2 billion dollars in mobile transactions, up from its previous $1.5 billion estimate.[4] ABI Research estimates that by 2015, more than $119 billion of goods and services, or 8 percent of all eCommerce sales (transactions conducted through electronic media), will be sold via mobile devices.[5]

The mCommerce opportunities are just beginning; in fact, tens of thousands of small and large business alike, including Best Buy, Coca-Cola, ESPN, P&G, Steve Madden, Target and TCBY Yogurt, are embracing mobile marketing to make their brands more accessible.[6] They are going directly to where their customers are—and engaging them with mobile marketing and mobile commerce.

Consumers and marketers are employing mobile solutions to engage each other in a wide range of mutually beneficial ways through all eight mobile media paths (SMS, MMS, email, voice/audio, mobile Internet, applications, content, and proximity channels).

Marketers are using mobility for:

Mobile Advertising. Marketers are placing text call-to-actions in SMS messages and static and rich media banners within MMS messages, mobile Web sites and applications to invite consumers to engage a brand. Mobile advertising creative can be as simple as announcing a product offering or as engaging as offering multi-channel (wired, mobile Web and apps) branded utilities.

A great example of this is the GMC MileageCalculator, a program powered by Microsoft Advertising in the third quarter of 2010 in North America. The GMC MileageCalculator invites consumers to visit a mobile Web site and enter their vehicle's miles per gallon, their estimated annual highway miles driven and their average gas price per gallon. Consumers found out the amount of money they could save per year by driving a GMC Terrain. More than a million unique users participated in the program, for an estimated $2.8 million in potential savings to consumers.[7]

Loyalty Programs. Marketers are engaging consumers with a wide range of loyalty programs that offer value to the consumer, such as exclusive content and experiences, VIP access to events and programs, coupons, rebates, vouchers and more. One of the most successful mobile loyalty programs is The Coca-Cola Company's My Coke Rewards Program.

Customer Care. Increasingly, marketers are recognizing that customer support can be enhanced through mobile. Mobile-enhanced customer care can increase customer satisfaction and customer engagement and reduce support costs. Kaiser Permanente, a leading healthcare provider in California, saved $275,000 in one month when it piloted an SMS appointment reminder service.[8]

Social Media. Marketers are embracing the intersection of social media and mobile. In 2009 and 2010, Volkswagen launched its GTI car in North America solely through mobile social media programs. It sold hundreds of cars and reduced the cost of sales by more than 90 percent.[9]

Consumers are using mobile solutions to search for products, check product reviews and offers, find store locations near them, participate in loyalty programs, post comments and feedback regarding their experiences with marketers' programs, and so much more.

Mobile Commerce Starts with Mobile Marketing

MMA defines mobile marketing as a set of practices that enable organisations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network. Mobile marketing engages customers at every stage of the customer lifecycle, from awareness to brand-building advertising, prospecting, lead generation, customer relationship management, upselling, customer care, social media engagement and retirement stages.

The two approaches for mobile marketing are:

- Directly engaging consumers through one or more of the eight mobile media paths, including SMS, MMS, email, voice, mobile Internet, applications, content and proximity channels
- Indirectly engaging consumers through mobile-enhanced traditional and digital media, such as calls to action within television, print (newspapers, magazines, flyers, direct mail), radio, displays, Internet or other promotions that invite consumers to use their devices and respond.

Direct mobile marketing communication takes two forms: marketer initiated and customer initiated. For marketer-initiated communications, consumers must give prior permission to use their personal information before the marketer can initiate the communications. For customer-initiated communication, the consumer must be aware of the marketer's mobile services.

Once a consumer has engaged through one or more of the available mobile media paths, the door to mobile commerce opens. The exact nature of the engagement will depend on the consumer's interests, preferences, the specific context of the engagement (time, activity, location, previous history with the marketer and mode of communication) and the marketer's business and campaign / program objectives. For the best success, tailor the program to the consumers' mobile devices. More specifically, the marketer should optimize the Web site for the mobile device and network.

Mobile device optimization ensures that the user experience is optimal for the time and place the customer is engaged.

When optimizing a user experience, the marketer must consider:

- The mobile medium used to engage the consumer
- The consumer's device (feature phone, smartphone, tablet computer, game terminal and so on)
- The device's features, including messaging capabilities, Internet capabilities and screen size (there are literally hundreds of parameters to consider).

To be optimized for the mobile network, you must consider the different networks, 2G, 3G, 4G, WiFi, Bluetooth and other proximity channels your customers may be using. The capabilities and the types of programs allowed to run over each of these networks will vary by service provider.

Leading mobile marketing solution providers can help you manage all the media, device and network parameters to ensure you're providing customers an optimal experience compliant with industry regulations.

Mobile Commerce Billing Methods

Nearly any good or service can be sold via mobile commerce, including native digital goods, converted digital goods and services and physical goods and services. For example, one can sell a ringtone, game or application, images, newspaper, an electronic book or magazine, event tickets, printers, cartridges, shoes and cars. (Table 1 illustrates the three main product categories that can be sold through mobile.)

To complete a transaction, four billing methods and incentives can be employed:

Bill-to-Phone. Bill-to-phone methods such as premium SMS, wireless application protocol (WAP), and application or mobile Web billing allow organisations to charge a consumer for a product or service consumed on the phone. In the United States, subscribers can also make a charitable donation and have the value charged to the mobile phone bill. The mobile operator will, except for charitable donations where 100 percent of the proceeds are passed through to the charity, withhold anywhere from 30 to 60 percent of the fees charged to the consumer, leaving the rest for the enterprise to take or share with its partners.

To conduct bill-to-phone methods, marketers need an application provider or aggregator that has a built-in billing system that meets operator requirements. Although digital goods and services can be purchased now using bill-to-phone methods, some mobile operators are beginning to experiment with the ability to charge physical goods and service to mobile phone bills; however, such services have not been publicly released.

Credit Card Billing. To enable mobile customers to pay by credit card, marketers

TABLE 1

Product types	Description	Examples
Traditional digital content	Made for digital content and services consumed mobile media	Ringtones, games and applications (*Angry Birds*, Kraft's *iFood Assistant*), chat and alert services. Virtual credit for games (weapons upgrades for *Tower of Madness*)
Nuevodigital content	Traditional content converted to digital, distributed through mobile media and platforms	Music, books (Kindle version of *Mobile Marketing for Dummies*), movies (download and streamed)
Traditional goods and services	Tangible and intangible goods and services consumed offline	Nearly anything. Examples include apparel, consumer packaged goods, money transfers and remittance, taxis, movie tickets and marketing

either work with an application provider to integrate mobile media storefronts into their existing eCommerce solution, or they work with mobile billing specialists such as Bango, Billing Revolution, PayPal and others that can manage the whole process. With this method, consumers can enter their credit card information via their mobile phone and have the transactions billed to their credit card.

Stored Value Billing. To bill against a mobile wallet, gift card, voucher, loyalty card, loyalty program point redemption and so on, the marketer, through its application provider, enables a consumer to buy a digital or physical product or service against the stored value balance. One great example in the U.S. is when people use their Starbucks loyalty card on their phone. Individuals can charge up their balance at a Starbucks store or via the Starbucks application on the mobile device and purchase their coffees by showing the phone upon purchase. The value of the purchase is debited against their account. Once the account is depleted, the top-up and depletion cycle happens all over again.

Point-of-Sale Payment. Next-generation mobile devices will be equipped with "contactless payment" chips such as Near-Field Communications (NFC), Radio Frequency Identification (RFID) and RFSIM (RFID on the SIM card) that are linked to debit or credit accounts. These chips emit a local frequency transmission that can be picked up by a point-of-sale (POS) solution when the mobile device is waved over it. Once the mobile device is detected, the POS can initiate a transaction.

In addition to these four billing methods that capture the value of a transaction via mobile, marketers can also consider offering incentives to engage consumers or employing ancillary capabilities to enhance the relationship. Leading consumer engagement incentives include coupons, rebates and related discounts, chances to win prizes, sample products and experiences.

Incentives, combined with these four billing methods, can lead to increased consumer engagement and participation in the program. Recently launched loyalty programs that link with traditional retail in the United States include programs from Facebook Places, Foursquare and shopkick. For example, shopkick consumers who visit a physical store may opt-in to receive alerts on their phones; when they respond to the alert, they get kickbucks, or loyalty points, that can be used to purchase goods and services.

The Meeting of the Waters

Mobility is changing the face of communications, marketing and commerce forever. However, we are only at the beginning of the change. In the Brazilian jungle, the Amazon river (consisting of a rich clay color) meets the Rio Negre, a tributary (consisting of a deep black color). What makes this "meeting of the waters" special is that when the two rivers meet, they don't immediately merge. The two rivers run at different speeds, have different temperatures and are made up of different materials and densities. Rather than immediately merging, they co-exist in the riverbed for nearly four miles. The same thing is happening in marketing today. The two rivers of digital marketing and traditional marketing co-exist in the same consumer engagement river bed. And, like the Amazon and Rio Negre, it will take time for them to merge.

Michael Becker *founded mobile marketing solutions provider, iLoop Mobile, which earned the 2007 MMA Innovation of the Year Award. Now the managing director of North America MMA, Becker also serves on the dotMobi Mobile Advisory Group Steering Committee and Direct Marketing Association's Annual Programming Advisory and Mobile councils.*

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Enterprises Increase Profits with SMS

RETAILERS CAN USE MOBILE CUSTOMER RELATIONSHIP MANAGEMENT TO TARGET THEIR MARKETING EFFORTS AND INCREASE ROI.

By Scott Miller,
Director Product Management,
Sybase, an SAP Company

SMS is the most widely used messaging service and has the broadest reach of any communications channel today

By the end of 2010, according to the International Telecommunication Union (ITU), more than 70 percent of the world's population will have a subscription to mobile communications services. Enterprises can engage these mobile phone users through mobile Customer Relationship Management (mCRM), leveraging familiar forms of communication, especially SMS, to increase profits.

SMS is the most widely used messaging service and has the broadest reach of any communications channel today. Portio Research predicts that by 2013, more than 10 trillion SMS messages will be sent. SMS has become the clear leader in messaging because the majority of mobile phones support SMS, and the messages are regular, familiar traffic on mobile operator networks.

The immediacy of SMS makes these communications extremely effective. Text messages appear on customers' mobile phones in near real time (SMS messages reach their destination much faster than email), and most consumers are responsive to their text messages, even if they habitually ignore email and voice mail.

All these factors mean that mobile messaging can help organisations move beyond standard customer communications to send mobile message campaigns to a vast, ready and eager mobile consumer base.

mCRM messages allow organisations to:

- Connect to mobile subscribers using a wide array of mobile phones from different manufacturers
- Reach a global audience
- Appeal to every demographic, especially younger consumers
- Reduce the cost for introducing new services

It provides the tools for any enterprise to reach consumers through all stages of the customer lifecycle via SMS on their mobile phones. With mCRM, you can develop a new, highly effective communications strategy for reaching current and potential customers—while driving new sales and revenue channels.

Repeat business from loyal customers separates highly successful companies from those that merely survive to the next sales cycle. mCRM helps organisations engage with customers throughout the customer life cycle: Awareness, Acquisition, Post purchase and Retention.

What does that mean? Let's meet Rachel, who is just entering a relationship with a brand name shoe store, and see how the store, using mCRM, engages her every step of the way.

Awareness. When a mall opened up in Rachel's home town, she signed up to receive store information about the new retailers. She selected a dozen stores with brands that she liked and gave the developer's sales and marketing team permission to share her contact information with those stores. One of the stores Rachel was interested in, a brand name shoe store, decided to offer a discount for all customers visiting on opening day.

Acquisition. Rachel received the discount offer on her mobile phone and visited the store on opening day. When she left the store she had purchased two pairs of shoes using her mobile coupon.

Post purchase. Two days after opening day, the shoe store sent an SMS asking Rachel to fill out a survey about the store's merchandise and service. Rachel filled out the survey and received a 10 percent discount on her next purchase.

When the store scheduled its next sales event, it sent Rachel a text message alerting her of the date, special offers and store locations. On the first day of the sale, the shoe store sent Rachel an SMS reminder about the sale and a 15-percent off coupon to be used for the purchase of one item.

Rachel did visit the store during the sale and made a number of purchases. The shoe store tracked all her purchases, storing the customer information in its systems.

Retention. In the fall, the store planned an end-of-season shoe sale for summer and spring shoes, belts and purses. It sent Rachel a text message with information about the sale and offered her a pre-sale opportunity only for customers who had made purchases on opening day. She could purchase any of the store's items the day before the sale opened to the public.

Rachel purchased a pair of shoes and two purses. The store noted the purchases in its system and now sends scheduled messages that alert Rachel to upcoming sales events in her area and other popular locations. The company also notifies Rachel of new shoe lines and store specials. The store has become Rachel's one-stop shop for all her footwear needs. She is loyal to the store because she receives regular communications that give her inside information about the store's offerings and specials—the store treats her like a valued customer.

The example of how the retail shoe store effectively manages the customer relationship with Rachel demonstrates how mCRM goes hand in hand with mCommerce. mCRM introduces multiple options for interacting with consumers throughout the entire customer lifecycle, maximizing opportunities to connect and upsell. This personal marketing approach increases customer loyalty and retailer profits.

Scott Miller *brings more than 10 years of mobile market experience to Sybase, with a background in financial analysis, business formation, business development, market research, and product management. Previously, Miller was a partner at The Faultline Group, a management consulting firm, and vice president and senior wireless analyst at C.E. Unterberg, Towbin, a technology-focused investment bank.*

Launching an mCommerce Service

ANY COMPANY THAT PLANS TO LAUNCH AN MCOMMERCE SERVICE—WHATEVER IT MAY BE—CAN BENEFIT FROM STANDARD ADVICE.

Launching your first mobile commerce service can be a daunting prospect for banks, merchants or enterprises. The mobile world has its own unique set of technical standards and terminology, which can be very confusing at first.

For example, what you call a "text message," your supplier calls an "SMS"; what you call a "vanity number," they may use the term "TPOA." Launching any mobile service can benefit from following some basic principles. This advice has been collected from our customers, some of which you will find featured elsewhere in this guide.

The Basics

Which mobile channels will you use?

Whilst many services launch with an iPhone and/or Android application, will this reach your target audience? Text messaging reaches all phones, Mobile Web reaches most phones and applications reach only specific phones. When designing your service, think about what devices your target audience uses.

By Diarmuid Mallon,
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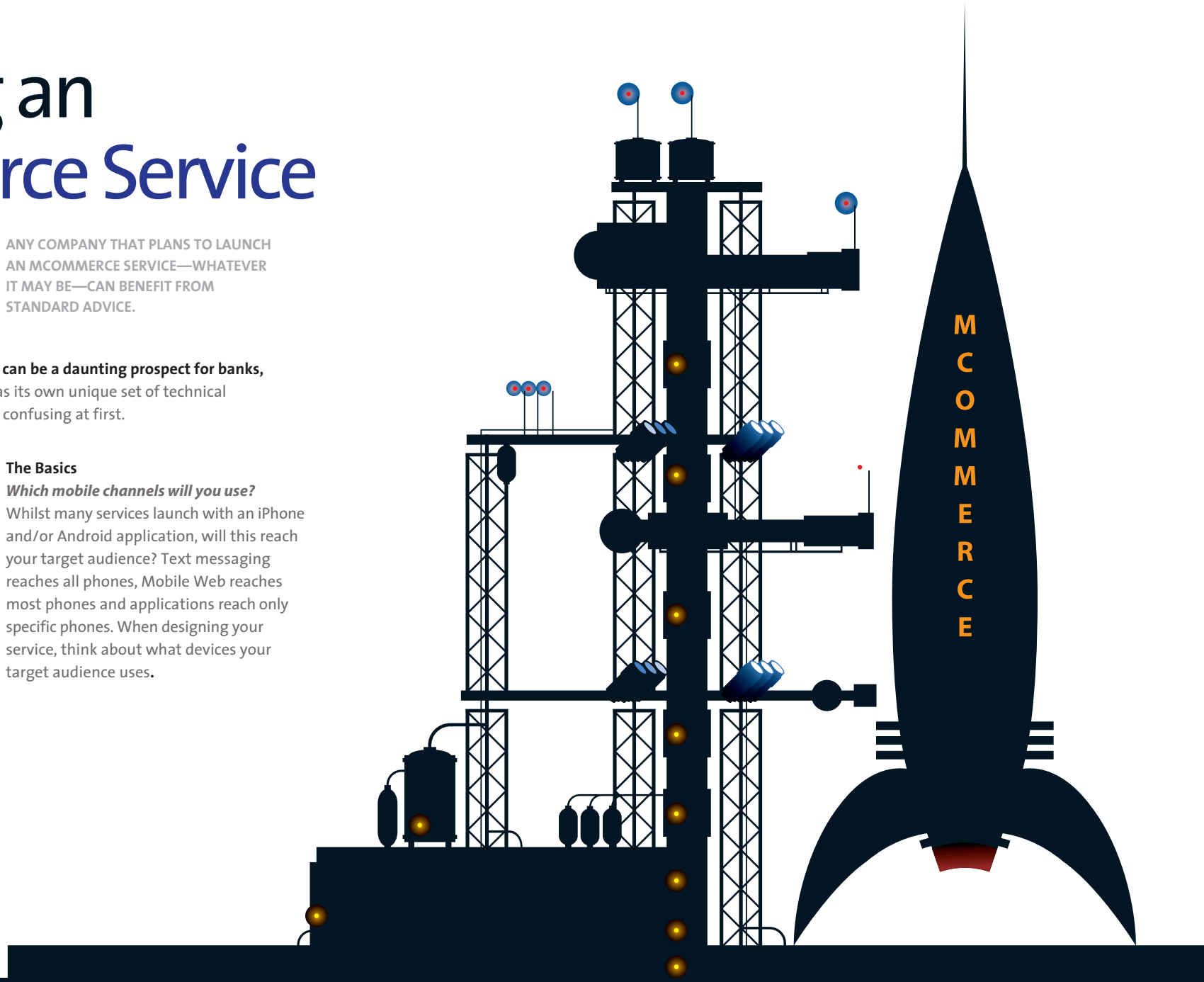
mCommerce,
Sybase, an SAP Company



Shortcodes. Most services have a text messaging component, ranging from initial sign-up for the service to alerts. You will need a shortcode to send and receive text messages. This number becomes part of your mobile presence or brand, so select one carefully. Local telecommunication regulations might also restrict what numbers you can use.

Longcodes. Shortcodes work only with local consumers' mobile phones. If you want to support international visitors, you will need a longcode in addition to your shortcode.

Use an aggregator. If you want to be accessible to all consumers, then you need to be connected to all the local operators. Using an aggregator avoids building and maintaining these connections, because they are pre-connected. Aggregators can also advise you about local telecommunication regulators.

Which phones will you build applications for? Any market has more than a thousand handsets in use, so building device-specific applications is not practical. Select the key devices for your market or customer base, then backfill with either text or mobile internet versions of the service.

Project Planning

When planning your first mobile project, your project plan should incorporate:

- ***Operator delays***. Most services need approval, so allow time for this. How much time you need will vary by operator and the nature of your service.
- ***Certification.*** If you are launching an application-based service, some operators will require certification before release. This is also true for app stores such as Apple's iTunes Store.
- ***Approval.*** Operator approval is required if your service will be using operator billing. Using an aggregator will help you better plan for these situations, as they can advise you about operator-specific requirements, regulations and certification times.

Advertising should not be limited to banner advertisements. Make use of all the customer touch points.

Designing Your Mobile Service

There are basically two approaches to launching a new mobile service: the big bang, which launches with all functionality present from the start, and the staggered approach, which launches with a minimal set of key functions and evolves slowly over time.

Experience has shown that the latter is the better approach. However, to decide which approach is better for your circumstances, consider these points:

- ***Early on, determine your objectives.*** What is essential for the service, and what is a nice-to–have?
- ***Don't include the kitchen sink.*** Be realistic in what is in the product. What is the minimum set of features that makes the services functional? Too many features will make the service harder for your customers to understand.
- ***Break out future functions for future phases.*** Add new features gradually, and bring your customers along with you. Work on the flow of your mobile service. The mobile experience is very different from the PC.
- ***Include all the operator-required screens and verbiage.*** Depending on the service, operators will have regulations on what you can, cannot and must say in your applications.
- ***How to get help, contact info.*** What are the phone numbers and URLs for your service?
- ***How to cancel the service.*** Most operators have strict rules on this.

Manage Costs

Unlike the Internet, where consumers incur no direct costs for accessing Web sites, mobile users are acutely aware of costs relating to mobile services. When designing a mobile service, you should consider:

- ***Length of text messages.*** Determine early on if you will use one text message (160 or 70 characters for non-roman alphabets) or two (320 or 140 characters). Two messages cost twice as much (both for the bank and, in some markets, the customer) and will work differently on different phone models and for different operators.
- ***Screen Size.*** When designing your messages and layouts, keep in mind that some customers will have smaller screens.
- ***Not everyone owns an iPhone or BlackBerry.*** Order several test phones of different brands, models and operators and document the experiences.
- ***Keep Mobile Web Lite***. Keep graphics to a minimum on mobile Web sites. Fewer graphics keep the user experience smoother and reduce the risk of consuming users' mobile data plans.

Going Live

The feedback we get consistently from our customers is that you can never advertise your mobile services too much. For example, an mBanking customer told us that they found that online banner ads worked extremely well for enrollment; when this bank stopped online banner advertising, enrollment dropped by as much as 60 percent.

Advertising should not be limited just to banner advertisements. Make use of all the customer touch points you have: statements, Web site and print ads. Often forgotten are your physical stores or branches. Make sure your staff is not just aware of, but promotes your mobile services.

As one customer recently told us, "The best mobile solution won't succeed if no one knows about it—adoption is crucial."

Diarmuid Mallon *has 16 years of experience in mobile telecoms, and has held a wide range of roles; all with a common focus on the consumer benefits of the introduction of new communication technologies. Prior to Sybase 365, Mallon held a number of positions at LogicaCMG and Sema Group Telecoms, including product management and business development. Mallon also worked with the teams responsible for world's most successful text messaging service and with the introduction of multi-media messaging to Europe.*

Celent
Celent is a research and consulting firm focused on the application of information technology in the global financial services industry. The firm has two basic offerings: Research provides members with continuous knowledge and advice, and consulting works with clients on specific strategy issues.
Visit celent.com

Commercial Bank of Qatar
Commercial Bank of Qatar has more than 30 years of experience in the region and excels in providing comprehensive corporate, retail, Islamic and investment services, as well as owning and operating Diners Club franchises. The bank offers easily accessible banking channels through a network of 32 branches, of which eight are dedicated to Islamic banking services. Strategic partnerships with banks in Oman and the UAE ensure that cross-border banking is seamless for corporate customers.
Visit cbq.com.qa

Crone Consulting LLC
Crone Consulting LLC specializes in mobile self-service and payments optimization strategies that reduce costs and increase loyalty and sales. Located in San Carlos, California, the company has done an exhaustive review of more than 100 companies both domestic and abroad, and detailed due diligence many of the largest investments, mergers and acquisitions in the mobile commerce space. The firm's clients include financial institutions, retailers, wireless carriers, processors, and technology start-ups.
Visit croneconsulting.com

Eagle Eye Solutions
Eagle Eye Solutions was established in 2003 to take advantage of the new commercial opportunities presented by the saturation of mobile telephones both in the UK and globally. Working with the likes of IBM and MasterCard, Eagle Eye Solutions skill in designing, developing and implementing mobile based, retail marketing solutions for both B2B and B2C audiences has helped it to become one of the leading suppliers of in the field of mobile vouchers technology.
Visit eagleeyesolutions.co.uk

Edgar, Dunn & Company (EDC)
Edgar, Dunn & Company is a global strategy consulting firm specializing in payments and financial services. Founded in 1978, the firm is widely regarded as trusted advisors in the payments industry, providing a full range of strategy consulting services, expertise and market insight through in-depth industry and consumer benchmarking. Visit edgardunn.com

Finaccess Private Limited
Finaccess is a startup company founded with a mission to eradicate the limitations that have hindered the growth and the true potential of our clients. We believe that access to financial services should be easy, convenient and affordable. Henceforth the company is committed to provide inexpensive solutions to our clients to address the lack of infrastructure that supports interoperability and a ubiquity access to finance at a broader spectrum.
Visit: linkedin.com/company/finaccess-pvt.-ltd

FirstCaribbean International Bank
FirstCaribbean International Bank is the largest, regionally-listed bank in the English- and Dutch-speaking Caribbean, serving over 500,000 accounts in 17 markets through 3,400 staff across 100 branches and offices. The bank offers a full range of market-leading financial services in Corporate Banking, Investment Banking, Treasury Sales and Trading, Retail Banking, Wealth Management, and Credit Cards.
Visit firstcaribbeanbank.com

GSM Association
The GSMA represents the interests of the worldwide mobile communications industry. Spanning 219 countries, the GSMA unites nearly 800 of the world's mobile operators and more than 200 companies in the broader mobile ecosystem. GSMA's Mobile Money for the Unbanked program was created to accelerate the availability of mobile money services to the unbanked and those living on less than US$2 per day. Visit gsmworld.com

IBM
IBM strives to lead in the invention, development and manufacture of the industry's most advanced information technologies, including computer systems, software, storage systems and microelectronics. The company translates these advanced technologies into value for its customers through professional solutions, services and consulting businesses worldwide.
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Informa Telecoms & Media
Informa Telecoms & Media delivers strategic insight founded on global market data and primary research. The firm works in partnership with its clients, informing their decision-making with practical services supported by analysts. Visit informatm.com

Javelin Strategy and Research
Javelin Strategy and Research provides quantitative research focused on financial services topics. Javelin conducts in-depth primary research studies to pinpoint dynamic risks and delivers findings based on a rigorous methodology that encompasses multiple, statistically-sound research methods. Our analysts deliver insight into marketing and competitive intelligence, return on investment opportunities, and expansion strategies based on analysis of both quantitative and qualitative resources. Visit javelinstrategy.com.

Juniper Research
Juniper Research provides research and analytical services to the global high-tech communications sector, providing consultancy, analyst reports and industry commentary. Visit juniperresearch.com

MobiKash/Mobicom Africa Ltd.
MobiKash is sponsored by Mobicom Africa Ltd., a holding company with headquarters in Nairobi, Kenya, and is backed by a consortium of Kenyan financial and business professionals. Mobicom Ltd. is focused on marketing, distributing and selling mobile telecom and technology products and solutions and represents international companies with emerging technologies in different parts of the world.
Visit mobikash.com

Mobile Entertainment Forum (MEF)
MEF is the global trade body of the mobilemedia industry. It represents companies throughout the mobile entertainment value chain and works on behalf of its membership to facilitate industry growth, shape regulation and deliver competitive advantage to its members. With headquarters in London and regional chapters covering Asia, EMEA, LATAM and North America, MEF has the global reach, vibrant local representation and strong leadership to drive market change.
Visit m-e-f.org or m-e-f.blogspot.com

Mobile Marketing Association (MMA)
The Mobile Marketing Association is a non-profit trade association; its 700 member companies include agencies, advertisers, handheld device manufacturers, wireless operators and service providers, retailers, software and services providers, and other companies focused on the potential of marketing through the mobile channel.
Visit mmaglobal.com

Mopet CZ
Mopet CZ is a newly established joint venture—the result of shareholder cooperation to build an open, standardized platform for mobile payments, transactions and mobile financial services. With direct access to more than 50 percent of the banking population and 100 percent of mobile users through its shareholders, the company has strong ambitions to become the national mobile payment services provider.

mPay Connect
Headquartered in San Francisco, California, with affiliates worldwide, mPay Connect provides strategic, product planning and business development consulting services to clients interested in providing mobile payments services to their customers. mPay Connect seeks to bridge the gap between efforts in emerging and developed markets and banked and unbanked consumers by connecting ideas, businesses and people globally to drive mobile payments efforts forward. Visit mpayconnect.com

Roshan
Roshan is Afghanistan's leading telecommunications provider, with coverage in more than 230 cities and towns and approximately 4.4 million active subscribers. Since its inception seven years ago, Roshan has invested more than $450 million in Afghanistan and is the country's single largest investor and taxpayer. Major shareholders include The Aga Khan Fund for Economic Development, Monaco Telecom International (MTI) and TeliaSonera, which help Roshan bring international expertise to Afghanistan. Visit roshan.af

Sybase 365
Sybase 365, a subsidiary of Sybase, Inc., (an SAP company; NYSE: SAP), is the global leader in enabling mobile information services for mobile operators, financial institutions and enterprises. Provide customers with the widest offering in SMS, MMS, GRX, IPX interoperability, end-to-end mobile commerce solutions, innovative mCRM, mobile marketing and content delivery services. Sybase 365 processes more than 1.5 billion messages per day, reaching 900 operators and 4.3 billion subscribers around the world.
Visit: sybase.com/365. Read our blogs at http://blogs.sybase.com

Telefónica
Telefónica is one of the world's largest telecommunications operators by market capitalisation. Its activities are centered mainly on the fixed and mobile telephony businesses, while its broadband business is the key growth driver underpinning both. It operates in 25 countries and has a global customer base of 260 million. Telefónica is a 100 percent private sector company with its shares listed in Madrid and other stock exchanges and more than 1.5 million individual shareholders.
Visit telefonica.com

Telekom Austria Group
Telekom Austria Group is Austria's largest telecommunications provider and is positioned in seven other countries: with Mobiltel (Bulgaria), velcom (Belarus), Vipnet (Croatia), Si.mobil (Slovenia), Vip mobile (Republic of Serbia), Vip operator (Republic of Macedonia) and mobilkom liechtenstein (Liechtenstein). Telekom Austria Group services 2.3 million fixed net lines in Austria and 19 million mobile subscribers in 8 countries. The Group had revenues of EUR 4.8 billion at year-end 2009 and is listed on the Vienna Stock Exchange.
Visit telekomaustria.com

Western Union
For more than 150 years, from its beginnings as a telegram business to today, as an innovator in financial services, Western Union has been an industry leader in global money transfer, offering money order, money transfer, payment and prepaid services. In addition, the company has committed to enriching the lives of global citizens by expanding economic opportunity through the Western Union Our World and Our Family programs.
Visit westernunion.com

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FOR FINANCIAL INSTITUTIONS, MOBILE OPERATORS + ENTERPRISES

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