One world, one love, one banking device?

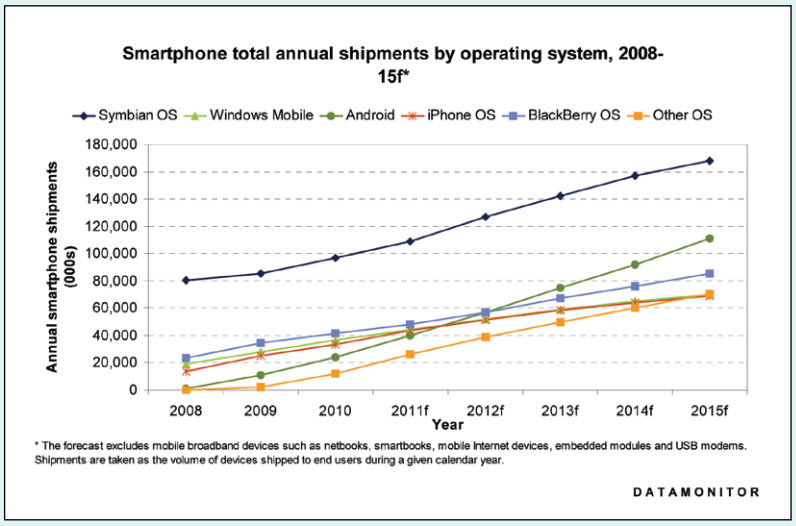
Neil Ainger investigates how the mobile phone is taking over the delivery of financial services from customer-facing retail bank applications, to payments, including contactless ones, to services for the 'unbanked', remittances and corporate banking end uses, highlighting the opportunities, and the integration and standardisation challenges that still remain in the way of this transformative technology

The mobile phone is ubiquitous these days and as such it has been a key focus for retail and corporate banks looking for new customers, new channels to market and value-added revenue streams for a number of years. It can be used to access and manage retail bank accounts, to enable corporate treasurers to quickly authorise cash or trade finance transactions while they're on the move, or to attract the so-called 'unbanked' in developing countries with mobile money transfer services and remittances, bringing more people into the orbit of financial services as has happened in Africa and elsewhere. The remote mobile payment is also a potential cheque replacement technology and is presently being examined as such in the UK where cheques are due to be phased out in 2018. "It is one option we're currently examining," confirms Paul Smee, chief executive of the Payments Council. Indeed, the council established a working group at the end of last year, consisting of representatives from most of the UK's retail banks, to look at Peer-to-Peer (P2P) payments in m-banking and the interoperability issues surrounding it.

"The mobile has proven itself as a communication device – it's immediate and convenient and has numerous benefits that mean banks can create new services off the back of it," says Dag-Inge Flatraaker, chair of the European Payments Council m-channel working group and general manager of payment system strategy at DnB Nor bank. The fact that there are almost five billion phones globally proves his point.

His enthusiasm for mobile technology is shared by Ron van Wezel, head of emerging payment streams at Deutsche Bank and chair of the Mobey Forum, a cross-industry group consisting of banks, handset manufacturers and network operators, who are dedicated to developing mobile financial services. "I think this will be the next wave," he says. "The mobile channel is very very exciting at the moment."

According to Doaud Fakhri, a retail banking analyst at the Datamonitor consultancy, the mobile channel could be the main channel to market for a number of different financial services in future years. He backs this assertion up by citing the firm's latest *Current State of Online Banking* report, which shows that smartphones are popularising mobile banking and that the total number of shipments of these functionally rich devices, which can connect to existing online platforms or support standalone apps, will easily exceed half a billion by 2015 (and the growth curve could yet pick up). As an aside, Datamonitor's figures also show Android fast catching up the iPhone, Blackberry and Symbian/Windows Mobile operating systems in consumer popularity. The latter two OSs of course recently announced a link-up after Nokia effectively conceded that its existing systems and planned MeeGo operating system were not up to competing against its rivals and decided to use Microsoft's OS instead, obviously in fear of losing its previously dominant position as the smartphone market develops (*see page 26*).



Source: Datamonitor – Nokia has since agreed to use the Microsoft OS

Accenture studied 10 banks involved in mobile financial services from across all regions of the world last year and produced a blind report called *Mobile Banking Case Studies* to highlight best practice. When banks enable their customers to use a mobile device to check balances, transfer money, pay bills, apply for credit or use personal finance management apps, they can achieve large returns on investment – in the case of a middle eastern FI a 300% RoI was obtained by educating its two million customers how to use new services to pay bills online via the mobile and so forth. A European bank whose customers can check balances, initiate transfers and trade stock achieved a 60% growth in mobile banking consumers, while one in Asia got a return on investment of 230% by moving to interactive online services, away from text messages. "All this proves that done properly the mobile can be a revenue stream, not just a cost reduction exercise or simply another channel to market," says Michael Eagleton, global lead for mobile money at Accenture. It can pay its own way.

As Justine Haworth, head of digital solutions at First Direct, says the important thing to remember is that "the mobile is becoming ever more important as new developments allow increasing numbers of different transactions to be made. The next generation will look to run their lives through mobile technology and this cannot be ignored." She also points out that, statistically you're much more likely to notice that your mobile phone is lost than when your wallet goes missing so it can help security too.

For Mark Crichton, a technology manager at security vendor RSA, this is a view he agrees with but the chief benefit to him of the mobile as a security device is that it can be an authentication tool. "It can be used to confirm or block suspect transactions with customers before they go through, with two factor authentication tests and perhaps location-specific questions, employed to identify the mobile user as the customer."

Other consultancies see growth in the mobile channel as well, and not just in the retail mobile banking sector either. IDC's Rachel Hunt, EMEA director of banking research, thinks the corporate banking space and trade finance solutions could present the best growth prospects citing her firm's *Mobile Payment Challenge* white paper, produced last year in association with Deutsche Bank (who use Luup for their mobile banking apps), which found that "real opportunities exist for new mobile payment services, but that surprisingly those most likely to generate value-add [for banks] are in the B2B sectors, rather than P2P or B2C".

Corporate banking and trade finance

The potential of the mobile phone to bring revenue into corporate banks is perhaps unrivalled compared to other end uses. VocaLink's *Immediate Mobile Payments* report for instance, unveiled at Sibos 2010, surveyed 2,000 British adults, including 301 self-employed or SME business owners, and 73% of them thought that the idea of a speedy mobile-initiated payment was valuable. Amazingly, 11% said they'd pay £1 per transaction (these seem to have been potential retail bank customers though), while more sensibly 46% said they'd pay £1 per month in a subscription.

"We've been rolling out mobile banking for corporates in Asia and it has been very successful there," says Deutsche Bank & the Mobey Forum's van Wezel. "Solutions at the moment generally consist of apps that allow corporate treasurers to authorise cash and trade deals and check their account statements while they're on the move. Other features are being added to the suite however, such as full cash management capabilities, as we aim for a comprehensive solution as rich as our existing internet channel solutions."

Standard Chartered is targeting corporates for growth in the mobile channel as well. It has launched two iPhone apps, downloadable via the Apple App store under the bank's Straight2Bank suite. The Mobile Authorisation product also gives corporate treasurers improved control over their working capital when they are away from their desks allowing them to OK cash and trade transactions. The Trade Enquiry Service delivers real-time information on Letters of Credit and import documents to banks using Standard Chartered's LoC Reissuance programme. "The iPhone is changing the way our clients access information and services," says Neal Livingstone, global head of client access at Standard Chartered's transaction banking unit.

A lot of vendors are offering corporate white labelled services to banks or direct solutions for end user clients. Fundtech is one such and debuted its Mobile AccessPlus offering late last year, which is an extension of its Service Orientated Architecture platform, usable across all the major mobile operating systems. It consolidates all of the vendor's transaction banking products into one set of SOA services and is intended "to help

'Joe the CFO' do his job", says George Ravich, head of marketing at Fundtech. Three specific mobile modules are currently available: Global CashPlus Mobile, which is a cash and liquidity management system; Accountis EIP Mobile, which is an electronic invoice presentation tool; and Bacsactive-IP Mobile, which is for use with UK Bacs payments. A major UK bank, believed to be NatWest, was the first client for MobileAccessPlus, deploying the Bacsactive-IP module.

Mobile banking and remote payments

In the retail banking environment mobile devices have been in use for many years now and attracted millions and millions of customers to use services such as checking your account balance, topping up your pay-as-you-go mobile, receiving mobile alerts to warn of an impending overdraft, or to make remote payments to others. Although often P2P payments can only be made to others inside the same bank or by using the mobile to access an internet banking website and ultimately the 'old' payment infrastructures such as the FPS in the UK or Swift internationally. Using a mobile phone number itself to initiate a payment is still rare in most countries, although ANZ Bank did launch a goMoney iPhone app down under that could do this domestically.

Datamonitor's Fakhri calls many of the existing mobile banking and payments options available to retail banking customers "read-only", by which he means they are quite basic, relying on accessing internet banking websites or SMS text messages. This is particularly so in the UK, where Lloyds Banking Group successfully launched many of the 'vanilla' services mentioned above, as did RBS and many of the other large High St banks, typically relying on Monitise's white labelled front-end software platform. As Richard Johnson, group strategy director of Monitise, points out though: "The UK has a more centralised market than some others – illustrated by the FPS, Bacs and so forth – which can mean a slower pace of development but once a move is made there is good scale and large uptake for new technologies [thanks to the history of cooperation]." The UK can, therefore, catch up quickly.

"In the US it's very different," he adds, "as there are so many smaller dispersed banks that rely on a 'processor' partner, such as FIS, who we have a joint venture with. These large outsourcing specialists provide services and reach to lots of smaller banks and allow a faster pace of mobile technology app delivery and rollouts to tier 3 players [without however the same overall scale]."

Other North American players include ClairMail which has its mobile banking and payments solution with eight of the top 12 banks in the region and reports an explosive 253% growth in the number of transactions last year. "That's more than 170 million payments in total," says Donald MacCormick, vice president of products.

Each country and region is at a different stage of development, with the Far East in particular generally considered to be in advance of most other areas, while Europe and North America struggle with siloed infrastructures that can't just be skipped over and which consumers sometimes have to be prised away from [the cheque in the UK for instance won't be easily replaced by mobile P2P payments, despite the laudable intentions of the Payments Council].

"It's true Europe and the US have higher mobile penetration rates but also legacy issues, so while mobile payments will take off in these markets it'll be slower than in Asia or Latin America," says Deutsche Bank & the Mobey Forum's van Wezel. "Emerging markets can leapfrog the 'old world' and its investments of the last 50 years."

Banks have made a success of some retail mobile banking services in Europe (for instance, see First Direct's iPhone app on *page 28*). La Caixa too in Spain has built a loyal fan base. "We began our services way back in 1998 and now provide SMS alerts, mobile applications for the iPad and Windows Phone 7, among many other devices, plus a mobile trade finance web portal," explains David Urbano Martin, director of mobile at the bank. "La Caixa is the leader in Spain in mobile banking, with more than 600,000 customers using it to do a lot of different transactions such as check accounts or make transfers."

Mobile banking can deliver so much more though and hopefully it will in the coming years. Location-specific tools, such as where to find your nearest ATM for example, can either be sold or given away free to enhance customer service – ING in the Netherlands have shown this can work. Mobiles can also be used to retrieve emergency cash from using a code texted to your phone and can link into the world of e-commerce and mobile wallets in the future. These things are possible but it takes time, of course, and requires these new services to be integrated into existing core banking operations.

Vendors are trying to help with off-the-shelf mobile banking software. Temenos for example has added a module to its T24 core banking software platform, making it easy to launch mobile banking and remote payment offerings if you stay in its proprietary environment – although Phil Sorrell, mobile business development director at Temenos maintains the mobile module is agnostic and can work with other core banking platforms too. "The real challenge these days," he says, "is to integrate via SOA hubs, enabling multiple customer-facing channels and connecting to other systems like card schemes and merchant systems so that the e-commerce world opens up."

There are other obstacles to the widespread adoption of the mobile in other bank sectors, such as the need to integrate it into the financial supply chain for corporates and avoid 'communities' of banks, vendors and others who lock-in customers to restrictive trade finance networks. The same

fear stalks the mobile contactless payments world – another string to the bow of the mobile device – where a service that only has certain retailers down a High Street participating in a scheme isn't likely to find favour with shoppers.

Standardisation

Standardisation and interoperability work is necessary if cross-border transactions are to be made simpler, corporate accounts to be 'passportable' and a secure environment provided for all. Co-operative work also needs to be done to allow mobile contactless customers and bank application users to switch handsets and indeed banks or remittance providers if they so wish. Ensuring a common architecture for all that isn't dominated by one particular community is the aim, leaving room for a competitive space to develop. As van Wezel rightly says, "the first principle is to bring working solutions to market, then there will come a point later on where we will need interoperability. Mobile payments [whether contactless or remote] are still emerging so let's just get solutions out there and see what works and what doesn't. When the right models have been established we can get our arms around standardisation."

It's a viewpoint which Flatraaker shares, saying that he doesn't think we'll see a collective big leap forward on mobile payments for a few years yet. "Individual communities of banks, card schemes, network operators and others are already moving ahead separately, but I believe mobile payments will only really take off once standards are in place and interoperability and critical mass has been achieved."

In an effort to get to this place the EPC is cooperating with the GSM Association, among others, which unites nearly 800 of the world's mobile operators and equipment and content providers on mobile contactless payments (MCP). Together they have developed interoperable contactless m-payment requirements and standards so that banks can leverage the MNO-controlled UICC/SIM infrastructure to store and manage their banking payments applications such as debit and credit cards on mobile phones, and also created a common architecture that boosts relationships between issuing banks, mobile network operators and trusted service managers. The joint paper called *Mobile Contactless Payments Service Management Roles – Requirements and Specifications* was produced last October and it stipulates what role each body is to play in the value chain (see www.europeanpaymentscouncil.eu for more). Secondly, EPC is working on a remote payments initiative and produced a report last October called *White Paper on Mobile Payments*. This has since gone to consultation and a second edition is due out in Q2 2011. Through this work the EPC will enable banks to be able to efficiently launch the initiation of SEPA payments through the mobile channel, complying with the Single Euro Payments Area rules. "The ecosystem is still evolving, not only via national initiatives but also in a SEPA and global context. We will make sure that interoperability is achieved so that we, in the end, also can have an efficient

> "In time m-banking and m-payments, including contactless ones, will converge. Customers don't want separate mobile banking, loyalty schemes, payments, retailer or e-commerce apps."
>
> **Richard Johnson, Monitise**

HSBC First Direct launches iPhone app for mobile banking

Online and 24-hour telephone bank, First Direct, introduced a transactional 'banking on the move' application on 13 January for Apple's iPhone and iPod Touch. Available free-of-charge on the Apple App store, it allows First Direct customers in the UK to check balances, view the last 20 account transactions, move money around within the bank and make payments to an existing person or organisation already using internet banking. The latter payment functionally is possible because the front-end app links into the existing online platform and the established transfer operations therein. "The application consists of top and bottom navigation, plus tab bars," explains Justine Haworth, head of digital solutions at First Direct. "The content in between these bars is delivered via optimised web pages, making this a hybrid app."

First Direct has a history of innovation in the UK retail banking industry, having taken its first call in 1989, opened its internet bank in 1998 and SMS mobile alert services in 1999, so it was naturally keen to appeal to Apple's typically rich users. "Since launch the transactional app has been downloaded 110,000 times, which covers nearly all our iPhone users, so we're delighted with the response we've had," says Haworth. "Our plan is to now make the mobile service available on other smartphone devices and operating systems, including Google's Android."

The chief executive of First Direct, Matt Colebrook, believes that the iPhone app is a huge step forward, but confirms it's just the beginning of the bank's ambitions for mobile banking. "We chose to go with the iPhone first because that's where our customers are," he explains. "Over the last 12 months, the iPhone has grown to become the sixth largest source of visitors to our website banking facility."

Some US banks have already tapped into the country's more developed iPhone app market (the Bank of America was the first to launch in July 2008), but First Direct wants to try and innovate in the UK and says it has ambitious plans for the next generation of mobile banking applications already afoot, which include gathering feedback on the new launch from its online banking customers. RBS' NatWest is the only other UK bank to have introduced a similar smartphone app up until now.

interoperable model for Europe. While mobile banking is mostly in the competitive space and will not depend too much on common rules and standards, this is not the case for mobile payments, which require a strong cooperation model both between banks and in some instances also between banks and other industries to be efficiently launched to the public," says Flatraaker.

The market will help too. "In time m-banking and m-payments, including contactless ones, will converge," says Monitise's Johnson. "Customers don't want separate mobile banking, loyalty schemes, payments, retailer or e-commerce apps. Eventually it all needs to be connected up." That's why the firm has launched the mobile money network in the UK with Charles Dunstone, the well-known founder of Carphone Warehouse, to provide a one-stop shop for mobile products, services and marketing to encourage uptake. And it is partnering with Vivotech in the US to gain access to its Over The Air provisioning software that enables NFC payments to be made, allied to the firm's mobile money platform. The combined service is on offer to banks across the US.

Monitise also has a joint venture with Visa that's just been replicated in Europe whereby its front-end platform has been licensed to give the card scheme's 4,000 member banks – and other non-bank users – access to its mobile money management solution. An agreement to develop further services jointly has also been signed. In India a deal with Standard Chartered means the vendor is providing a mobile banking payment and commerce service, so that cinema/airline tickets can be brought or bills paid, for retail banking customers. In Nigeria Monitise has received a provisional banking license from the central bank to introduce payments by mobile phone across the country, effectively providing a FS service to the 'unbanked', as M-Pesa has done in Kenya (*see page 30*). These types of partnerships are increasingly common as the mobile channel develops around the world but wherever firms are involved in these singular networks, some form of interoperability will need to come to them in the end to ensure competition or other schemes have to be licensed.

Mobile contactless payments

Mobile contactless payments are being encouraged by card schemes, banks, network operators and others to try and deliver the ability to consumers to simply tap a mobile against a reader to authorise a low-value payment, as you would with a contactless card or an Oyster transportation card in London. Indeed, the capital has already declared that 2012 will be the first 'contactless' Olympic games with ticketing, travel and purchases taking to the air. Allied to a loyalty scheme, the valuable functionally rich data obtained can be used to cross or up-sell other financial services, or indeed non-financial retail or bill payment services, which is attracting the interest of banks and retailers alike.

Numerous technologies are currently available that facilitate contactless payments on a mobile,

Contactless m-payments take over Sitges

In a groundbreaking pilot, the biggest in Europe, La Caixa bank, Visa and Telefonica ran a large scale six-month long contactless m-payment scheme from May to November last year, involving 500 retailers and 1,500 bank customers in Sitges, Spain. The trial, since extended after it proved popular with participants, covers the vast majority of shops in the town, including pharmacies, clothes and shoe shops, stallholders in the central market, restaurants, bars, supermarkets and so forth, and allows purchases of less than €20 to be paid for simply by taping a Samsung phone against a Visa payWave reader. Transactions above €20 require a PIN.

The project uses Near Field Communication short-wave wireless communication technology between the phone and the reader terminal. A Samsung Star Touch phone was deployed with a secure mobile SIM chip inside, which effectively acts as a Visa card.

The average age of the 1,500 La Caixa bank customers taking part in the ongoing scheme is 48, with an equal split of men, women, and professions, to ensure that not just young tech-savvy participants took part. A detailed feedback survey has showed that 70% of customers rate the service at 8 out of 10 in terms of their satisfaction with it. Those that were unhappy were mainly displeased that the trial didn't cover all the shops in Sitges or they didn't like the particular brand of phone. Among the participants, 66% said they'd definitely use contactless m-payment technology in the future, with 25% saying they probably would. Of the purchases so far made, 60% have been for less than €20, with an average spend in this 'tap and go' category of €10, perhaps suggesting that there is some scope here for the technology to act as a cash replacement mechanism, or at least a complimentary low-value payment form. 40% of purchases were above the €20 limit necessitating customers to enter their PIN. The average spend in this category was €60. No instances of fraud have, so far, been reported. Ultimately, liability rests with the bank but the security features deployed, such as the PIN, allied to the usual bank and card scheme protocols that the payments tap into, are working very effectively. 85% of users said they found the security protocols to be reliable.

According to David Urbano Martin, director of mobile at La Caixa, "consistent usage of the phones has been achieved; the novelty hasn't worn off and customers like the functionality," he said. More than 90% have used the phones to make payments and 80% of retailers have processed a transaction. The feedback survey, completed at the end of last year, also shows the potential of contactless m-payments: customers increased by 30% their number of electronic transactions, while merchants experienced a 23% sales increase on average.

"There are also a number of value-adds in this offering, ranging from mini-statements, to budgeting aids and promotional opportunities," points out Sandra Alzetta, senior vice president of Visa Europe innovation, new product and channel development. "This technology isn't mass market yet but the encouraging feedback from Sitges means that it soon will be ...perhaps by 2015 or earlier in terms of a full commercial rollout."

David Urbano Martin, director of mobile at La Caixa will be speaking about the Sitges project and his bank's mobile operations at the *Mobile Technology in FS Summit*, organised by *Banking Technology* on 22 June at the Haberdashers Hall in the City of London.

www.bankingtech.com/mobilesummit

including mobile stickers (those bar code like additions you may have seen on the back of a phone), to microSD cards as deployed by Akbank in Turkey last year with Visa and DeviceFidelity as project partners.

The end game though is generally considered to be the development of a standardised secure SIM chip in the phone, conforming to agreed standards that are currently being worked out by cross-border industry bodies like the GSMA and EPC. Allying this secure chip to a Near Field Communication-enabled handset and a contactless reader that is similarly equipped to allow the transfer of short wave wireless data communication is what enables payments to be made. NFC is the most talked about enabling technology for this at the moment. Persistent rumours suggest that the next iPhone 5 will be so equipped – and with a secure chip too. Other smartphones should be getting it over the next few months and years. At the moment it is only really the Samsung Star Touch phone (excepting add on bridging devices) that has the total package (*see panel, page 29*), which doesn't give consumers much handset choice but this will change.

The UK Cards Association is eagerly awaiting more NFC-enabled phones to enter the market and is expecting issuers to work with network operators in developing the contactless options, as has already happened with the Barclaycard and Everything Everywhere announcement of a UK-wide MCP rollout *(see news, page 6*). The network operator, which includes Orange and T-Mobile, will launch the UK's first full scale commercial contactless mobile phone payments solution this summer. The partners are working with as yet unnamed handset manufacturers to allow Britons to use NFC-enabled devices to make low-value m-payments of under £15 for papers, sandwiches, coffee and other similar goods at the Point of Sale of selected retailers – including Eat and the Co-op – by Q2 2011. All that is required is for customers to wave their mobile phones against contactless terminals equipped with the Near Field Communication short-range high frequency wireless technology that enables data to be exchanged over a 10cm distance. MasterCard will deliver the payments capability for transactions, while French vendor Gemalto is responsible for Barclays' Trusted Service Management operation. The launch apes a similar scheme underway in Nice, southern France, Orange's 'home' territory where a huge NFC trial involving the transportation system, shops and thousands of participants is currently happening, with Credit Agricole recently becoming the third French bank to join the large scale initiative (Gemalto will again provide TSM).

One example of a bridging technology that is enabling contactless mobile payments to be made on iPhones right now, before the full scale rollout of internationally agreed secure chips and NFC-enabled handsets, is the iCarte accessory from Canada's Wireless Dynamic. By partnering with Visa Europe this contactless technology can already be accessed. iPhone users simply attach the iCarte accessory, available through their bank or mobile operator, to their iPhone and download a companion Visa mobile application; the iCarte app from Apple's App Store. The accessory contains an antenna and what is described as an embedded secure element, which is essentially where the Visa 'card' is stored. This card works in turn with the downloaded app to enable payments on the iPhone. Once the Visa mobile card is activated consumers can start making purchases by launching the app and touching their iPhone on any contactless-enabled Point of Sale reader across Europe. A PIN may periodically be requested for security purposes or, at a later date, this function could be added to allow higher value payments above €20.

Visa Europe's first deployment of this technology was launched in January in collaboration with Yapi Kredi Bank and Turkcell, Turkey's largest mobile operator. Yapi Kredi bank customers, equipped with a Turkcell plan and the Visa/Wireless Dynamic iCarte accessory and app, can now make purchases directly from their iPhone at more than 40,000 contactless terminals across Turkey – even though the iPhone isn't formally yet NFC/secure chip ready. The product is also being used on a smaller scale in the UK by Visa staff in London, with partners FIS, a provider of prepaid platforms and processing, and Coventry Building Society assisting. Further commercialisation efforts are

Mobile money makes a Splash for the 'unbanked' and remittance users

Splash Mobile Money enables users in Sierra Leone to send and receive money, make payments and get and pay micro-loans using the mobile phone. With only 9% of the population in Sierra Leone having access to traditional banking services, there is an over-reliance on cash-based transactions but the threat of theft has been alleviated by delivering a stable and cheap mobile service to the unbanked.

Customers can register at more than 150 agents across the country to access mobile money transfer services and remittances. Electronic funds, called 'Splash cash', can be obtained from friends, family or employers and 'cashed out' or used at participating retail agent locations. Alternatively it can be converted into prepaid airtime, to pay bills or handle micro-loans. It works across all of the mobile network operators, including Africell, Comium and Airtel, without discrimination. Since its commercial launch in February 2010 Splash has grown from 10,000 to 50,000 users, making it the largest FI in Sierra Leone. It operates on MoreMagic Solutions' mobile commerce and financial service technology platform and is looking forward to spreading it wings domestically and perhaps across Africa, as similar schemes such as M-Pesa have done, emanating out from Kenya where 50% of adults now use the service, to Tanzania, Afghanistan and India. The Mobile Money for the Unbanked (MMU) programme funded by the Gates' Foundation and the GSMA Development Fund estimates that there are currently about 80 similar mobile money transfer and remittance schemes around the world, with more in the planning stage.

As Diarmuid Mallon, marketing manager at Sybase 365, a SAP company offering various mobile systems, notes though: "In the developing world mobile payment schemes are typically led by mobile operators and local utility companies. In Africa, for example, our remote payment MobiKash scheme means villagers do not have to walk miles and queue for hours to pay electricity bills."

expected throughout Europe. The benefit of a bridging technology such as this – or indeed one using stickers – is that it means more mobile handsets can be used by consumers, while we wait for a wider rollout of NFC-enabled phones. Indeed, in the case of the iCarte it means mobile operators don't need to distribute NFC SIMs containing the secure element – equally though it can be seen as cutting out the mobile network operator from the transaction and distribution model.

According to Mary Carol Harris, vice president of mobile development at Visa Europe, it is still very much early days in the development of contactless mobile payments. "It will take some time before mobile devices transform FS," she says, "but we do think that first contactless cards and then mobile devices will change the way we handle our finances on a day-to-day basis." The acceptance infrastructure (i.e. readers) also needs to be rolled out.

The legacy position of cards in Europe, North America and other developed markets means that contactless cards may well be around for a while but in developing countries and in the Far East a lot of this technology can be skipped over and consumers will move straight to the mobile, as has already been seen with mobile money transfer and remittance schemes in Africa aimed at the so-called 'unbanked' who had never previously been part of the financial services world. There contactless cards – and indeed perhaps even bank branches – won't get a look-in because the mobile phone already has such penetration that it is *the* device upon which to deliver FS.

Colin Swain, head of mobile at Barclaycard, agrees that regional differences are an important element in the debate around uptake and consumer technology acceptance. "The maturity of mobile payments varies greatly worldwide; with banks, mobile operators and other institutions meeting the needs of their customers in very different ways," he says. "Whether it's a money transfer scheme, such as M-Pesa in Kenya, or the success of mobile NFC in Japan and South Korea through NTT DoCoMo's mobile wallet and SK Telecom's m-finance."

"We are now seeing advances in the older established European and North American markets around mobile payments and NFC specifically, and I expect these to be major regional growth areas over the coming years," adds Swain. He also cites a recent report by Juniper Research that stated 1 in 6 mobile phones will be NFC enabled by 2014, equating to some 950 million subscribers globally, to illustrate expected growth. Juniper also estimated that by 2014, NFC mobile spend in Europe alone would exceed £20 billion.

Disintermediation

Some fear that traditional banks could lose valuable business and future growth in certain sections of the mobile channel. In the retail app and e-commerce world, for instance, including contactless, the multitude of payment processors, retailers, network operators and bill presentation and payment companies who are keen to get involved may end up getting the high value front-end bit of the business, where rich data and profits are available, while banks are left with the commoditised bit at the end, running over old banking infrastructures.

We've seen this happen before with PayPal when a sharp front-ended service came along that was too quick for slower paced banks and grabbed a new market all for itself, running on top of existing infrastructures. A killer app, in the form of eBay, was still needed though, so banks do have a chance in this market but will have to fight hard for profits. The same is true in the remittances arena. That is why the corporate banking mobile channel may well end up being the most lucrative area for mobile devices in financial services; because banks are vital in the trade finance space and provide the reach, experience and stability that corporates need.

"Disintermediation is still a valid fear and banks could lose out on all that rich customer relationship data if they're not careful," says Monitise's Johnson. "That's why banks need to leverage their brand strength and experience of keeping money safe to ensure they remain central players. I speak to banks all the time and tell them to be on the front foot. Be proactive."

The threat is real. O2 Money, for example, launched in 2009 and now has 800,000 UK customers and a growing FS portfolio that extends to prepay cards and insurance products for handsets, holidays and the like. It has also recently announced plans to unveil a contactless mobile payments scheme later on this year in the UK, although it won't reveal details yet because it says it's presently concentrating on releasing a mobile wallet app with a suite of e-commerce payment options, including P2P. "We will also be applying for an e-money license under the EU's new electronic money directive, which is due to come into force on 30 April 2011," says James Le Brocq, head of O2's financial services division and an ex-retail banker who spent 26 years at Alliance+Leicester and Barclaycard. This will allow O2 Money to hold cash balances for customers. Parent company, Telefonica, has also established a vertical FS line of business to demonstrate its commitment.

Ultimately though, as Barclaycard's Swain says, banks will need to continually evolve to remain successful – just like other industries do. You have to run to stand still sometimes and that may well be the case in certain areas of the mobile channel. Banks bring inherent strengths though – physical and regulatory security, reach and expertise in the handling of money, and they need to use these strengths to ensure a flourishing and central role in the development of what could be the 21st century's key FS device. ***BT***

■ *Mobile World Congress report on page 10.*