MOBILE PAYMENTS MARKET GUIDE 2012
Insights in the worldwide mobile financial services market

'The Paypers Mobile Payments Guide 2012 offers clarity and sound guidance to manoeuver through the complex and crowded mobile payments environment. The SIMalliance, the secure element architects for today's generation, dedicated to supporting the creation, deployment and management of secure mobile services across the globe, welcomes and recommends this comprehensive guide!'

Frédéric Vasnier, Chairman of the Board, SIMalliance

sim alliance

'As the world goes mobile and as a result is driving the emergence of new business models and ways to pay, The Paypers Mobile Payments Guide 2012 offers a very good overview of mobile payments schemes across the world. The Smart Payment Association (SPA), which addresses the challenges of the evolving payment ecosystem, offering leadership and expert guidance, recommends this guide!'

Andreas Strobel, President, Smart Payment Association (SPA)

smart payment
association

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INTRODUCTION

You are reading the first edition of the Mobile Payments Market Guide developed by The Paypers, the industry-leading provider of news and analyses for the global payments community. The Mobile Payments Market Guide 2012 provides an in-depth look at the global mobile financial services ecosystem, combining insight from key stakeholders and top-level industry thought leaders with a comprehensive overview of market players, be they MNOs, banks, technology providers, phone manufacturers or payment processors.

In putting together this guide, we wanted to highlight a state of affairs that should soon gain the status of a truth universally acknowledged – namely, the fact that the use of the mobile phone as a tool for financial transactions has a disruptive effect on both the payments industry per se and the way commerce is done. From a quick and accessible channel for banking on the move to a sophisticated tool for shopping, price comparison and ultimately buying, the saga of the mobile device is an on-going story that unfolds in leaps and bounds within a progressively crowded (and potentially fragmented) ecosystem. This takes place against the backdrop of an extremely dynamic market, where technologies still emerge, new business models are still being trialled and more traditional services providers such as banks coexist with MNOs, handset manufacturers, service providers and major new players such as PayPal or Google. Paradoxically, non-banking organisations seem to be leading the mobile revolution with a wide range of applications that offer multiple new payment options.

At the other end of the spectrum are the merchants and the consumers, two very different yet no less critical categories of players for whom the benefits of the mobile payments paradigm must be spelled out in a totally different language – that of reliability, trust, security, usability and critical mass. If the mobile payments market is to gain any traction at all, it is essential that both merchants and consumers embrace the idea of payments carried out via the mobile device. However, it has taken a long time for the mobile payments business case to work its way to the merchants' point of sales and start building critical mass. It has taken an even longer time for mobile payments to make their way into consumers' wallets, when other established payment instruments such as cash and cards were more readily available.

Given the fact that the world of commerce seemingly willing to embrace mobile technologies, the potential for large-scale adoption of mobile payments is clearly there – a blessing and a curse, given that the playing field keeps getting progressively more crowded.

Within a context where new players, technologies, business models and rivalries emerge every day, the Mobile Payments Market Guide 2012 developed by The Paypers aims to serve a twofold purpose. On the one hand, it aims to provide an arena where voices from all across the industry – regulators, technology companies, banks, payments processors and consumers – can expose their vision, discuss issues such as security, business models and revenue opportunities, and argue the case for what they consider to be the way forward in mobile financial services. On the other hand, the Mobile Guide 2012 aims to be a comprehensive source of information for industry professionals, who gain access to an all-in-one reference material which lists over 280 profiles of companies in the mobile financial services ecosystem and features both thought leadership articles and actual business cases providing information as well as food for thought.

Our partners in putting together the Mobile Payments Market Guide 2012 are powerful industry organizations with global reach: the Mobey Forum, the bank-led association defining a sustainable and prosperous mobile financial services ecosystem; Efma, a not-for-profit association specializing in retail financial marketing with over 3,000 brands in 130 countries as active members; SIMalliance, the non-profit trade association dedicated to supporting the creation, deployment and management of

secure mobile services across the globe; and the Smart Payment Association, which represents around 87% of the smart payment cards market and whose members have delivered more than 798 million smart payment cards in 2010. And Innopay, a leading Dutch consultancy firm specializing in online and mobile payment development.

The Guide has a three-part structure, with Part 1 dedicated to insight from industry stakeholders and associations involved in the global mobile payments ecosystem in. In Part 1 Sirpa Nordlund, executive director of the Mobey Forum, speaks about the roles that banks have to play in the mobile payments ecosystem, both in emerging and developed markets. Patrick Desmarès, General Secretary at Efma, deals with the growth of mobile from a niche proposition to mainstream business. Moreover, Frederic Vasnier, Chairman of the Board at SIMalliance investigates the burgeoning mobile transactions market and highlights the role of the Secure Element in assuring security, enabling interoperability and delivering revenue in mobile payments.

Part 2 of the Mobile Guide is a section dedicated to thought leadership contributions and regional (per continents) initiatives in the field of mobile financial services. It features insight from global provider of internet payment and e-commerce services Adyen as well as a contribution by Shikko Nijlan, Partner at Innopay, an independent management consultancy firm specialized in payments, e-invoicing en e-identification related matters. Also featured is an article by Roger Peverelli and Reggy de Feniks, the authors of international bestseller "Reinventing Financial Services", who share their vision on the future of mobile banking.

Part 2 also includes an exclusive contribution from Afghanistan-based telecommunications provider Roshan, which discusses the impact of the M-Paisa mobile financial service on the people of Afghanistan, as well as a contribution by Simon Hardie, Managing Director at Eurasia Insights, who discusses mobile payments in Turkey. Part 2 also features an article by Lorenzo Gaston, Technical Director from the Smart Payment Association, who takes a look at the opportunities on offer and the steps needed to achieve true mobile payment services harmonization. Finally, Ron Hirson, President & Co-Founder of US online mobile payments company Boku, expands on the opportunity presented by NFC and other mobile payments technologies to enhance the payments experience using the power of your mobile phone

Part 3 of the Mobile Guide 2012 presents in-depth company profiles mapping out over 280 key players in the global mobile money industry.

The Mobile Payments Market Guide 2012 is a great means to stay informed and keep up to date with the latest industry perspectives, trends and developments, a highly useful document that should be kept at hand at all times. Finally, this document has been put together with the utmost care. If you discover that, despite our efforts, it features information that is unclear or erroneous, we very much appreciate your feedback.

Monica Gaza
Senior News Editor, Mobile Payments
The Paypers
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BANKING ON TRUST

Sirpa Nordlund, executive director of Mobey Forum, the bank-led association defining a sustainable and prosperous mobile financial services ecosystem, explores the role banks have to play in the mobile payments ecosystem, both in emerging and developed markets.

2011 saw many high profile announcements in relation to mobile financial services (MFS). Market leaders such as Samsung, Visa, O2, Vodafone and Orange are all beginning to recognise the potential of mobile payments technology and how it could revolutionise the payments landscape.

The MFS ecosystem is a busy place, where traditional banks rub shoulders with mobile network operators (MNOs), handset manufacturers, service providers and some of the biggest names on the web. Industry bodies such as Mobey Forum serve to assist all stakeholders in assessing what their technology options are and how they can work together to develop of a sustainable, secure and scalable ecosystem. Banks have a vital role to play and the future health of the ecosystem depends on them keeping pace with the major new players entering the market such as Google and PayPal. The power and reach of these organisations could, conceivably, see them dominate entirely. Banks must ensure that they do not become marginalised into a 'transactions only' role.

There has been much talk about value added services, which are widely held to be essential to the success of MFS. But industry stakeholders must learn to walk before they can run. Executing transactions is one of the sector's fundamental enablers, so before the market rushes to monetise through the provision of value added services, establishing a sustainable payments infrastructure must be the first priority.

Competition

Of all MFS stakeholders, it is the banks that have the loyalty and trust of end users. This core strength sets them apart from the other players and will carry them forward into the MFS domain. Banks have experience in data security, brand equity and reliability, access to risk management data, own a large existing customer base and have strong customer loyalty. It is clear to see that the banks should have a seat at the MFS table, but they need to act soon.

MNOs and industry giants such as PayPal and Google are already providing keen competition for financial institutions, but in their favour, banks have an existing financial customer base where others do not. A bank's customers are likely to be far more comfortable continuing to pass their transactions through their bank's MFS, rather than dividing their loyalties between their bank, their mobile operator and, say, Google.

The 'new school', however, are undoubtedly well placed. Earlier this year, PayPal announced that it expects to process $7 billion in mobile payments in 2012, almost double the $4 billion recorded in 2011. This demonstrates a seismic shift away from traditional banking, and reflects a growing trust in the PayPal brand which banks must respond to if they are to remain competitive.

Cost of implementation

Of the barriers standing in the way of the banks, the cost of implementation is one of the foremost. Banks and MNOs are hesitant to make the first move and invest heavily in MFS when consumer engagement is not guaranteed. The internet giants are already wading into the space, but can't succeed alone.

In this context, it is important to remember that mobile is not only a payments channel, but also a service and a product in its own right. Regardless of their might, new players in MFS remain dependent on mobile networks and, to a lesser extent, handsets in order to deliver their services to consumers. Nevertheless, their presence should act as a wakeup call for the industry, resulting in a scramble for dominance and market share.

In many ways, the industry is caught in a 'catch 22' situation: key players are waiting for consumer buy-in, but as yet there is little for consumers to buy. Demand will not arrive without market education and product availability.

A leap of faith is needed.

Security

Security is another concern; new payment technologies make stakeholders justifiably nervous. Fortunately for the banks, this is familiar territory. They are well equipped to deal with most security issues as many are either identical, or very similar, to those faced and dealt with routinely in today's marketplace. The task for the industry will therefore be to reassure and educate consumers, convincing them that mobile payment is a secure, viable option that is just as safe as a contact transaction or an online payment.

This education process must be undertaken through industry collaboration. There are a number of points that will help consumers adjust to the idea of secure MFS. Firstly, it is important to consider the average length of time it takes for someone to notice their phone has been stolen compared to their wallet. The European average is 20 minutes to realise a phone is missing versus six hours for a traditional wallet. The rich functionality of mobile devices and smartphones ensures that the handsets are rarely out of sight, let alone mind. This is security on its own. The faster something is reported missing, the quicker it can be deactivated. Today's smartphones have the ability to be disabled remotely and the data stored on them destroyed should the handset go missing or fall into the wrong hands. What's more, the card issuers will still be able to disable the 'virtual card' that is contained within the phone and activated when a mobile payment is made.

There is also the option with a mobile device to apply additional levels of security. There are three further layers of security to consider with the simple addition of personal identification numbers (PINs). The payment application, the NFC on/off control and the phone's standard access control can all be secured with different PINs at the user's request. Arguably, this could make mobile payment functionality

even more secure than a payment made with today's contactless or contact cards.

Revenue

Inevitably, conversations relating to MFS deployment usually come back to the subject of how money can be made. Mobey Forum believes that payment functionality is not enough to drive adoption. Value added services are required in order to stimulate the change needed in consumer behaviour. This refers to coupons, discounts, marketing, ticketing and all manner of new mobile services that will reward mobile wallet users with benefits that are not available elsewhere. This additional functionality will all be tailored towards consumer convenience. Let's take mobile contactless payment – where a consumer using a mobile device equipped with a smartcard waves his/her phone near a reader module to make a payment – as a case in point. When a consumer makes the payment at the point of sale, it will be possible for them to view and redeem loyalty points automatically, apply a previously stored voucher to the transaction, or receive an offer tempting them into repeat business. It is these simple and convenient consumer benefits that will allure consumers away from traditional payment methods toward adoption of the technology.

Further to this, the availability of simple banking services such as transferring money or paying a bill will also work to stimulate consumer interest. This will revolutionise on-the-move money management, delivering further convenience directly into the hands of the consumer.

Markets: emerging vs developed

In developed markets the emphasis must be on speed of transaction, convenience and value, as the vast majority of people have accounts where basic services like direct debits and standing orders already operate to the

satisfaction of the customer.

It is a different proposition when considering emerging financial markets. The main distinction comes from how emerging markets stack up in terms of existing private banking framework. Mobile remote payment has huge potential in markets where this infrastructure is scarce, as it enables two parties to send and receive payments or exchange funds using the mobile channel, irrespective of where they are located. This allows the transfer of funds or payment of a bill with nothing but a mobile handset and the payee's payment reference / phone number. The payment received from any such transaction can then be redeemed as airtime, goods or cash at selected merchants. The size and population density of these markets make them a very attractive proposition for MFS stakeholders.

It is the belief of Mobey Forum that the MFS ecosystem needs to adopt a collaborative model in order to develop a trusted and workable marketplace. Banks and other market players need to come together and develop business models which play to their strengths. Far from competing with new players, banks should look to offer simple and effective banking services in a trusted environment, as they have always done. By fostering strong industry alliances with other key entities in the ecosystem, such as handset manufacturers, MNOs and service providers, banks will be able to become part of a complete, consumer focused solution. The mobile payment revolution is upon us, it now is up to the various stakeholders to keep up.

To find out more about the work of Mobey Forum, please visit **www.mobeyforum.org**

MOBILE MONEY

Patrick Desmarès, Secretary General, Efma

Introduction

In recent years, mobile has grown from a niche proposition to mainstream business. Worldwide smartphone shipments overtook total PC shipments for the first time in Q4 2010, and many users are already actively shifting from PCs to mobile devices even in their homes. Strong growth in demand is expected across the world, with Europe representing the second biggest market. The world of commerce is now embracing mobile technologies and the line between the internet and mobile continues to blur, with social media providing a huge opportunity to connect with customers.

A report released by McKinsey & Company and Efma in Autumn 2011 found that banks were bullish about the potential of mobile financial services. Some 87% of the banks surveyed for the study said they aimed to have a mobile site and 84% aimed to launch an app within the next 12 months, while 70% of banks said they were also planning to add more advanced functionality during the same period. Significant mobile platform upgrades were planned by 70% of the banks, and 10% were considering a complete channel overhaul. These ambitions illustrate banks' expectations that the mobile channel will capture as much as a quarter of all transactions within five years as customers shift away from branches.

However, the potential of mobile banking is yet to be fully unlocked. Although banks expect mobile technology to transform the retail banking landscape, they admit that they are not acting or investing accordingly. Many banks have only committed investment to the current year and have, at best, made only minor adaptations to commercial functions. In other words, they have not yet created a new underlying mobile business model or clear mobile

strategy. Meanwhile, non-banking organisations are leading the mobile revolution with a wide range of applications that offer an array of new payment options, including cross-border remittances and peer-to-peer payments.

Innovation plays a vital role in retaining existing customers, and while investing in mobile technology might mean extra cost, those who under-invest could see a large proportion of their market share captured by a rival. So how can banks use mobile channels to enhance both customer experience and profitability?

Making mobile profitable

One concern for banks is the possibility that methods such as mobile payments will diminish their role in the payments value chain. On the internet, the percentage retained by banks has been reduced by other players, and this will also be the case in the mobile space as intermediaries take an increasing proportion of the payment generated. This leaves banks facing a challenging business case: consumer demand for mobile payments means they can't afford to be left behind in the mobile revolution, but they face the prospect of making a sizeable technology investment only to become a funnel for funds at the start or end of the process while taking less value from the payment.

In order to add value and profitability to their mobile strategy, it's important for banks to look at the bigger picture of mobile commerce, which is being transformed by these technologies. Mobile embraces many existing and emerging technologies with the potential to bring them together in a consumer-centric experience. It reshapes the way consumers relate to their services – and thus to their service providers.

There can be no doubt that mobile has disrupted the payments and commerce industries. A lot of the investment

in mobile commerce comes from outside the payments industry. The line between online and physical presence is being blurred as consumers use their smartphones in-store to check on goods they want to buy, or research online before heading to a store where they can interact face-to-face. It's also becoming more difficult to gauge the effectiveness of advertising as the gap widens between the amount of time people spend online and the amount spent on advertising. But the information gathered through mobile media can be used to gain an edge over competitors. For example, organisations that gather information on who actually purchased as a result of an advertisement rather than just clicking through, can target their advertising more effectively and add value to payments.

In order to rise to the challenges, banks need to start investing in mobile and establishing preferred partnerships. Mobile payments are driving a much more efficient digital payments system that holds huge value beyond the payments themselves in terms of customer relationships, information and targeted selling opportunities.

Strategy for success

The unique characteristics of the mobile device present three distinct areas for innovation: ultra-convenient banking, digital commerce and opening up new markets and segments. A well-thought-out mobile strategy will enable banks to use mobile technologies to create differentiating and distinctive propositions for customers in their existing markets. This will not only safeguard their market share, but also deepen relationships with customers, allowing banks to cross-sell

risk-based and liability products.

As part of a multichannel approach, mobile gives an opportunity to create value-added services in a new way, opening new income streams and making it easier to provide information services. Mobile payments hold huge potential, with several technologies offering interesting possibilities. QR codes that encode the customer's personal data can be used for person-to-person payments, enabling the secure transfer of financial data between mobile phones. Emerging near-field communication (NFC) technology offers the potential for contactless merchant payments and exchanging data. And real-time, actionable push messages could be used for utility payments, with the user approving the payment on their mobile. But acceptance of these technologies from customer and merchants is vital to success.

Today's customer base is increasingly technology-savvy. Many customers have increasingly sophisticated smartphones and they expect to be able to connect to sophisticated services, from purchases to payments. While banks need to both educate and reassure some customers in their use of mobile technologies, mobile is popular with the mass affluent and the young, and services such as mobile payments are gaining their trust. For example, while traditional payment systems are still the most trusted, PayPal is now accepted as a traditional solution.

In this environment of increasingly connected customers, the key to success in mobile payments won't be technology or connectivity: it will be the business model. Customers aren't just looking for a quicker way to pay. They want simple transactions, simple payments, real-time access to their statements and balance, convenient money transfers and increased efficiency. The benefits of a fast

mobile payment service will be lost if the bank's technology infrastructure can't keep up with it in terms of speed, so it's important that mobile services form part of a multichannel strategy that enables smooth, secure communication and transactions.

For merchants, the business case for mobile payments has taken a long time to work through, as cash and card payments can be quicker, using the chip-and-pin technology that is already in place. But there is increasing interest in mobile payments from merchants, who will shortly need to upgrade their technology as the devices that were put in place for chip-and-pin are coming to the end of their life. Benefits including increased productivity, richer interactions with consumers, less cash handling, lower fraud risk and better loyalty programmes are likely to drive adoption of mobile payments here.

The importance of working together can't be overestimated. Developing strategic partnerships with technology vendors and ensuring that mobile payments services are well-integrated with merchants' payment systems will enable banks to develop innovative, secure mobile payment options that bring the bank to life for customers, creating an exceptional solution that convinces the customer to move from using cash.

Mercantile Bank in the US is a good example of a bank that recognises the importance of a multi-thread strategy. Mercantile acknowledges that with mobile payments, customers can make an international payment in two to three minutes, at a lower cost than with traditional international wires. In order to realise the benefits of this, the bank has found that partnering with PayPal to offer mobile payments represented a very low risk in terms of funding of PayPal's broad international experience of legislation. The bank continues to work with PayPal to develop features including

smartphone apps, tablet functionality including person-to-person payments, and payment through a mobile phone number.

Connecting with customers

In order to truly enrich the customer experience and add value, mobile banking services need to be simple and easy to use. Customers are looking for convenience, service and speed, and a small but growing number are beginning to change banks just to get a mobile banking service. But as anyone who has accessed the internet on a smartphone will know, some websites simply don't work well on a mobile device because they haven't been designed with mobile users in mind. It's of vital importance that mobile banking is designed for mobile devices, providing a simple and intuitive interface that works well on a small screen. In terms of mobile payments, the concept of a digital wallet that enables customers to carry receipts, loyalty cards and vouchers in their mobile devices is gaining popularity. Banks can provide these differentiating services by partnering with organisations that can help to build platforms and applications with the right security, and communicating that to customers.

Social media is an integral part of this interaction, and offers significant opportunities for banks. For many customers, mobile banking means taking their bank with them – they expect to interact with their service providers through the channel of their choice, as well as being able to access services while on the move, and the information they provide through these channels can be used by banks to improve service.

Banco Sabadell in Spain has embraced social media to provide a 24x7 service on networks like Twitter and Facebook, as well as a feedback platform for customers to suggest ideas and say what they expect the bank to do

in the future. These channels enable rapid feedback so the bank quickly learns what customers do and don't like and can respond accordingly. The bank is also working on providing mobile notifications through Facebook or another channel of the customer's choice, to inform them about real-time events. A good mobile solution can be a very effective method of attracting clients and developing brand loyalty, especially in the mass affluent and youth segments. It is one of the factors that these segments are looking for in a banking partner. Some banks are successfully using social media to promote offers or even using gaming to capture the interest of their audience and attract more customers, bringing them online to engage with a range of mobile functions including payments and financial products.

Cornerstone for success

Ultimately, banks need to choose whether they want to lead, shape or follow the mobile market, and develop a focused strategy and partnerships based on that decision. Mobile is changing the dynamics of the payment industry, but in doing so it is also opening up a range of opportunities for developing innovative value-added services, targeted marketing and brand loyalty. For banks, mobile payment services built through strategic partnerships will remain a cornerstone of a successful mobile strategy.

BRINGING SECURITY AND INTEROPERABILITY TO MOBILE TRANSACTIONS

Frederic Vasnier, Chairman of the Board, SIMalliance investigates the burgeoning mobile transactions market, and highlights the role of the Secure Element in assuring security, enabling interoperability and delivering revenue.

That the mobile device will become a powerful and ubiquitous transactional device is beyond doubt. The investments have been made, the technical issues are solved and the trials are underway. All that remains is to confirm the applications portfolio, agree the business model(s) and start marketing hard to target audiences.

Of course this is rather easier said than done. But the point is that the industry will get there because - whether it's an instant international transfer, stock trade or NFC proximity payment application - there is undoubted value for the customer (in both developed and emerging markets), and there's a clear revenue opportunity for mobile operators, retailers and financial services firms.

The only real element of debate here will be adoption curves and killer applications. Nothing will stop the mobile transaction train once it has left the station. Nothing that is, except a major security breach that either exposes millions of subscriber details or sees millions of dollars-worth of fraud.

Should these nightmare scenarios come to pass, they will damage consumer confidence so completely that they will kill the mobile transaction market for years to come. And that's why security is so absolutely critical. But as with so much else, too great a lock down will stifle development,

limit deployment and reduce adoption. Which is why security cannot exist without interoperability.

The security threat

While the sources vary, the message is clear; attacks on mobile internet devices and connected smartphones are rising rapidly. McAfee Labs released a report in September 2011 highlighting a 76% jump in malware targeting Android devices in the previous quarter alone.

Similarly, IBM's X-Force research group commented that while the number of known vulnerabilities in mobile operating systems only increased incrementally between 2010 and 2011, the actual number of exploits based on these flaws will likely double; leading to sensational headlines such as '2011: The Year of the Mobile Security Breach' and 'Mobile Security Breaches Inevitable'.

While calmer heads prevail, there is little doubt that the mobile threat level has been on a steady incline for a decade, and has recently exploded in line with the growing market penetration of internet connected smartphones and tablets. This is, of course, particularly significant for the mobile transaction market – with the vast majority of services involving some form of financial agreement; which in turn makes them subject to a host of tightly managed, and geographically different certifications and regulations – a potent cocktail of complexity.

The picture is further complicated by the existence of multiple payments schemes, from JCB and AMEX, to EMV and a host of domestic systems – not to mention multiple payment providers; from Apple, Google and PayPal to name just three. Success here means being in a position to rationalize and

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solve all these issues, while delivering the highest levels of identity protection and assurance. And as touched on above there's the need to deliver a fully open and interoperable service portfolio that is able to offer the ubiquity of access and seamless user experience will be critical in driving the market forward.

Two factors, one time only

Today, the most common protection mechanism for most mobile apps is single factor authentication. And it's highly inappropriate for the sort of mobile transactional services we're talking about. With single factor, the user is offered the opportunity to log-in with a password. That password is then authenticated via a remote server.

At any point the password can be stolen, the data intercepted during transit (as it lacks point to point encryption), the server attacked (and user data is exposed) or the input can be keylogged by a host of nefarious software programmes.

A move into two factor authentication would seem to solve this problem – particularly when combined with One Time Password (OTP) solutions that offer more stringent, time-bound authentication processes. In an online banking environment this second factor is delivered by a card reader and unique passcode, or could be sent via SMS.

But of course it doesn't.

While you certainly gain a higher level of security than standard password authentication (as the potential attacker will have to gain access to both channels to log in) the fact that smartphone users often unwittingly grant a host of applications access to their messages compromises the 'secure' SMS channel. And then there's the practical issues of user experience that need to be faced; asking user to copy codes between applications or carry multiple proprietary card readers is not conducive to mass service adoption. And this is an important point because in creating a challenging user experience security becomes a compromise, with consumers more likely to choose convenience over assurance – and that's when they are most at risk.

So we move to (Wireless) Public Key Encryption or (W)PKI. This is perhaps the most secure framework. WPKI is not, however, very popular. It is complex in design and to a very large degree flatters to deceive. While WPKI supports user identification, authorization and transport channel encryption, it also suffers from serious limitations as the certificates can be manipulated on both the client and server side.

So, with a lack of security inherent in these 'solutions' what is the best way forward for service providers and brands?

Enter the Secure Element

For the SIMalliance the most effective route to securing today's generation of smart open devices is through the adoption of a Secure Element (SE) within mobile security architectures.

The most common Security Element, and indeed the most widely used secure platform in the world, is the SIM. But with deployment flexibility and choice now key in today's market, the same level of functionality and security can

be delivered through other Secure Element form factors – and this unique combination of hardware and software can be hardwired directly into the handset or added through a secure Micro SD card.

The Secure Element is essentially the component within the connected mobile device that provides the application, the network and the user with the appropriate level of security and identity management to assure the safe delivery of a particular service. It is a combination of hardware and software, built to exacting standards and developed and delivered in controlled white room manufacturing environments.

Going back almost three decades, the most common secure element within the mobile space, and indeed the most widely used security platform in the world, is the SIM - or more accurately in today's world, the Universal Integrated Circuit Card (UICC). But as above, the SE can also be delivered as an embedded chip in the handset (eU-ICC) or external MicroSD card. Crucially, when discussing mobile transactions, the SE can be securely managed remotely. This is a critical feature when one considers the potential number of devices in the field today and the regularity of update.

Securing interoperability

But security is only part of the equation. Seamless communication between the application and the SE is required. It is this demand complete interoperability throughout the application development and delivery process that led to the development of the SIMalliance Open Mobile API initiative.

From a business perspective the creation of this common API is a very positive step forward. It delivers a single, consistent specification and interface across multiple operating systems –eliminating the need to reengineer applications to each specific operating system. This of course then results in reduced application development costs, time-to-market and time-to-revenue.

From a security perspective, connecting the applications to the Secure Element delivers a higher security while the credentials (passwords, codes, license keys, etc.) are stored in a secure environment and the access to it is regulated. In this ideal scenario (system setup) the credentials are never exposed to the outside world in plain text.

Launched in 2011, the SIMalliance Open Mobile API Specification describes how a mobile application running on an open smartphone operating system can access a Secure Element. In Release 1.2, the specification describes the process of managing the transport layer to allow applications to transmit messages to the SE. The format of those messages is called APDU (Application Protocol Data Unit).

Open Mobile API Release 2 enhances the current transport API to provide a more intuitive interface and increasingly powerful functionality to make it easier for developers to connect their applications to the Secure Element within today's feature phones and smartphones. A common set of reusable high level services as crypto, file management, discovery, PKCS#15 and secure storage, allows developers to allocate

time and resource to developing the functionality of their application rather than focusing on the complexities of integration with the device's Secure Element.

SIMalliance also established a formal partnership with GlobalPlatform in 2011. Through this partnership, the associations will work together to develop an end-to-end solution that will allow a mobile device application to communicate with an application loaded in a Secure Element. The two associations will work together to combine the filtering technology of GlobalPlatform (known as SE access control) with the Open API, to deliver a complete solution for the mobile ecosystem.

Security and interoperability; catalysts for mobile transaction growth

The introduction and wide scale adoption of the Secure Element as the de facto security for mobile devices and applications will significantly increase levels of assurance for mobile transactions. It will combat the ever-growing sophistication and volume of attacks much more comprehensively and much more successfully than the conventional solutions discussed above.

In short, connecting the application to the Secure Element within the device is the only way to guarantee the highest levels of security for connected mobile devices in an IP world.

But as we have discussed, security is nothing without interoperability. For this reason we are encouraging the o/s, application developer and mobile community at large to utilize these essential security features which, together with the Open Mobile API, will enable the industry to support, rather than stifle, the developing market for mobile transaction services.

For more information on SIMalliance's position, attend our next Webinar on "Bringing Security and Interoperability to Mobile Transactions" on 5th April 2012 at 4:30 PM CET at www.simalliance.org.

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Secure Element Architects for Today's Generation

SIMalliance is (the non-profit trade association) dedicated to supporting the creation, deployment and management of secure mobile services across the globe. Working in partnership with members and the wider mobile community, SIMalliance anticipates and addresses the security, identity and mobility challenges of an increasingly converged internet. Through its working groups the alliance seeks to offer the blueprint to create a secure, open and interoperable environment where mobile services thrive.

SIMalliance members are Datang, Eastcompeace, Gemalto, Giesecke & Devrient, Incard, Inkript, Kebt, Oberthur Technologies, Morpho, Valid, Watchdata & Wuhan Tianyu.

INDUSTRY THOUGHT LEADERSHIP

HARMONIZING MOBILE PAYMENTS

Lorenzo Gaston, Technical Director from the Smart Payment Association takes a look at the opportunities on offer, and the steps needed to achieve, true mobile payment services harmonization.

The ubiquity, and indeed the popularity, of card payments across the developed world is based on two interconnected principles; security and standardization. Without the first, the lack of consumer (and merchant) confidence would have stifled adoption, while the absence of the second would have prevented the kind of transaction volumes required for retail card payments to be considered successful.

And it will be no different in the mobile world.

Trust is a prerequisite in the success or otherwise of mobile transactions. It must be enjoyed by every member of the value chain; from financial institutions, mobile telecom operators and regulators, through to retailers, vendors and of course, end-users. But such commonality does not exist today. Fraud remains a key concern, and while there are undoubted efforts to address these issues, barriers remain. It is perhaps ironic that these barriers are often the product of attempts to encourage that second principle – standardization.

As with card payments before, ubiquitous adoption of mobile payment mechanisms relies on the interoperability of all devices – from the handset to the point of sale terminal. This in turn demands openness. But the more open and interoperable the device, the more code is exposed and the higher the chance of (successful) attack, specifically if the standardization is achieved on the least common de-

nominator. It is by any measure a thorny problem.

And this challenge is further exacerbated by the differing markets for mobile transactions. In the Western economies, the opportunity is all about adding value - delivering a suplimentary method of payment. Moreover mobile payments represent an evolution of those payments schemes, reusing many things, but open the doors to new opportunities. The mobile is a active device and as such has a greater interactive potential than a plastic card Audiences are, by and large, already 'banked' and so able to benefit from existing smart card payment infrastructures should they wish. Because of this availability of other secure, reliable and standardized payment options even small concerns over security will tip the balance away from mobile payments adoption at astonishing speed.

In the developing world mobile payments applications offer more fundamental and wider-ranging opportunities. The ability of the mobile device to reach rural populations is undoubted, and provides the catalyst for building economies through the creation of local banking infrastructures that wouldn't otherwise be possible. Here, the security concern is of a different nature; with financial and regulatory bodies fearing the development of an uncontrolled, parallel financial system – where, for example, money laundering may occur.

The security threat

So what's the solution? As in all good support groups, the first step is recognizing the problem. We must develop a common understanding in terms of the vulnerabilities of proposed mobile payments systems, and recognize the central risks that we must overcome.

Of course, this is easier said than done, partly because of the number of commercial, regulatory and governmental actors at play, but also because the security policy adopted by a mobile payments scheme will largely be dependent on the nature and risks of the payment instruments offered.

A level of standardization is necessary, yet the competitive nature of the mobile environment has led to the profusion in payment products, services, rules and technologies. The existence of differing and often proprietary solutions based on incompatible devices, applications and operating systems – and indeed the use of non-transparent security specifications - mean this dynamic market will not easily lend itself to blanket agreement on the way forward.

It is for these reasons that the Smart Payment Association exists; to monitor secure payment technology trends, drive adoption and, through its seats on various standards bodies, encourage cooperation between all players in the value chain.

The first steps

Support and working closely with the SPA are a community of organizations committed to delivering standard solutions for the interoperability of certain interfaces (Global Platform, EMVCo, European Payments Council, Mobey Forum, NFC-Forum), as well as promoting security mechanisms (ISO TC68 , ISO JTC1 SC27).

This is a good sign, yet now the challenge is to provide a security framework that is flexible enough to accommodate different interests; one that will enable liability allocation settings, comply with regulatory constraints, scale to the needs of each particular mobile payments service and, to as great a degree as possible, be based on existing, proven infrastructures.

To bring some clarity and direction to this debate, the Smart Payment Association has developed a clear set of recommendation in a new whitepaper launched early April 2012, entitled 'Security for Mobile Payments'.

Arguing in favor of the harmonization of standards and technologies, the SPA considers the process is best achieved at a regional level first. As an example, the European Payments Council is already working to create a Single European Payments Area (or SEPA) for all payments instruments. Once ratified the aim is to extend this harmonization worldwide; creating the appropriate international security standards, and crucially, monitoring their adoption through the development of roadmaps that take into account local market and legal peculiarities.

The SPA position

The logic, the SPA believes, of such an approach is irrefutable. And as discussed at the beginning of the article, it is crucial to maximize the synergies between interoperability and security. The former is necessary in order to optimize the network effect of existing systems, while the overall integrity of payments services can only be assured by the adoption of security protocols at each interface used to initiate and confirm a payment order.

Secondly, the security mechanisms being implemented by different payment processing devices should be certified using harmonized methodologies against transparent, formal and standard security requirements. Here, the SPA encourages the convergence of local initiatives as SEPA and EMVCo and PCI international certification practices.

In support of this, and because mobile payments security relies heavily on the device involved in the transaction, the SPA is also driving the development of a formal, standardized requirement for mobile phones, smartphones and tablets. Indeed, the computing power of today's smart devices lend themselves to the deployment of advanced user authentication technologies, including biometrics.

smart payment
association

Of course, the presence of the Secure Element within the device – be that the SIM, embedded Secure Element or MicroSD card – offers assurance today. Crucially, the development of Open APIs enabling applications to access the SE also offers an opportunity to create a common interface and over-the-air management capability for multiple services. In doing so this assures a more seamless user experience while creating a catalyst for banks, mobile telecommunications operators and Trusted Service Managers (TSM) to come together to develop key enabling agreements.

Understanding and accepting these recommendations, the SPA believes, will contribute significantly to the development of a seamlessly interoperable and secure ecosystem able to drive consumer and industry confidence.

This will drive adoption, both of complimentary services in developed economies and wider transactional banking infrastructures in the emerging markets, and further encourage greater service innovation, revenue and growth. And that's great news for the entire industry.

To access Smart Payment Association White Paper "Security for Mobile Payments", go to www.smartpaymentassociation.com

ASIA &
PACIFIC

DEFINING THE **MOBILE PAYMENTS** PROPOSITION

Simon Hardie is the managing director of Eurasia Insights, the research house focussed on the development of retail financial services across Central & Eastern Europe and Central Asia. Previously director of VRL, a retail financial services publisher, Simon has worked as a thought leader with some of the world's leading financial information companies including Euromoney Institutional Investor and The Economist Group.

" A new study on mobile payments in Turkey by research house Eurasia Insights shows a lot of banking push but that consumer or merchant pull is more challenging "

Simon Hardie, Managing Director, Eurasia Insights

Turkey - Key Statistics	
Population	74 million
Unbanked population	40 million
Mobile market penetration	89%
POS machines	1.8 million
Economic growth 2011	8%
Consumer debts as proportion of GDP	52%
Number of cards (debit & credit)	118 million
Number of retails banks	34

Source: Eurasia Insights

When it comes to payments, Turkey is increasingly at the top of most people's lists of innovative markets. A dynamic, mainly young (average age below 29) country with a solid banking sector that has survived the crisis, helped the country's economic renaissance and won worldwide recognition for the level and sophistication of its credit card marketplace, the country has much to be proud of.

It is against this backdrop that the country's leading banks – and a few smaller ones – alongside Turkcell, the dominant mobile network operator, and interbank payment processor, BKM, have launched what is to date one of the most comprehensive range of mobile payment facilities anywhere in the world.

The range of products already on the market is impressive. From Akbank's person to person payment app and MicroSD card for Blackberry phones to Garanti and Bank Asya's NFC antennae to Yapi Kredi's iCarte for the iPhone and Turkcell's world first NFC-ready handsets, a wide range of solutions are already on offer. With more anticipated during the first half of 2012.

When will your company launch a mobile payment product ?

Already launched	48%
No plans to launch	10%
No responses	24%
Not within 5 years	0%
Within 1-2 years	14%
Within 3-4 years	5%

When will mobile payments become mainstream ?

Mainstream today	5%
Within 1-2 years	12%
Within 3-4 years	29%
Within 5-10 years	10%
In more than 10 years	2%
No responses	43%

In spite of this however, the market is fragmented (see table). With a highly competitive retail banking market and a history of credit cards accounting for close to 50 percent of annual banking profits, the leading banks are, perhaps understandably, keen to stake their claim as the mobile payments pioneer with a facility that they see has the potential to dominate the industry within a few years.

NFC antenna	iPhone - iCarte
BANK ASYA	YapıKredi
Garanti	YapıKredi PayMobile®
MicroSD Card & Peer to Peer app	**NFC phone**
AKBANK	TURKCELL

The launch of mobile financial services in Turkey however has been done with very different objectives to those of other emerging markets. The go-it-alone strategies that

have been launched so far all have two clear aims in common – to demonstrate the bank's innovative prowess and to win loyalty from premium credit card customers.

Only mobile operator Turkcell so far with its strategy of own-branded NFC handsets, sold at low cost, has even admitted to trying to drive acceptance and broaden adoption among

the mass market for mobile payments. For everyone else when it comes to mobile it remains a product for the top of the pyramid.

And here's the challenge. With the heavy cost of investment in mobile financial services, banks are keen to get their products in the hands of their customers. But with customers already comfortable with their existing credit cards and a shortage of contactless/ NFC ready POS units – estimated to be at around 60,000 including terminals in use and in stock – there is little consumer awareness, and as a result little demand, to pay by mobile phone.

This is not to say that there have not been any significant successes. Garanti's launch of its mobile prepaid card – Cep-T Para card – a prepaid card designed for the youth segment and that can be credited using a mobile phone is an example of a product for a clearly defined audience with a significant marketing budget and carefully considered strategy. The card was launched in conjunction with a summer music festival. Similarly, Bank Asya's contactless DIT card – geared for use

on transportation systems – has proven that targeting a specific segment with a proposition that drives use can win benefits by winning wallet share.

And this is the important point. As Turkey's stellar growth rates succumb to the Eurozone crisis over the coming year and banking profits hit a bumpy patch, the range and historic generosity of the innovation projects of the country's banks is likely to be curtailed unless suitable return on investment can be justified.

What are the important attributes of a succesful mobile payment strategy ?

Low cost	29%
Speed	36%
Convenience	57%
Security	61%
Simplicity / ease of use	68%
User experience	71%

There is no doubt that 2012 will see a host of new mobile payment launches from a range of mid-tier banks in Turkey and the country will continue to be an important testing-ground for payment innovations. However, as the Eurasia Insights report shows, the winners in the new mobile payments race are likely to be those institutions that can combine a compelling consumer proposition, with a product that is widely accepted and suitably easy to use. The exciting thing is that the winner may well not be one of the old guard of Turkish retail banking.

Insights and data are taken from Mobile Banking & Payments Turkey 2012, published by Eurasia Insights. For more details - simon.hardie@eurasiainsights.com or www.eurasiainsights.com

INITIATIVES:
ASIA &
PACIFIC

HDFC Bank MobileBank Account with Vodafone m-paisa

Name	HDFC Bank MobileBank Account with Vodafone m-paisa
Website	http://www.hdfcbank.com/aboutus/News_Room/pdf/MPaisa-launch-Chomu.pdf
Description	Vodafone's M-Paisa service allows Vodafone clients to carry out banking transactions via their handsets. Under the terms of the partnership with HDFC Bank, selected Vodafone outlets in the region will function as bank branches, allowing clients to deposit money and fund their accounts.
Companies involved	HDFC Bank, Vodafone India
Country	India
Types of services provided	Mobile wallet
Types of technology used	SMS, USSD
Other details	The M-paisa service allows consumers to deposit and withdraw cash, send money to other mobile phones, buy recharge or airtime and also receive money from overseas onto their Vodafone mobile devices. The Vodafone M-paisa service is available at 2,200 retailers in 320 villages and 54 towns in the state of Rajasthan.

Digital wallet service

Name	Digital wallet service
Description	American Express has licensed Lianlian Group to use Serve, its e-commerce technology, in products and services it develops for its consumer and business customers in China. The Serve platform is expected to power a new Lianlian Group digital wallet that consumers can use to top up mobile phone minutes, pay bills and purchase products or services.
Companies involved	American Express, Lianlian Group
Country	China
Types of services provided	Mobile top-up; mobile purchases
Types of technology used	WAP / Internet
Other details	American Express has also made an equity investment in Lianlian Pay Inc., an overseas company of the Lianlian group of companies (collectively "Lianlian Group")

eMoney XChange

Name	eMoney XChange
Website	http://www.unionbankph.com/index.php?option=com_content&view=article&id=2032&Itemid=887
Description	eMoney XChange enables UnionBank clients in the Philippines with EON, E-Wallet, ePayCard and UnionBank regular savings and checking accounts to transfer funds to and from their GCash wallets via SMS through their UnionBank. This service complements the UnionBank's Globe Mobile Banking facility.
Companies involved	G-XChange (a subsidiary of Globe Telecom), GCash
Country	The Philippines
Types of services provided	Mobile wallet
Other details	UnionBank's EON Visa Debit Card serves as payment facility for online entrepreneurs and online shoppers. GCASH is a mobile wallet facility available to Globe and TM subscribers that allows cashless and cardless method of facilitating money remittance, donations, loan settlement, disbursement of salaries or commissions, and payment of bills, products and services, via a text message. In the Philippines, GCash is intensely used for online shopping, gaming and payment websites.

QkR

Name	QkR
Description	The QkR mobile payment app is set to be piloted at Australian cinema chain Hoyts. Film-goers who have an iPhone or Android-powered handset will be able to use the app to scan the QR code on the seat table or enter a QkR label. The menu launches and items can be paid for using the pre-registered digital wallet. The order and seat location are then sent to Hoyts' staff using the GPS service and the order is delivered to the customer's seat.
Companies involved	MasterCard Australia, Commonwealth Bank of Australia
Country	Australia
Types of services provided	Mobile wallet
Types of technology used	QR codes
Other details	The QkR pilot follows the launch of CBA's CommbankKaching app which enables peer-to-peer payments and uses MasterCard PayPass to allow customers to tap their phone to pay at check-out.

Bestpay mobile payment app

Name	Bestpay mobile payment app
Website	
Description	Chinese provider of mobile payment services Trunkbow has entered a strategic partnership agreement with Tianyi e-Commerce, a wholly owned subsidiary of Chinese telecom operator China Telecom. Under thedeal, Trunkbow will provide application development and support services for China Telecom's Bestpay m-payment application
Companies involved	Trunkbow, China Telecom
Country	China
Types of services provided	Mobile purchases, online transactions
Types of technology used	WAP / Internet
Other details	With the Bestpay mobile app, China Telecom 3G subscribers can also complete online transactions, including the payment of telephone and other bills, purchase of lottery, movie and event tickets and online gaming 'point cards', while also checking transaction records and account balances

TPAYmobile.com

Name	TPAYmobile.com
Website	http://tpaymobile.com/
Description	TPAYmobile.com is a cross platform in-application billing service for mobile applications and games.
Companies involved	Tanla Solutions
Country	India
Types of services provided	In-app payment
Other details	Through an integration with TPAYmobile, developers can access billing services on over 100 mobile networks and gain the ability to charge through credit and debit cards globally. TPAYmobile provides developers with the ability to monetize their online contents via business such as in-application billing, try & buy, time bound licensing and subscriptions

EUROPE

MONEY ON THE MOVE

Early mobile payment systems based upon the WAP protocol were not notably successful. Today's mobile payment systems can count on broadband access to the Internet via sophisticated applications loaded in powerful smartphones, and their usage is growing rapidly. Airlines, banks, merchants, charities, among others, are all seeing mobile payments jump ahead and analysts report signs that in 2012, more than 400 million people will be using their mobile phones to make payments. Roelant Prins, CCO at Adyen, suggests that a cashless society is not that far away.

In recent years, e-commerce and online payments have become firmly part of the mainstream, but next generation Smartphone technology is causing a lot of businesses to consider m-commerce and mobile payments as a serious alternative.

Demand for fully functional, easy-to-use mobile services and applications that can support our lifestyles means that there is now an array of mobile applications that can handle almost anything, and cater to almost all tastes. As a channel for the movement of money, mobile represents a massive area of opportunity for banks, building societies, retailers, gambling, travel and dating businesses.

Our data shows that over the past six months (from September 2011 to March 2012) the total percentage of mobile payments processed by Adyen has doubled from 3.7 percent to 6.2 percent and these numbers continue to grow. The introduction of tablet devices such as the iPad and the increasing ubiquity of advanced Android and iPhone devices have presented consumers with entirely new platforms to purchase goods on the go, and are key drivers behind this growth.

In reality, the technology to support this application of mobile technology has been around for a number of years. So what has happened to bring money to our mobiles in 2012?

Wireless Application Protocol

Back in the late 1990s a number of global telecoms brands, including the likes of Nokia, Motorola and Ericsson, came together to develop a universal standard that, they believed, would be integral to the successful implementation of the Web on wireless devices. This worked by converting existing, data-heavy Web pages into a simplified language for viewing on micro mobile browsers.

The Wireless Application Protocol (WAP) was incorporated into a range of first generation smartphone devices and this was followed by the development of a multitude of mobile Web services to take advantage of this new technology. Most of the major European banks developed mobile Web-enabled banking services for their customers and merchants began accepting payments through mobile channels. But WAP was overhyped.

The first Smartphone Web-enabled devices, launched in

1999, fell far short of expectations. A combination of cost (WAP's charging model forced users to pay each minute, regardless of the amount of data received), closed connectivity (WAP only ever worked with native WAP and Web-to-WAP proxy content) and chronic speed issues, meant that the devices were met with widespread derision and the adoption monikers such as 'Worthless Application Protocol' and 'Wait and Pay'.

Despite its flaws, WAP was a hugely significant step forward for the industry and revealed the burgeoning demand for data services and ever-greater data speeds over mobile.

Money as a virtualised reality

The lessons learned from WAP have resulted in mobile technological advancements that have begun to outstrip even that of some PC's and laptops. Today, Smartphones and tablets with data-optimised mobile technologies deliver higher speeds, better accessibility and functionality, and are capable of offering high-quality IP-based mobile broadband.

The advances are such that there now exists a very real opportunity for mobile technology to become the primary channel for customer interaction – and the banks and merchants have taken note.

Juniper Research, a telecom industry analyst, has estimated that more than the number of mobile subscribers using their mobile phones for payments is likely to hit 400 million in 2012 – a figure that is almost double that of two years ago. Many retail banks have already announced mobile banking applications and have seen overwhelming customer demand for these services.

With web pages now heavily optimised for mobile, using the native interface of the handset, consumers can now

feel more secure entering card numbers, making payments and checking account details. Furthermore, the introduction of single-click technology (an important element of Adyen's payment platform that has received widespread adoption) when making transactions, has simplified the payment experience for returning shoppers and made transacting on mobile a far more appealing prospect.

Our research has found that payment conversion rates tend to be around 30 percent higher on mobile-optimised websites on devices such as iPad, iPhone and Android, than conversion in mobile applications. One explanation for this is the relatively limited array of in-app payment methods currently supported, which can lead to higher abandonment rates. It is an area where we expect significant change, with alternative payment methods compatible with mobile applications, such as the popular iDeal, being introduced over the coming months. Regardless, as money has become more of a virtual reality, it is becoming increasingly clear that innovative service offerings have made mobile the 'must have' channel.

Information overload

Studies have shown that adoption of mobile technologies has grown more quickly than the Internet and email. The Internet, new media, 24/7 communication and connectivity and powerful business tools continue to bombard us all with more information than ever before, making us more willing to adopt technologies that make our lives just that little bit simpler.

A great example of this can be found in the airline industry, one of the first to embrace new mobile technologies. The ability to purchase or change plane tickets with the simple click of a button on a mobile phone is enormously attractive to both the airlines and their customers. Proliferation of mobile payment technology in the airline industry is such that a recent Airline Business SITA trends survey suggests that 70 percent of all airlines will be selling directly to passengers who have used their mobile devices to purchase tickets by 2013 – big business indeed. At Adyen, we have noticed similar uptake and demand working with

large international airlines such as LAN in South America, and the European based Transavia, a Dutch subsidiary of KLM.

Another example can be found in the gambling arena, helped in no small measure by the growing popularity of 'Bet in Play', an activity that enables users to gamble whilst an event is ongoing.

The gaming industry has always experienced high payment conversion rates thanks to payment systems that have been modified to provide streamlined, uncluttered payment processes, making it as easy as possible for customers to make that 'I have a feeling' bet. Mobile technology allows customers to make a bet whilst in a pub watching a game on TV, or even in the stands at the event itself.

Ultimately, the growth in mobile can be attributed to simplicity, accessibility and choice.

The future is here

Predicting the future is always difficult, but one of the advantages of being a flexible, agile company such as Adyen, means that we can adapt quicker to changing market conditions, technology and business trends. And we know some things are certain.

The proliferation of WiFi networks, ever more powerful Smartphones and wireless tablet devices have made it simple, quick and easy for people to transact and handle money over mobile.

Perhaps talk of a 'cashless society' is not as far off as we thought.

By Roelant Prins, CCO, Adyen

INITIATIVES: EUROPE

walletXpress

Name	walletXpress
Website	https://www.cee.siemens.com/web/at/en/csb/cmt/products/walletXpress/Documents/walletXpress-Flyer_web.pdf
Description	The walletXpress allows users to pay for purchases and services including airtime top-ups and it provides access to payment channels such as mobile wallets for carriers to offer direct carrier billing or bank and credit-card payments. The walletXpress integrates with Siemens CMT's loyalty service dubbed bonusXpress to enable users to collect reward points and have access to discounts.
Companies involved	Siemens Communications, Media and Technology (CMT), Nokia Siemens Networks
Types of services provided	Mobile wallet
Types of technology used	SMS, USSD, mobile Java
Other details	walletXpress integrates voucher-based recharging, voucherless recharging and mobile payment into one single solution, which ensures efficient use of hardware resources and software licenses.

mpass

Name	mpass
Website	http://www.mpass.de/
Description	The mpass system enables merchants to accept direct carrier billed payments for virtual, digital and physical goods.
Companies involved	PaymentOne, Telefónica Germany
Country	Germany
Types of services provided	Direct carrier billing
Types of technology used	SMS, WAP / internet
Other details	PaymentOne's merchant customers can provide Telefónica Germany subscribers with the option to charge services up to EUR 30 directly to their mobile phone carrier bill. The partnership enables one-time transactions, recurring subscriptions, in-app billing and online billing.

Quick Tap

Name	Quick Tap
Website	http://shop.orange.co.uk/mobile-phones/contactless/
Description	Quick Tap is a contactless mobile payments service which allows UK consumers to make purchases of GBP 15 by tapping their Quick Tap mobile handset against a contactless reader at over 50,000 stores in the UK.
Companies involved	Orange UK, Barclaycard, MasterCard, Gemalto
Country	UK
Types of services provided	Contactless payments service
Types of technology used	NFC
Other details	MasterCard is set to provide the payment capability for the contactless mobile transactions of the new mobile payment service. Gemalto provides TSM operated services which enable the secure deployment and management of mobile contactless payment. Gemalto's NFC services also include UICC Cards supplied to Orange.

RuRu

Name	RuRu
Website	https://www.ruru.ru/
Description	RuRu is a payment system that is set to offer mobile/e-commerce payments and P2P transfers as well as mobile remittances to Russian consumers.
Companies involved	Alfa-Bank, VimpelCom
Country	Russia
Types of services provided	Mobile money transfer; mobile remittance
Types of technology used	WAP / internet
Other details	The RuRu platform is set to enable customers to pay for telecoms services, utilities, fees for loans and payments to the state, railway and air tickets or tickets to entertainment events. As part of future developments, the partnership is also planning to provide customers with NFC services.

Mobile commerce & payments services for retailers

Name	Mobile commerce & payments services for retailers
Website	http://mobilemoneynetwork.com/
Description	Visa Europe and the Mobile Money Network will implement a number of m-commerce initiatives in the UK in 2012, taking MMN's infrastructure for mobile shopping to the mass market.
Companies involved	Visa Europe, Mobile Money Network (MMN)
Types of services provided	Mobile checkout
Types of technology used	NFC
Other details	MMN's instant mobile checkout, Simply Tap, allows customers to identify and purchase products on their mobile devices and have them delivered to their home address. As part of the new agreement, the app is set to provide new offers available only to Visa cardholders.

Pouch Mobile Wallet

Name	Pouch Mobile Wallet
Website	http://www.yes-wallet.com/pouch_wallet_service.html
Description	The Pouch wallet is designed to store credit and debit payment card details, payment receipts, loyalty and coupon information and enables customers to carry out payments via their smartphones
Companies involved	YES-wallet.com
Types of services provided	Mobile wallet
Types of technology used	WAP / Internet
Other details	Pouch supports roll-out of retail couponing, loyalty and location-based mobile advertising and marketing services, many of which will use NFC in the future. Standard Visa / MasterCard Payment applications are also supported via this wallet service. The mobile app is available for BlackBerry, iPhone and Android devices.

Mobile NFC payment system (trial)

Name	Mobile NFC payment system (trial)
Description	This payment system features multi-brand NFC mobile and is set to enable users to make purchases by putting their mobile devices close up to the point-of-sale terminals. The system will be tested in a pilot project in the Group Santander City near Madrid.
Companies involved	Ingenico, Banco Santander, Orange
Country	Spain
Types of services provided	The system based on NFC technology is set to allow users to make payments in restaurants, convenience stores and at vending machines as well as obtain information from the services that they can find on it through a system of NFC labels.
Types of technology used	NFC

Buyster

Name	Buyster
Website	http://buyster.fr/
Description	Buyster enables mobile operators to supplement their existing remote payment services by addressing the market for online-macro payments, complementing existing "kiosk" offers (Internet+, MPME) which enable goods and digital services to be paid for by adding small amounts directly to the telecom bill.
Companies involved	Atos Origin, Bouygues Telecom, Orange, SFR
Country	France
Types of services provided	Remote payment service for fixed and mobile internet-based purchases
Types of technology used	NFC
Other details	The Buyster service will be offered through the JV's mobile telephony partners, which together account for over 50 million consumers. Buyster is set to target online merchants, capitalizing on the market presence of partners such as Atos Worldline.

CardMobile

Name	CardMobile
Website	https://www.r-card-service.at
Description	CardMobile combines Visa Europe's V PAY with Cardis' payment plug-in to enable users to carry out mobile contactless transactions without using debit or credit cards.
Companies involved	Raiffeisen Bank, Visa Europe, Cardis International
Country	Austria
Types of services provided	Mobile contactless payments
Other details	Users are provided with a mobile phone application and a microSD-card for their phone, which includes a chip with a secure payment application as well as an antenna for contactless communication with the payment terminal. As well as CardMobile, Raiffeisen Bank will also issue V PAY contactless cards.

Cityzi

Name	Cityzi
Website	http://www.cityzi.fr/
Description	The "Nice, mobile contactless city" commercial project is being developed in conjunction with mobile operators, banks, transport operators and the retail sector, with the support of the French government. The program enables citizens and visitors in Nice to use their NFC-enabled mobile phones to pay at restaurants, supermarkets and local stores, as well as riding the city's buses and tramways.
Companies involved	Orange, Bouygues Télécom, SFR, Veolia Crédit Mutuel, Société Générale, BNP Paribas
Types of services provided	Mobile contactless payments
Types of technology used	NFC

Cep-T ParaCard

Name	Cep-T ParaCard
Website	http://www.paracard.com.tr/Hangi-Paracard/cep-t-paracard
Description	The Cep-T ParaCard is a SIM-based offering that can be used with any mobile device. Turkcell customers can purchase the Cep-T ParaCard and subscribe to the Cep-T Para service from any Turkcell Communication Centre and top-up money to the card via the Garanti PoS.
Companies involved	Turkcell, Garanti Bank
Country	Turkey
Types of services provided	Mobile money tranfers; mobile top-ups
Types of technology used	SMS, USSD

INNOPAY ON MOBILE PAYMENTS: CONTEXT IS KING

Shikko Nijland is Partner at Innopay, an independent management consultancy firm specialized in payments, e-invoicing en e-identification related matters. Prior to Innopay, Prior to Innopay Shikko was Partner at Accenture and was heading the corporate strategy practice. He has over 15 years experience in strategy & management consultancy.

Mobile payments continue to be a hot topic. Recent developments have created a thriving environment for mobile payments and analysts are optimistic about its future. Nonetheless, mobile payments are complex with multiple possible types of mobile payment services, technologies and stakeholders. Therefore, developing a successful mobile payment service can be a challenge. To be successful, one needs to have a thorough understanding of the context of the mobile payment. Develop a service that best suits the user needs for this context to be able to seize the opportunity of mobile payments.

Mobile internet and apps open up a new era for mobile payments

The attention for mobile payments has been rising steadily over the past years. With the rise of smartphones ever more people have access to highly advanced handsets. The advent of mobile internet and applications, or apps, has paved the way to more extensive and specific functionalities providing better user experience. As consumers become more engaged with their mobile phones, mobile payments draw ever more attention. While mobile payments is not a new topic, with first initiatives dating back 10 – 15 years ago, the evolution in smartphone pen-

etration and personal finance habits are creating a new era for mobile payments.

This all makes analysts optimistic, predicting mobile payments to grow with double-digit figures on an annual basis. Gartner, for example, predicts that the number of mobile payment users worldwide will surpass 140 million in 2011, an increase of almost 40% compared to 2010. Together they are expected to account for a global transaction value of over USD 1 billion in 2014. In addition, the mobile payment users would represent merely 2.1% of all mobile phone users, which suggests there is still ample room for future growth.

Understanding the context and user needs is key to success

In order to develop a successful mobile payment service, one must have a clear understanding of its context and develop a service that best suits its context. The context is defined by the factors of Relation, Product, Location and Timing of the payment. For example, a mobile payment can be performed in the local grocery store or with a friend; can be used to pay for both digital and physical goods, with high or low value; be at the counter of a store or online through the mobile browser; and the mobile payment may be before, at or after the delivery of the good. Combinations of these attributes make up a large number of possible contexts.

This context determines the perceived benefit to the users of a mobile payment service in terms of usability, costs and risk. For example, making a small payment in store puts other requirements on the service than purchasing a large value product through the mobile browser. It is important how

quick and easy the payment service is. In addition, what are the investments versus the added value? What are the risks? On the three factors of usability, costs and risks the mobile payment service must offer benefits for using it, for both the consumer and merchant.

As there are numerous contexts in which the mobile payment may take place, a "one size fits all" approach is challenging to achieve. Differentiation between markets must be made in terms of the overall proposition behind mobile financial services. Consumer needs and perceived obstacles, along with technological developments all need to be taken into account.

Large variety of possible mobile payment services
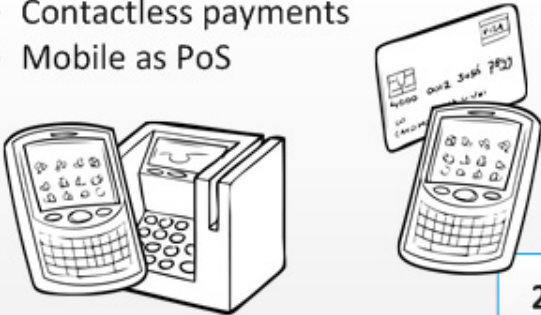
Still, the mobile payments landscape is a complex one. There are several types of mobile payments (see Figure 1). We base this categorization on the factors of relation (P2P or C2B) and distance (proximity or remote), adding up to

four main categories. For these categories, there are multiple technologies, such as voice response, text messaging, the mobile internet, 2D barcodes and near field communication. Combinations of mobile payment categories and technologies result in a large variety of possible mobile payment services.

In addition, different players and stakeholders, such as financial institutions, mobile network operators, technology providers, regulators and many others make up the mobile payment ecosystem. Each stakeholder has its own considerations that all must be balanced. Developing a successful mobile payments service can therefore be quite a challenge.

Offer added value over existing methods in developed countries

In developed countries, such as in Europe or North America, mobile payments are not a novelty, with the first initiatives dating from more than 10 years ago. With the rise of the smartphone and mobile applications a new landscape

has emerged. However, mobile payments face competition from existing methods. Therefore, they must offer added value to make their use more attractive, compared to other payment methods, for both consumers and merchants: they must be easier, cheaper, safer, and commonly accepted.

Mobile payments in a store should be faster while offering additional services as loyalty and marketing tools for the merchants, compared to paying by debit card. Shopping and paying through the mobile browser should be simpler and cost less than paying by credit card. Making a P2P payment to a friend should be simpler and quicker than paying by cash or through online banking. The examples of Square and Starbucks Card Mobile show that it is possible to develop successful mobile payment services that offer such added value over existing methods.

Developing iDEAL Mobile

For a group of major Dutch banks Innopay helped to create iDEAL, an online banking epayments scheme. This nationwide service went live in 2005, just 12 months after its conception and has become the main online payment method in The Netherlands, with a market share of 58% in online payments. With the rise of m-commerce there came the demand to enable iDEAL for use on the mobile phone.

In 2011 Innopay assisted Currence, the owner of the iDEAL scheme, in creating additional requirements for 'iDEAL Mobile'. The additional criteria were based on experiences from mobile payment pilots done by Dutch banks and include minor technical changes (to redirect payments to a banking app or mobile web page instead of the regular online banking page), changes to usability aspects and specification of different security aspects related to a mobile transaction. Currently all banks and merchants that use iDEAL have the ability to also implement it for mobile use with only minor changes to their systems needed.

Provide financial inclusion in developing countries

In developing countries, such as in Africa or parts of Asia, mobile financial services have strong potential as they do not face 'competition' from legacy infrastructures. They thus have the potential to create a completely new market. Some of the most successful stories in mobile payment originate from countries like Kenya or India. The opportunity lies in the capitalization on the large number of unbanked and underbanked consumers. Keeping it simple is key: most devices in developing markets are basic, without advanced features.

Some examples show that innovative solutions can be found to allow easier access to financial services, rather than branches and banks. M-PESA from Kenya is touted to be the reference case for the success of mobile payments, allowing mobile funds transfers to both rural and remote areas. Also, in other parts of the world mobile phones enable financial services where there are no alternative. For example, the mobile payment service of M-Paisa in Afghanistan allows the population to make safe and cheap long distance money transfers.

Focus on the context to seize the opportunity

In general there are great opportunities in mobile payments. However, the mobile payments ecosystem is a complex one, making it a challenge to develop a successful mobile payment service. Providers need to focus on the context and develop mobile payment services that best suit the user needs to seize the opportunity.

AFRICA & MIDDLE EAST

ROSHAN'S M-PAISA:
AN AFGHAN SUCCESS STORY IN MOBILE FINANCIAL SERVICES

Roshan is Afghanistan's leading telecommunications provider and the market leader with over 5 million active subscribers and a network that covers over 230 cities and towns in all of the country's 34 provinces.

As a benchmark emerging market telecommunications company that focuses on its customers, we are proud to have played a leading role in bringing the benefits of wireless telecommunications to Afghanistan, while contributing to the nation's reconstruction and economic development.

Introduced by Roshan in 2008 in partnership with Vodafone, M-Paisa is Afghanistan's first mobile money transfer product. Afghanistan was the first country after Kenya to launch this innovative service. M-Paisa builds on Roshan's position as an innovator in the market, bringing unique products and services that serve the needs of the Afghan population.

Introduction

When Roshan, Afghanistan's leading total telecommunications provider, entered the country in 2003, our mission was not only to build a successful business in one of the most challenging environments in the world, but also to be a catalyst for change, harnessing the power of mobile technology to bridge gaps in the nation's infrastructure, decimated by decades of war and under-investment. This commitment to playing a positive role in the reconstruction and socio-economic development of Afghanistan is part of our corporate heritage, bequeathed to us by the Aga Khan Fund for Economic Development (AKFED), our majority shareholder and part of the Aga Khan Development Network (AKDN).

Overcoming seemingly insurmountable challenges, Roshan has built the largest, state-of-the-art mobile network in Afghanistan, spanning 230 cities and towns in all of Afghanistan's 34 provinces, and connecting nearly six million Afghans to each other and to the world. We have invested over $500 million in Afghanistan to date and are the country's single largest investor and taxpayer, contributing approximately 5 percent of the Afghan government's overall domestic revenue. Roshan directly employs more than 1,200 people, 5 percent of whom are
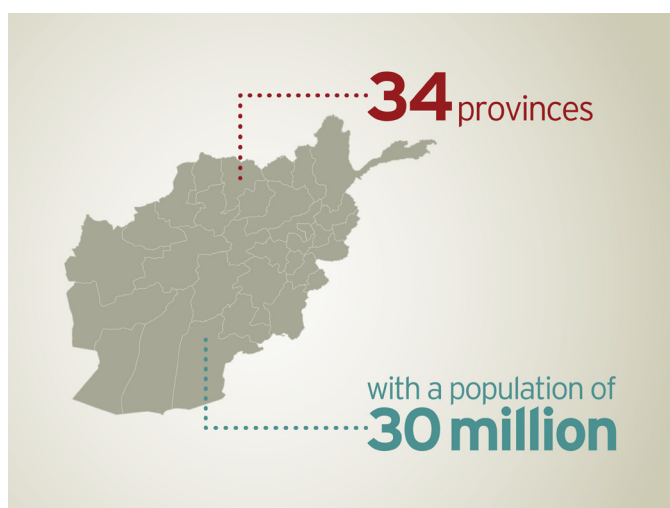
women, and provides indirect employment to more than 40,000 people

Innovation, technology and unwavering commitment have been the hallmarks of our success in Afghanistan and are the attributes we have brought to bear in tackling the infrastructure gaps that continue to inhibit the country's development. Few of those gaps have as much impact on Afghanistan's economic potential as the lack of access to modern financial services. In a country of over 30 million people, 95 percent of the population has no regular access to a bank account. Across the entire country, there are 17 banks with a total of 300 branches (most of which are in major cities)
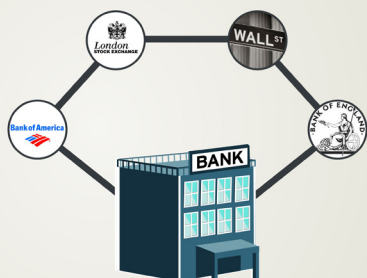
and approximately 50 ATMs; not nearly sufficient for the fast-growing population, projected to reach 50 million people by 2050. Trust in the traditional banking system in Afghanistan is extremely strained given the country's instability over the past 30 years and ongoing concerns about corruption and security. Basic financial transactions, the lifeblood of commerce and household financial management, are inhibited by the inefficiency, lack of safety and potential for abuse of an over-reliance on cash.

Roshan is constantly seeking new opportunities to enlist the power of mobile technology to address development challenges in a commercially viable manner. We saw the opportunity to leverage our state-of-the-art mobile phone technology and robust network to address these gaps in Afghanistan's financial infrastructure, by providing the mechanism for safe and transparent financial solutions accessible to virtually all Afghans.

With the launch of M-Paisa in 2008, Roshan became the first company to bring mobile financial services to the people of Afghanistan; knowing the potential of mobile money to boost economic growth in Afghanistan, especially in the remote and rural areas of the country.

Roshan launched M-Paisa using Vodafone technology

from one of the world's leading international mobile communications groups. M-Paisa is part of the Vodafone Money Transfer Family, which has over 22 million customers in 7 countries, and has received widespread international acclaim, winning the GSMA award for "Best Mobile Money Service for the Unbanked" and the Telecom World Asia award for "Best Community Telecom Project" in 2011.

M-Paisa, Afghanistan's first mobile "wallet", allows users to conduct a range of financial transactions in a safe, convenient and transparent way. Using M-Paisa, customers have access directly from their mobile phones to deposit and withdraw cash, purchase items from merchants, get and pay loans, buy airtime, receive salary on time and in full, and pay bills from the convenience of their homes.

Afghan National Police Pilot Project

To demonstrate the potential of M-Paisa and build confidence in and awareness of the benefits of mobile money, we began with a pilot project to provide salary disbursement services to the Afghan National Police (ANP) through M-Paisa.

Over 100 ANP officers received their salaries as part of the pilot, through M-Paisa in the provinces of Wardak and Khost, some of the most volatile areas in the country. Traditionally, cash salaries were passed through multiple hands, increasing the odds of theft, skimming, and personal security risks. Furthermore, it was also difficult for officers to leave their post to deliver the much needed cash funds to their families. Without funds, families could sometimes be left without basic provisions for weeks.

The police officers were quite surprised to learn what they were earning compared to previous months when they were paid in cash. We cannot underestimate the impact an extra $50 can have on a family struggling to survive in Afghanistan, when a police officer's average income is only $200. In addition, officers can visit an authorized M-Paisa agent to

withdraw their salary at any time and can send their salaries instantly to family members through the mobile phone, eliminating the need to assume the risk of traveling home.

What started as a pilot project with the ANP has grown into a nationwide mobile commerce program that addresses the needs of over one million enabled M-Paisa customers, from salary disbursement to buying goods and airtime to paying bills. Any Afghan with a mobile phone now has access to financial services, in a safe, regulated manner, through Roshan's M-Paisa.

Roshan's M-Paisa was the first mobile money service in Afghanistan to receive an Electronic Money Institute (EMI) license from the Central Bank of Afghanistan. The official licensing process was introduced to better serve the growing demand for mobile money services in Afghanistan; a growing demand we are proud to say was sparked by Roshan.

To better serve our nearly six million customers and expand our network's reach, Roshan has expanded the reach of M-Paisa internationally through a strategic partnership with Western Union, a leader in global payment services. This collaboration between M-Paisa and Western Union Mobile Money Transfer service allows Afghans living outside the country to send money directly from a Western Union agent to a M-Paisa mobile wallet instantly.

M-Paisa customers simply deposit money at any Western Union branch around the world. Through Western Union's worldwide facilities and trusted name, funds are transferred directly and instantly into the M-Paisa mobile wallet. M-Paisa customers receive Western Union Money Transfer transactions from around the world directly in their mobile wallet accounts.

Together, Roshan and Western Union are enabling distant families to be connected and, for the first time, are making financial inclusion a reality for the almost 95 percent of Afghans who do not have access to traditional financial services.

Financial Inclusion

Recently, we hit a milestone figure of one million enabled M-Paisa customers since the service was launched in 2008. Roshan attributes the rapid growth of M-Paisa's customer base in Afghanistan to the safety, security, speed and convenience of the mobile money service.

This landmark shows just how far we have come towards the goal of eliminating the common financial barriers that exist in Afghanistan. Not only is M-Paisa a significant development for our customers who are looking for a means to conduct financial transactions, but it is also serving as a catalyst for Afghanistan's economy by facilitating business transactions, loan repayments, and the movement of money nationwide.

M-Paisa demonstrates Roshan's commitment to providing innovative solutions that address real customer needs. These are some of the significant advantages for our customers through M-Paisa:

• Funds are at the full disposal of the customer to send, save, spend or withdraw. Customers can send money to family or friends, receive funds instantly, easily and from anywhere, with no need to travel long distances (which was often a concern given Afghanistan's security situation).

• Customers can purchase more airtime for themselves or family and friends with ease, from wherever they are, using their M-Paisa wallet.

• Microfinance clients from First Microfinance Bank (FMFB),

Hope for Life and Mutahid can now repay their loans withouthaving to visit a physical branch, and have access to financial services available through M-Paisa.

• Customers can use M-Paisa to pay bills or make purchases at a growing number of retail outlets, including Kam Air (Afghanistan's leading private airline), Kamran Pizza, Faisal Business Centre, Wakaan Café and Metro Supermarket.

• Thousands of Afghans already receive their salary payments through M-Paisa, instantly, on-time and in full.

• By using M-Paisa, businesses can lower administration costs, provide an added level of service, limit cash on premise and pass on additional savings to their customers.

• By reducing the need for physical cash and providing a safe and secure method for common financial transactions, M-Paisa reduces business costs, reduces opportunities for corruption and helps families safely manage their finances.

The service facilitates the transfer of funds using a mobile phone through Short Message Service (SMS) and an Interactive Voice Response (IVR) system. The IVR based menu is available to customers in Dari, Pashto and English, an important feature in Afghanistan where 70% of the population is illiterate.

Fund transfers are instantaneous and money received can be accessed through any authorized M-Paisa agent nationwide, even in the most remote areas of the country. This allows for the extension of financial services to the mass unbanked population.

Conclusion

M-Paisa will continue to complement and extend the reach of banks and microfinance institutions, while serving as a catalyst for development, commerce and greater access for millions of Afghans to financial services. Receiving the first

EMI license for M-Paisa exemplifies our pioneering role in building the country's financial infrastructure.

By bridging gaps in Afghanistan's financial infrastructure, Roshan is contributing to the economic development of the country, encouraging commerce, facilitating savings, enhancing the security of financial transactions and assisting in the reduction of corruption through transparent movement of funds.

We remain deeply committed to the ongoing goal of fostering positive change in Afghanistan and improving the lives of our customers and all Afghans. Through Roshan's M-Paisa, that commitment has now become a reality.

INITIATIVES: AFRICA & MIDDLE EAST

Warid Pesa

Name	Warid Pesa
Website	http://waridtel.co.ug
Description	Warid Pesa which enables customers in Uganda to perform e-money transactions, pay for goods and services as well as settle accounts.
Companies involved	Obopay, Warid Telecom
Country	Uganda
Types of services provided	Mobile payments, mobile banking, mobile money transfers
Other details	The Warid Pesa mobile banking service is based on Obopay's platform and mobile money service and it can be used on any mobile device. The new service allows customers to perform person-to-person and person-to merchant mobile money transfers, top up prepaid mobile phones and view account statements.

Quick

Name	Quick
Description	Quick enables consumers in Tanzania to receive money from abroad. This service allows friends and family members to visit one of more than 108,000 participating Western Union Agent locations in 65 countries worldwide and send money directly into the mobile wallets of any Vodacom M-Pesa subscriber in Tanzania.
Companies involved	Western Union, Vodacom Tanzania
Country	Tanzania
Types of services provided	Mobile remittance
Other details	Receivers can use the funds to pay bills, top up airtime and cash out at more than 15,000 M-Pesa agents across the country. Vodacom M-Pesa provides its customers with a way to pay for services such as utility bills, airtime recharge for prepaid, taxes, long-distance bus fares and other services.

ZimSwitch Ready

Name	ZimSwitch Ready
Description	ZimSwitch Ready allows users to employ their mobile devices to send money to another customer's handset. Subscribed clients can use their mobile phones to pay for goods and services, deposit and withdraw money or transfer money to any ZimSwitch Ready bank account or to an unbanked mobile phone user across Zimbabwe's three GSM networks - Econet, NetOne and Telecel.
Companies involved	Telcel, ZimSwitch Mobile
Country	Zimbabwe
Types of services provided	Mobile purchases, mobile money transfers
Other details	With ZimSwitch Ready, users can also use their handsets to obtain bank balances and mini bank statements for the last five transactions.

ChamsMobile

Name	ChamsMobile
Description	The ChamsMobile service is set to enable Nigerians to conduct banking transactions using their mobile phones, such as transferring money from their bank accounts into their virtual account.
Companies involved	ChamsMobile, Skye Bank, Bancore
Country	Nigeria
Types of services provided	Mobile money transfers
Other details	The offering is a virtual account that interfaces with traditional payment switches or bank accounts.

RESTORE TRUST
AND BECOME PART OF LIFE

Roger Peverelli and Reggy de Feniks are the authors of international bestseller *'Reinventing Financial Services"*.

What consumers expect from future banks and insurers', the first book on the future of financial services that puts customers at center stage. We asked them to share their vision on the future of mobile banking.

Does the mobile device, and in particular the ever-more-sophisticated smart phone, have the potential to reshape the retail banking ecosystem?

"It will. Or better; it already does. But on a much different level that perhaps most people in the industry think.

In our book 'Reinventing Financial Services' we outlined the six most important consumer trends that set the stage for the future and that financial companies should heed. One of the trends is the changed relationship between customers and financial institutions, the trust issue. In our view mobile services are among the most powerful instruments we have to restore trust.

We researched what drives trust and we found that the basic daily provision of services determines no less than 40% of trust. Morality only accounted for 2.5%.

At first glance this seems strange, but it is not. According to Pablo Cardona and Wei He of IESE Business School in Spain trust is the willingness to be vulnerable to another person, based on positive expectations about the other person's intentions and behavior. These expectations are the result of direct or indirect experience with the other person, past interactions or personal observations of how

that person behaves. Trust increases through a series of such positive experiences interactions and observations.

In other words: the frequency and added value of interaction between customer and bank dictate the pace of growth in trust.

Reality is that in Western countries people rarely visit their bank branch anymore. A lot of branches see 20 customers per day, at most. New research shows that visits to the web sites of most major Western banks outnumber branch visits by a factor of 50 to 100. And we now see that apps from banks are used much more often by customers than they login on their bank's website. Customers that use ABN AMRO's app access the bank no less than 11 times more often than they did via their computer. The contact frequency and added value banks can offer with mobile are therefore keys to restore and expand trust.

Mobile is also so much in sync with the other key consumer trends that we identified.

The quest for transparency and simplicity – the second of the six key trends - is another reason that mobile is of the utmost importance.

Again taking our favorite ABN AMRO app as an example: To access a bank account via a laptop takes 1 minute and 5 steps. Via the mobile app it takes only 10 seconds and 2 steps. This simplicity enforces the perception of being in control – exactly what we like to be.

In transparency and simplicity lies the risk that products from different competitors start to look alike, resulting in commoditization and competitive pricing, which in turn put pressure on margins. The only way for a bank to escape this is to combine transparency and simplicity with specific value-added services and a superior customer experience that differentiates it from the competition. Given the contact intensity, mobile plays a crucial role.

Consumers become more and more self-directed; with mobile, banks can provide tools to empower these self directed customers wherever they are – just to name one more trend.

The six trends we identified set the design imperatives for the successful financial company of the future: how will consumers' needs change in the next five years? What makes consumers tick? And how should we respond to this? Mobile will play a crucial role in tapping into every single trend. Financial institutions should be more aware of this and use the trends as points of departure and design

principles for the mobile strategy and actual applications."

How are banks taking advantage of the growing market need for money movement via mobile devices?
"An important motive for banks to enter mobile payments is an inside-out reason; the costs of cash. Cash is expensive: it is dirty and hard to handle. Even in many developed countries and in emerging economies such as Russia and Turkey cash still plays an obvious, natural role in everyday life; because of cultural issues, trust or just old habits.

At the end of the day we need people to break away from these old habits and get them to use alternative payment methods just because it makes so much sense. Old habits are hard to break, but it is possible. The challenge is to identify one big reason for people to switch - rational or emotional - and hammer it home. What are triggers and barriers to move to mobile payments? What are the deep true consumer insights? And how can we turn these insights into a winning proposition?

Over the last few years we have seen an abundance of initiatives in mobile payments. For instance initiatives to bank the unbanked such as Smart Money and G-Cash in the Philippines, Wizzit in South Africa, M-Pesa in Kenya and Yoban'tel in Senegal (an initiative of Société Générale, Obopay and Crédit Mutual du Sénégal).

With PayPal, you can 'bump' your smart phone to your friend's smart phone, to instantly pay, your share of the restaurant bill, for example. In 2009 PayPal processed just $141 million in mobile payments, according to PayPal mobile vice president David Marcus in an interview with VentureBeat. Last year that jumped to $4 billion, and PayPal projected that will increase to $7 billion in 2012 In France, customers of Credit Agricole bump with Kwixo.

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And last but not least we have seen the introductions of concepts like Google Wallet and ISIS: one swipe on your mobile phone and the new pair of designer shoes are paid for. It just couldn't be easier ...

Right, and that's where there is a potential danger.

To explain this danger, we need to sidestep to 'the psychology of money' and to the results of research in this field by our colleague Valborg Korthals Altes.

The short version is that when you are buying things, the brain is constantly weighing the pain against the expected reward. When you accidently bump your knee, a specific region of the brain becomes active. The same kind of brain activity occurs when you spend money. The brain experiences spending money as 'pain', as research by Knutson has shown.

When the price causes the pain to be higher than the expected reward, the sale is off. When activity is higher in the reward center of the brain than in the pain center, the feeling of expectation and satisfaction 'wins', and you will be more inclined to purchase the product.

The more a consumer is confronted with price-factors, the more brain-pain is stimulated. It also works the other way around: when the association with money goes away, the pain

disappears. For example: in a restaurant people are more inclined to order a pricier item on the menu when there are no currency signs in front of the price.

The way a consumer's brain experiences pain and reward can be brought in connection to the development of our payment methods.

Once we paid in metal coins and paper money: the most direct money-experience. Spending money could be felt, literally. When using a Maestro card, the association with spending money, and therefore with pain, is much less than with cash.

With credit cards, the gap is widened even further. In the United States the credit card's influence is significant. You buy now, and pay a certain amount every month to pay off your debts. Paying later means the pain is delayed. Besides, with such use of the credit card, the current check balance is irrelevant.

Because the emotional brain is driven by instant satisfaction, consumers are inclined to give in to their impulses. The pain may still be felt, but not strong enough to persuade consumers to act sensibly.
Paying by smart phone will move consumers further away from the association with spending money, lowering the pain threshold even more.

For a lot of consumers the smart phone has a highly positive emotional value, because it is a part of their social life, and it signifies the identity of its owner.

Research in de United States shows that stimuli from Apple, such as the iPhone, induces in Apple-fans the same kind of brain-activity religious people show when confronted with images of their religion. As a consequence, each time the smart phone is used, including paying, is potentially registered in the brain as a reward.

Google Wallet's mission is to enable retailers to sell easier, and more. Therefore Google Wallet will tempt consumers in various ways into impulse buying, e.g. through on-the-spot promotions and discounts. Because of the lowered pain threshold unnecessary purchases, higher spending and larger debts are around the corner. In this day and age, that is not desirable.

Fortunately, smart phones offer banks also a lot of opportunities to help consumers in an agreeable way to control their emotional brains, and their inclination towards instant satisfaction when necessary - through empowerment. Some banks are already offering this. Think of the popular digital budgeting tools. The challenge is to translate this type of empowerment to mobile, make it part of the process. Only then mobile payments won't hurt."

In your opinion, which value-added services should banks focus on?

"The way most financial services firms are exploring mobile, makes you think you've travelled back to 1995, to the early days of the internet. The first applications we saw back then on the internet were typical examples of what Marshall McLuhan called the "Horseless carriage syndrome". The first car looked like a carriage without a horse. When we try to grasp a new medium, we always do so within the confines of a medium we already know.

Financial institutions are still in this stage. They are currently replicating existing regular processes to the mobile channel; enabling customers to conduct their financial transactions, or filling out a claims form. Don't get us wrong: we think this is good. But we feel – like everyone – that so much more is possible. We really need to think beyond the horseless carriage.

Phones are not phones anymore. Not that long ago a phone's purpose was to make calls. With the arrival of the smart phone that notion has become outdated. Calling and sending text messages only makes up for 10% of the time a smart phone is used. Research by VODW shows what the other 90% is used for: 'to wake up', 'to make pictures', 'to boil an egg', 'to check Facebook', 'to keep the kids busy with movies and games' - all kinds of uses that have next to nothing to do with the original purpose of a phone.

One third of young women check Facebook before brushing their teeth or going to the toilet in the mornings according to a study of American social media users by Oxygen Media. This research reveals women aged 18 to 34 are becoming increasingly addicted; 37 per cent have fallen asleep with their phones in their hands.

The smart phone has become an essential part of life; the first thing you look at in the morning, and the last thing you check before going to sleep.

Understanding what a smart phone means to your customer, and how it relates to your brand, product, or service, should be the starting point for real consumer insights. It is important to look beyond the core product. The context in which the product is used should be taken into account, as well as situations in which it plays a part – since this provides much more inspiration. For a suntan lotion manufacturer it would be the beach, for insurers it would be situations that put consumers at risk, and for a bank it would be the moment a consumer spends money. This will yield consumer insights and opportunities to help in specific instances in your customers' lives.

Every bank or insurer will do this in their own way. But from what we've seen so far in mobile services, we think there is one denominator for success: helping.

For many, the smart phone has become the number one device to aid in all activities by taking care of things faster and easier, and especially to provide insights that are specific for the place and situation they are in. The consumer should be given insights, information, and opportunities that help him in specific moments or places during his day.

A fine example, in its simplicity, is Nivea's sun tan app. Using the smart phone's GPS functionality, Nivea recognizes at which beach you are, the weather conditions at that place, and can tell you exactly how to protect yourself from the sun, what factor you require, and when it is advisable to get out of the sun, and into the shade.

American general insurer State Farm realized it had hardly any contact with its customers. Once a year it sent out a notification that the premium had gone up – not exactly a welcome message. To address that, State Farm developed a simple app that enables customers to view weather and road conditions and forecasts daily on their smart phone. In a simple way it ensures one daily positive contact, instead of a yearly negative one.

In Germany so-called 'Frauenparkplätze' have emerged, parking garages especially for women. A car insurance company is currently developing an app that will guide customers to such safe places.

What all these applications share is their customer centricity and customer knowledge focus, rather than product centricity and product expertise.

Financial institutions can now always accompany their customers wherever they go in the real world. Mobile phones offer contact points not only through their checking and savings accounts, but also through the possibility of offering additional services that really support their everyday life.

Mobile phones give financial service providers the opportunity to be close to their customers and even become part of people's lives, right where it matters the most."

Will mobile banking lead the race to transform the customer experience for retail banks?

"A 2011 worldwide TNS study shows that already at that point in time more mobile phone subscriptions existed (5.3 billion) than bank accounts (1.6 billion) and PCs in use (1.1 billion) together. According to Forrester, there will be 1 billion smartphone customers by 2016.

Estimates for people worldwide accessing financial services by mobile vary between 500 million and 1 billion people by 2015.

Apart from the penetration we already mentioned the huge difference in frequency of use: ABN AMRO mobile banking app users that log in to their account 11 times more often than they used to do via their desktop or laptop computer.
At Finovate 2012 it was mentioned that 30% of banking app users at Rabobank replaced online banking by their mobile app for all their payments.

Clearly we see a shift from online to mobile. And in countries that are lagging when it comes to online banking we can even imagine that mobile banking will overtake online banking as the mainstream channel if online has never existed.

Another perspective is the added value that is being offered via the mobile device.

The current account and everything that goes with it - like checking your balance, checking if a payment is received or paying invoices – is currently the most important in the relationship of a customer with his / her bank.

We mentioned the growing importance we envision of all sort of tools for daily empowerment in the context of financial services. According to Strands, developer of personal finance tools for among others Bank of Montreal, ING Group and BBVA, the first generation of digital budget tools is already used around 10 times per month on average. And we are still scratching the surface.

We think the core of the relationship with a bank will shift: from online and the current account to mobile and tools for daily empowerment. Obviously that will lead to new exciting challenges, but for sure it will help to interact much more frequently, to learn more about customers, to restore trust and to create new added value."

Roger Peverelli (49) is a partner at VODW, a leading customer focused strategy consultancy based in The Netherlands, and specialised in strategy, innovation and customer centricity in financial services. Throughout his career he concluded assignments for a number of blue chip financial services companies across the globe,

in b2b and b2c life and general insurance, in retail, private and commercial banking. Roger has worked in virtually every European country, the Americas, the Middle East and Asia.
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Reggy de Feniks (44) is founding partner at 9senses, strategy and marketing consultants, based in Barcelona, Spain. He holds 22 years of international business experience, amongst others as managing consultant at VODW, mostly in banking and insurance with specific expertise in strategic partnerships, new proposition development, market entry, sales strategy and building customer centric organisations. He successfully concluded assignments for multinationals in over 40 countries across the globe.

Reggy has an MBA background (Rotterdam, Michigan and Wharton). He is frequently speaker at international conferences and has given classes and workshops at MBAs in The Netherlands and Spain.
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'Reinventing Financial Services. What consumers expect from future banks and insurers' is published by Financial Times / Prentice Hall.

The English language edition is now in its fifth print. In the last months editions in Spanish, French and Russian were published. In the coming months four other will follow: in German, Portuguese (for Brazil), Italian and Korean.
The book includes over 50 interviews with industry executives and thought leaders and over 100 best practices from across the globe.
www.reinventingfinancialservices.com

NORTH &
LATIN AMERICA

THE OPPORTUNITY OF MOBILE PAYMENTS

By Ron Hirson, President & Co-Founder, BOKU

BOKU was born out of a desire to create a frictionless payment system allowing a mobile phone number to be used as a safe and secure payment instrument. In 2009, we partnered with mobile operators around the world to enable their subscribers to purchase virtual goods simply using their mobile number. Within 2 years, we grew to become the largest global mobile payments network servicing 66 countries through more than 240 carrier partners, connected to merchants such as Facebook, Disney, EA, and Zynga.

Over recent years, I've expounded on the incredible opportunity presented by NFC and other mobile payments technologies to enhance the payments experience using the power of your mobile phone. I have, however, maintained a couple of important caveats:

• 	NFC technology, in and of itself, is not compelling enough to change consumer behavior away from credit cards and cash.
• 	Credit cards have an install base with consumers and merchants that NFC will not see for years.

Certainly there are an increasing number of NFC enabled phones on the market. Although, according to The Yankee Group, less than 1% of all phones shipped in 2011 included NFC. When you consider that there are more than 6 billion mobile phone subscribers in the world, there is obviously some significant ground left to cover with consumers. What about merchant acceptance? Recent figures from Crone Consulting show that, in the United States, there are more than 6 million merchants that accept "traditional" payment methods, while only 150,000 are equipped to accept NFC payments. Of course, this isn't terribly surprising, as upgrading merchants' terminals to accept NFC (merchant reterminalization) is a lengthy and expensive process that includes installation of new hardware and software, as well as the retraining of all staff on how to use the new checkout system.

So, if you think of consumers and merchants as two cir-cles in a Venn Diagram, with the intersection representing the circumstance when a consumer with an NFC enabled device happens to find a merchant that accepts NFC payments, you can imagine that this intersection is incredibly small. All of this isn't meant to say "NFC will never change the way we pay" – simply that it isn't here yet.

Given both the incredible potential presented by mobile payments at the point of sale and the significant adoption challenges facing the technology, we are left with a question: "Why are we waiting for so many friction-laden events to happen?" or, put another way, "Why are we waiting on NFC to deliver mobile payments with real value to merchants and customers?"

Smarter phones. Smarter cards.
No matter how long it takes to realize the potential of NFC, for the foreseeable future we know that most consumers are going to leave the house with 2 things: their phones and their wallets (likely with at least one card in them). This creates an incredible opportunity to completely change the customer experience of the cardholder by creating an immediate interaction point between consumer, merchant, and a host of value adding apps. The true power of mobile payments lies not in separating the card from the phone, replacing the card with the phone, or letting the card live inside the phone, but rather in using the apps, SMS, GPS, HTML5/web capabilities, and a host of other mobile technologies to enrich the consumer experience no matter how they choose to pay.

When credit cards were first introduced, they were seen as "cash killers" and sold to customers on the idea that they would no longer need to carry around clunky cash or watch a teller slowly count out correct change. For merchants, the original value proposition of credit cards was that they would increase the number of customers who would pay and the transactions made by consumers. Despite the fact that there are over 30,000,000 credit card acceptance locations and despite its value, the card is seen as something of a "tax" to merchants, and governments are even stepping in to decrease this "tax".

How do we change this dynamic and restore the value proposition of cards for merchants and customers by using the technology embedded in phones? We examined this problem closely here at BOKU and used a few guiding principles in developing our own real-world mobile payments solution: BOKU Accounts. Those basic principles are below:

Deliver real value, above & beyond tap vs. swipe
The phone in your pocket can do so much to change the way consumers and merchants interact and communicate with each other before, during, and after the purchase. From giving consumers real-time spending alerts and budget controls to allowing merchants to create highly targeted, even geo-fenced marketing campaigns that send deals and rewards directly to a mobile device that consumers look at 150 times per day on average (Nokia - Mind-Trek 2010), there is no limit to what the future may hold for mobile payments. We actually included all of these value-added services in our Accounts product, with many more in development.

Don't force the world to reterminalize
A critical characteristic of any merchant offer platform in this system is that it must require no hardware, software or infrastructure modifications at either the merchant POS or the acquirers' processing systems. With less than 1% of all merchants locations currently accepting NFC payments, building a mobile payments solution that requires NFC acceptance is a long, expensive uphill battle. We addressed this problem in our Accounts product by riding on existing payment rails and choosing MasterCard as a preferred partner. It just works on day one no matter where you are or how you pay. By combining NFC technology with an established, card-based payment system, we set out to create an account that works today and will still work with any mobile technology that comes in the future.

Go to the customer, don't force them to come to you
By "go to the customer", we really mean "work with partners to leverage existing user bases". Whether that partner is a mobile carrier or a bank with hundreds of millions of subscribers, it will always be preferable to work with that partner and give them an easy solution that they can immediately distribute to every one of their customers rather than forcing customers to pick up a new phone, a new case, a new app, or any other high-friction behavior in order to use your service.

The Bottom Line
The payments industry is witnessing innovation, and in some cases creative destruction, to an extent that is greater than in the previous 10 years. Change is coming rapidly and, as is the case with most products and services, delivering real value to merchants and their customers must be the primary focus (offers, control, communication, etc.). As an industry, we can and should be proactive in bringing the value of mobile payments into every transaction today, not 5 years from now. The tools, the networks, and the customers are already there, we just need to tap into what's here while still building for what's coming to deliver the best payments experience now and 5 years from now.

INITIATIVES: NORTH & LATIN AMERICA

Wanda

Name	Wanda
Description	Wanda is the brand name of a joint venture between MasterCard and Spanish telecommunication services provider Telefonica in a bid to ensure interoperability among the banked and unbanked segments and link the financial and telecommunications sectors in Latin America.
Companies involved	MasterCard, Telefonica
Country	12 countries in Latin America
Types of services provided	Mobile wallet; mobile money transfers; mobile airtime reload; mobile bill payment; mobile retail purchases
Types of technology used	SMS, USSD
Other details	The JV was started in early 2011 and aims to provide mobile financial services in 12 countries in Latin America where Telefonica is represented by the Movistar brand.

Isis Mobile Wallet

Name	Isis Mobile Wallet
Website	http://www.paywithisis.com/
Description	The venture is chartered with building Isis, a national mobile commerce venture. The Isis mobile commerce network will be available to US merchants, banks, payment networks and mobile carriers.
Companies involved	AT&T Mobility, T-Mobile USA, Verizon Wireless
Country	USA
Types of services provided	Mobile wallet services
Types of technology used	NFC
Other details	Visa, MasterCard, Discover and American Express have also teamed up with Isis for m-commerce services. In September 2011 HTC, LG, Motorola Mobility, RIM, Samsung Mobile and Sony Ericsson have also signed up to introduce NFC-enabled mobile devices in conformity with the Isis NFC and technology standards.

Mobuyle

Name	Mobuyle
Website	http://www.heartlandpaymentsystems.com/mobuyle/
Description	The Mobuyle mobile payment service enables merchants to accept credit, debit and gift card payments via iPhone, iPad and iPod touch devices.
Companies involved	Heartland Payment Systems
Country	USA
Types of services provided	Mobile card processing
Types of technology used	WAP / Internet
Other details	Mobuyle can be used by existing Heartland card merchants by downloading the retail app from Apple's App Store and then purchasing a Mobuyle Encrypting Card Reader from Heartland. Merchants plug the reader into their Apple mobile device audio jack and swipe cards to process transactions.

Mobile transportation payment service

Name	Mobile transportation payment service
Website	http://www.njtransit.com
Description	NJ Transit, a US public transportation agency based in New Jersey, has partnered Google Wallet to provide its customers with the option to use their smartphones in order to tap and pay for transportation tickets at selected locations.
Companies involved	NJ TRANSIT, Google Wallet
Country	USA
Types of services provided	Pay for transportation tickets
Types of technology used	NFC
Other details	With Google Wallet, NJ Transit customers can purchase transportation tickets at New York Penn Station, Newark Airport Station and on selected bus routes.

PayPal Here

Name	PayPal Here
Website	https://www.paypal.com/webapps/mpp/credit-card-reader
Description	PayPal Here allows small businesses, service providers and casual sellers to send invoices and accept debit and credit cards, cheques and PayPal payments.
Companies involved	PayPal
Country	USA, Canada, Australia, Hong Kong
Types of services provided	Mobile card processing
Types of technology used	WAP / Internet
Other details	With PayPal Here merchants can accept payments by swiping cards in the card reader, scanning cards and cheques using their phone cameras or manually entering card information into the app. They can also send invoices and set payment terms from the app as well as accept PayPal payments.

Square

Name	Square
Website	https://squareup.com/
Description	Square allows iPhone or iPod Touch users to accept on-the-spot credit or debit card payments. A small device attaches to the audio input jack of the handset and users swipe the card through the device to accept a payment.
Companies involved	Square
Country	USA
Types of services provided	Mobile card processing
Other details	In March 2012, Square has launched a new iPad app with analytics capabilities dubbed Square Register to allow merchants to segment consumer payments data and transactions.

PAYware mobile

Name	PAYware mobile
Website	http://www.paywaremobile.com/en
Description	The PAYware Mobile service provides small businesses with card processing options via the iPhone. The application incorporates VeriFone's card encryption technology, which encrypts each transaction and ensures payment processing.
Companies involved	Verifone
Country	USA, UK, Canada
Types of services provided	Mobile card processing
Other details	The PAYware Mobile service processes all forms of credit transactions including debit cards processed as an online credit purchase. PAYware Mobile also allows users to remotely manage multiple devices from a single administration account.

moneto Wallet

Name	moneto Wallet
Website	http://www.moneto.me/
Description	The moneto iPhone wallet app is powered by MasterCard PayPass technology and linked to a reloadable MasterCard prepaid card in order to enable iPhone users to make purchases with their phone at merchants who accept MasterCard PayPass.
Companies involved	DeviceFidelity, Spring Card
Country	USA
Types of services provided	Mobile purchases, card-to-card and wire-fund transfers
Types of technology used	NFC
Other details	The moneto iPhone wallet app uses an NFC-enabled microSD chip embedded in an iPhone case. Users can launch the moneto app to view their account balance, check transaction history and make in-store purchases with a tap of their iPhone at any PayPass-enabled contactless payments reader at the point of sale.

COMPANY PROFILES

ABN AMRO

Name	ABN AMRO
Website	http://www.abnamro.com/en/index.html
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking services

Accumulate

Name	Accumulate
Website	http://www.accumulate.se/webb/me/index.jsp
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile financial service platform

ACI Worldwide

Name	ACI Worldwide
Website	http://www.aciworldwide.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	online banking services, mobile banking services

Aconite

Name	Aconite
Website	http://www.aconite.net/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	mobile application management and EMV transaction processing services

Admeris Payment Systems

Name	Admeris Payment Systems
Website	http://www.admeris.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	payment processing services, including INTERAC Online, credit card processing, mobile commerce.

Advanced Merchant Solutions

Name	Advanced Merchant Solutions
Website	http://www.merchantanywhere.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payment enabling technology

ADYEN

Name	Adyen
Website	www.adyen.com
Head office	Amsterdam, Simon Carmiggeltstraat 6-50, 1011DJ, Amsterdam
Regional office(s)	London, Paris, Berlin, Boston, San Francisco, Sao Paolo
Geographical presence	Global
Contact details / person	Roelant Prins – info@adyen.com
Company description	Adyen provides a fully outsourced payment solution that helps large international merchants easily accept payments from their customers. Adyen leverages the latest internet technologies to run a highly scalable and cost-effective platform to support all relevant sales channels (including web, mobile and point-of-sale).
Company type	Collecting Payment Service Provider
Market segments	Internet based payment solution to accept payments across all relevant sales channel (web, mobile, pos) on a global basis.
Keywords	Innovation, Multi-Channel, Mobile, Global, Conversion, Fraud control, Internet
Partners	Full in-house end-to-end solution
Initiatives	This unque aspect of Adyen in the market place is recognised by Groupon who have stated: " "Adyen has been instrumental in rolling out our service in over 30 countries so far. We have been adding new countries every few weeks and needed a partner that is able to react quickly to the ever advancing requirements that we have. The Adyen solution enables our customers to be flexible in paying, by adapting to local requirements, which in turn increases our profits and customer retention."
Active since	2006

SERVICES

Types of services provided	Internet payment service provider for web, mobile and pos solutions.
Target transaction size	Large international merchants
Core services	*Multi-channel* Since its inception, Adyen has designed its Internet-based platform as a multi-channel solution. Through the Adyen soution you can accept payments via Web, Mobile, IP-TV as well as Point-of-sale. The beauty of the the Adyen platform is that all features that Adyen offers are made available across the various sales channels a merchant operates. This provides many benefits. *Global reach* One integration with Adyen provides access to a global payment solution. Adyen providess access to over 90 relevant payment methods across Europe, Asia, the USA and Latin America. In addition Adyen connects to over 35 acquiring banks for card processing world wide. This means that independent of the sales channel, Adyen can route payments for merchants to banks across the world that provide the highest service levels and most cost-effective conditions. *Flexibility and continuous innovation* Adyen develops and maintains all its development in-house. As a result of this Adyen is able to do new product releases every 3-4 weeks. This means Adyen can react fast to new developments in the market and develop new features continuously for its client base.
Unique selling points	Innovation, Flexibility, Global reach
Pricing	Highly competitve
Other services	Fraud prevention (incl device fingerprinting), Pay-out serivces, Mobile payment solutions, Conversion analytics

USER EXPERIENCE

Signup and / or activation	n.a.
Transaction initiation	Real-time, webbased
Transaction authorization	Real-time, webbased
Transaction confirmation	Real-time, webbased
Reporting	Various detailed reporting including monthly aggregated reporting on CFO level

TECHNOLOGY

Telecom	Webbased mobile payment pages
Proximity	Webbased mobile payment pages
Mobile applications	Webbased mobile payment pages
App distribution	n.a.
Fraud Measures	Extensive fraud control solution inc device fingerprinting

THE PAYPERS MOBILE GUIDE 2012 BRINGS THE MOBILE ECOSYSTEM AT YOUR FINGERTIPS

Airtel Africa

Name	Airtel Africa
Website	http://www.africa.airtel.com/wps/wcm/connect/africaairtel/Africa
Geographical presence	Middle East/ Africa
Company type	Mobile Network Operator
Types of services provided	mobile banking services, mobile money top-ups, bill payments services

Alfa-Bank

Name	Alfa-Bank
Website	http://alfabank.com/
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile money tranfers, mobile remittances, m-commerce

Alipay

Name	Alipay
Website	http://technode.com/2011/07/09/barcode-pay-alipays-new-mobile-payment-solution/
Geographical presence	Asia-Pacific
Company type	Technology provider (platform)
Types of services provided	online payments, m-payment enabling technology

Ally Bank

Name	Ally Bank
Website	https://www.ally.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	mobile online payments, includes digital goods; m-commerce

Amazon Payments

Name	Amazon Payments
Website	https://payments.amazon.com/sdui/sdui/index.htm
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	mobile online payments, includes digital goods; m-commerce

America Movil

Name	America Movil
Website	http://www.americamovil.com/amx/en
Geographical presence	North/ Latin America
Company type	Mobile Network Operator
Types of services provided	mobile payments services

American Express

Name	American Express
Website	https://www.americanexpress.com/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile wallet; mobile airtime top-up; mobile online payments

Antenna Software

Name	Antenna Software
Website	http://www.antennasoftware.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

Apple

Name	Apple
Website	http://www.apple.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile POS

Apriva

Name	Apriva
Website	http://www.apriva.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile wallet ; mobile POS

Asseco

Name	Asseco
Website	http://asseco.com/
Geographical presence	Europe
Company type	IT Company
Types of services provided	m-payments enabling technology

AT&T

Name	AT&T
Website	http://www.att.com/#fbid=5BXJfIswTE2
Geographical presence	North/ Latin America
Company type	Mobile Network Operator
Types of services provided	mobile payments services

Atos

Name	Atos
Website	http://atos.net/en-us/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payment enabling technology

Australia & New Zealand Banking Group

Name	Australia & New Zealand Banking Group
Website	http://anz.com.au/personal/
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	mobile banking; ap developer

Banco Sabadell

Name	Banco Sabadell
Website	https://www.bancsabadell.com/cs/Satellite/SabAtl/
Geographical presence	Europe
Company type	Bank
Types of services provided	ap developer; mobile banking

Banglalink

Name	Banglalink
Website	http://banglalinkgsm.com/
Geographical presence	Asia-Pacific
Company type	Mobile payments services provider
Types of services provided	mobile wallet; mobile insurance service

Bango

Name	Bango
Website	http://bango.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payment enabling technology

Bank of America

Name	Bank of America
Website	https://www.bankofamerica.com/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile banking

BankServ

Name	BankServ
Website	http://www.bankserv.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile cheque capture; remote deposit capture

Barclaycard

Name	Barclaycard
Website	http://www.barclaycard.co.uk/personal
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking; mobile POS; mobile online payments

Belgacom

Name	Belgacom
Website	http://www.belgacom.be/belgacom/annex/a_splash_languages2.page
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments services

Bharti airtel

Name	Bharti airtel
Website	http://www.bharti.com/wps/wcm/connect/BhartiPortal/bharti/home
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile wallet; mobile banking; mobile online payments; mobile remittance; mobile airtime top-up;

Billeo

Name	Billeo
Website	https://www.billeo.com/
Geographical presence	North/ Latin America
Company type	Mobile billing services provider
Types of services provided	direct carrier billing

Billing Revolution

Name	Billing Revolution
Website	http://www.billingrevolution.com/
Geographical presence	North/ Latin America
Company type	Mobile billing services provider
Types of services provided	mobile online payments; direct carrier billing

Billing Tree

Name	Billing Tree
Website	http://mybillingtree.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	e-invoicing; online payments

BilltoMobile

Name	BilltoMobile
Website	http://www.billtomobile.com/
Geographical presence	North/ Latin America
Company type	Mobile billing services provider
Types of services provided	direct carrier billing

Blackhawk Network

Name	Blackhawk Network
Website	http://www.blackhawknetwork.com/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile online payments, includes digital goods;

Blaze Mobile

Name	Blaze Mobile
Website	http://www.blazemobile.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile wallet

Bluepoint Solutions

Name	Bluepoint Solutions
Website	http://www.bluepointsolutions.com/about/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile banking

BlueVia

Name	BlueVia
Website	https://bluevia.com/en/
Geographical presence	Europe
Company type	Technology provider (platform)
Types of services provided	direct carrier billing

BOKU

Name	BOKU
Website	http://www.boku.com/
Geographical presence	North/ Latin America
Company type	Mobile billing services provider
Types of services provided	direct carrier billing

BookIT Oy

Name	BookIT Oy
Website	http://www.bookit.net/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile payments

Belgacom

Name	Belgacom
Website	http://www.belgacom.be/belgacom/annex/a_splash_languages2.page
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments services

Bouygues Telecom

Name	Bouygues Telecom
Website	http://www.bouyguestelecom.fr/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments services

boxPAY

Name	boxPAY
Website	http://www.boxpay.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile billing

BPC Banking Technologies

Name	BPC Banking Technologies
Website	http://www.bpcbt.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology;

Capgemini

Name	Capgemini
Website	http://www.capgemini.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

CashEdge (a fiserv company)

Name	CashEdge (a fiserv company)
Website	http://www.cashedge.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile money transfers (P2P); invoicing, mobile banking

Cashlog

Name	Cashlog
Website	http://www.cashlog.com/home
Geographical presence	Europe
Company type	Technology provider
Types of services provided	SMS-based mobile payments services

CASSIS International

Name	CASSIS International
Website	http://www.cassis-intl.com/
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	mobile online payments

CellPoint Mobile

Name	CellPoint Mobile
Website	http://www.cellpointmobile.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile banking; mobile online payments

ChamsMobile

Name	ChamsMobile
Website	http://www.chamsplc.com/web/pages/ChamsMobile-Limited.html
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payment enabling technology

CHARGE Anywhere

Name	CHARGE Anywhere
Website	http://www.chargeanywhere.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	mobile online payments; mobile POS; remote deposit capture

Chase

Name	Chase
Website	http://www.chasepaymentech.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	credit and debit card payment services

China Mobile

Name	China Mobile
Website	http://www.chinamobileltd.com/
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile banking

China Telecom

Name	China Telecom
Website	http://en.chinatelecom.com.cn/
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile money transfers, mobile online payments; mobile banking

China Unicom

Name	China Unicom
Website	http://www.chinaunicom.com.hk/en/home/default.html
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile banking; mobile e-commerce

Citi

Name	Citi
Website	http://www.citigroup.com/citi/homepage/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile banking; mobile remittance; mobile airtime top-up;

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INSIGHTS IN THE WORLDWIDE MOBILE PAYMENTS ECOSYSTEM

CHESS iX

engineering the future
CHESS iX

Name	Chess iX
Website	www.chess-ix.com
Head office	Lichtfabriekplein 1, 2031 TE Haarlem, The Netherlands
Geographical presence	Europe
Contact details / person	Jan Laagland, jan.laagland@chess-ix.com, +31 (0)6 55 75 45 70
Company description	Chess iX supports financial institutes and industry to achieve their business goals by creating bespoke multichannel transaction processing software products, fit for use and purpose, whose design and quality make them capable of supporting multi-year business cases in an everchanging world.
Company type	Technology company: platform provider, application developer
Market segments	Financial, Public Transport and Sports & Events
Keywords	Payment, Loyalty, Ticketing, Couponing, Mobile, Internet, NFC, security
Partners	NXP, NPK, Terremark, Execom, Chess Embedded Technology, Chess Payment Technology
Initiatives	Rabobank MijnID proximity payment terminal platform, Connexxion Public Transport Card Product Top-up platform, Equens closed payments platform
Active since	1998

SERVICES

Types of services provided	mobile online payments, includes digital goods; mobile POS; mobile loyalty & couponing mobile money transfers (P2P); mobile remittance; m-payment enabling technology
Target transaction size	All sizes
Core services	IT Consulting, Software Product Development, Application Life Cycle Management, Operations & Support
Unique selling points	Extensive experience in multichannel business critical software development for financial institutes and industry. Proven software building blocks to speed up development at lower costs and higher quality. High tech innovative culture with low overhead and top level commitment to our clients requirements, behaviors and desires.
Pricing	Flexible depending on customers needs and requirements
Other services	Not applicable

USER EXPERIENCE

Signup and / or activation	open web / mobile device / payment account / none
Transaction initiation	Card / QR code / barcode / NFC / POS / mobile number /
Transaction authorization	PIN entry in-app / via mobile device / at the POS / verification code provided via SMS
Transaction confirmation	via mobile device / at the POS / via online account
Reporting	Transaction overview in-app / via bank account / via dedicated online account

TECHNOLOGY

Telecom	SMS / mobile internet / GPRS / UMTS
Proximity	RFID / NFC / (2D) barcode / WIFI
Mobile applications	IOS, Android, HTML5
App distribution	Downloadable / over the air (OTA)
Fraud Measures	SSL, DESfire, SmartMX, etc

ClairMail

Name	ClairMail
Website	http://www.clairmail.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile banking, mobile money transfers (P2P)

Clear2Pay

Name	Clear2Pay
Website	http://www.clear2pay.com/pages/en/index.htm
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

cMoney

Name	cMoney
Website	http://www.cmoney.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile money tranfers; mobile POS; mobile loyalty &couponing

CoCoNet

Name	CoCoNet
Website	http://www.coconet.de/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payment enabling technology

Collis

Name	Collis
Website	http://www.collis.nl/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

Commonwealth Bank of Australia

Name	ChamsMobile
Website	http://www.commbank.com.au/
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	mobile banking

Comviva

Name	Comviva
Website	http://www.comviva.com/
Geographical presence	Asia-Pacific
Company type	Mobile payments services provider
Types of services provided	mobile insurance service; mobile wallet; online gaming service

Consult Hyperion

Name	Consult Hyperion
Website	http://www.chyp.com/
Geographical presence	Europe
Company type	Consulting company
Types of services provided	consultancy services in the field of payments technology

CorFire

Name	CorFire
Website	http://www.corfire.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile commerce;

CPNI

Name	CPNI
Website	http://www.cpni-inc.com/index.php
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile banking; mobile money transfers; m-commerce

Credit Agricole

Name	Credit Agricole
Website	http://www.credit-agricole.fr/
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking; mobile money transfers; mobile online payments; mobile remittance

CreditCall

Name	CreditCall
Website	http://www.creditcall.com/
Geographical presence	Europe
Company type	Mobile payments processor
Types of services provided	credit card processing services

Creova

Name	Creova
Website	http://creova.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile remittance; mobile money transfers; mobile airtime top-up; mobile online payments

CSI Enterprises

Name	CSI Enterprises
Website	http://www.global-fleet.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile online payments; mobile banking

Deutsche Telekom

Name	Deutsche Telekom
Website	http://www.telekom.com/startseite/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	TelekomCloud services; m-payment services; mobile loyalty &couponing

DeviceFidelity

Name	DeviceFidelity
Website	http://www.devicefidelity.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payment enabling technology; mobile wallet

Diebold

Name	Diebold
Website	http://www.diebold.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

Digby

Name	ChamsMobile
Website	http://www.digby.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	m-commerce

Digicel

Name	Digicel
Website	http://www.digicelgroup.com/
Geographical presence	Caribbean, Central America and the Pacific region
Company type	Mobile Network Operator
Types of services provided	mobile wallet; mobile airtime top-ups; mobile money transfers; mobile banking

DigiMo

Name	DigiMo
Website	http://www.digimo.com/
Geographical presence	North/ Latin America
Company type	Technology provider; App developer
Types of services provided	mobile POS; mobile online payments

Dinero Ahora

Name	Dinero Ahora
Website	http://quierodineroahora.com/
Geographical presence	North/ Latin America
Company type	Mobile money transfer company
Types of services provided	mobile money transfers

Discover

Name	Discover
Website	https://www.discover.com/
Geographical presence	North/ Latin America
Company type	Financial services provider
Types of services provided	prepaid cards; mobile money transfers; online payments

Distra

Name	Distra
Website	http://www.distra.com/
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	m-payments enabling technology

DnB NOR

Name	DnB NOR
Website	https://www.dnb.no/en
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking

DIMOCO

Name	DIMOCO Direct Mobile Communications GmbH
Website	www.dimoco.org
Head office	Campus 21, Liebermannstraße A01/405, 2345 Brunn am Gebirge
Regional office(s)	Germany, Slovenia, Switzerland, Croatia, Hungary, Czech Republic, Serbia
Geographical presence	Europe
Contact details / person	Anton Chmelar, Global Sales Mobile Payment, Tel: +43 664 969 90 90, a.chmelar@dimoco.at
Company description	DIMOCO develops, operates and markets a Mobile Messaging and Payment Transaction Hub. With this hub DIMOCO bundles mobile operator connections in the European countries and connections to messaging hubs worldwide. Over these connections DIMOCO provides Mobile Payment aggregators a direct connectivity, mobile Direct-Carrier-Billing (WAP, Web, P-SMS), traffic handling and one/off and subscription models. To ensure a quick and easy connection to the transaction hub DIMOCO offers interfaces to suit the needs of each customer group.
Company type	Payment processor (third-party); Technology company: platform provider, Trusted Services Manager (TSM)
Market segments	digital goods; mobile operator payment
Keywords	DIMOCO, Mobile Operator Payment, Gateway Billing, WAP Billing, Premium SMS, Mobile Transactions, Europe, Digital Goods
Partners	Mobile Network Operators in Europe, other transaction hub provider
Active since	DIMOCO was founded in 2000

SERVICES

Types of services provided	mobile online payments, includes digital goods; direct carrier billing; m-payment enabling technology
Target transaction size	micro
Core services	Mobile Operator Payment Infrastructure: Direct connectivity to Mobile Network Operators, Mobile Direct-Carrier-Billing (WAP/Web/P-SMS), traffic handling through our gateways, various payment models e.g. one/off or subscription models
Unique selling points	Attractive payouts, extensive market know-how, technical support and subscription billing.

USER EXPERIENCE

Signup and / or activation	open web / mobile device
Transaction initiation	other (SMS, WAP, web)
Transaction authorization	via mobile device / verification code provided via SMS / other (WAP billing)
Transaction confirmation	via mobile device
Reporting	via dedicated online account / other (Mobile Operator Invoice,..)

TECHNOLOGY

Telecom	SMS /WAP / mobile internet
Mobile applications	SIM-based

BOOST YOUR MOBILE PAYMENT TRANSACTIONS!

More than 583 million subscribers can be charged via DIMOCO's mobile payment network.
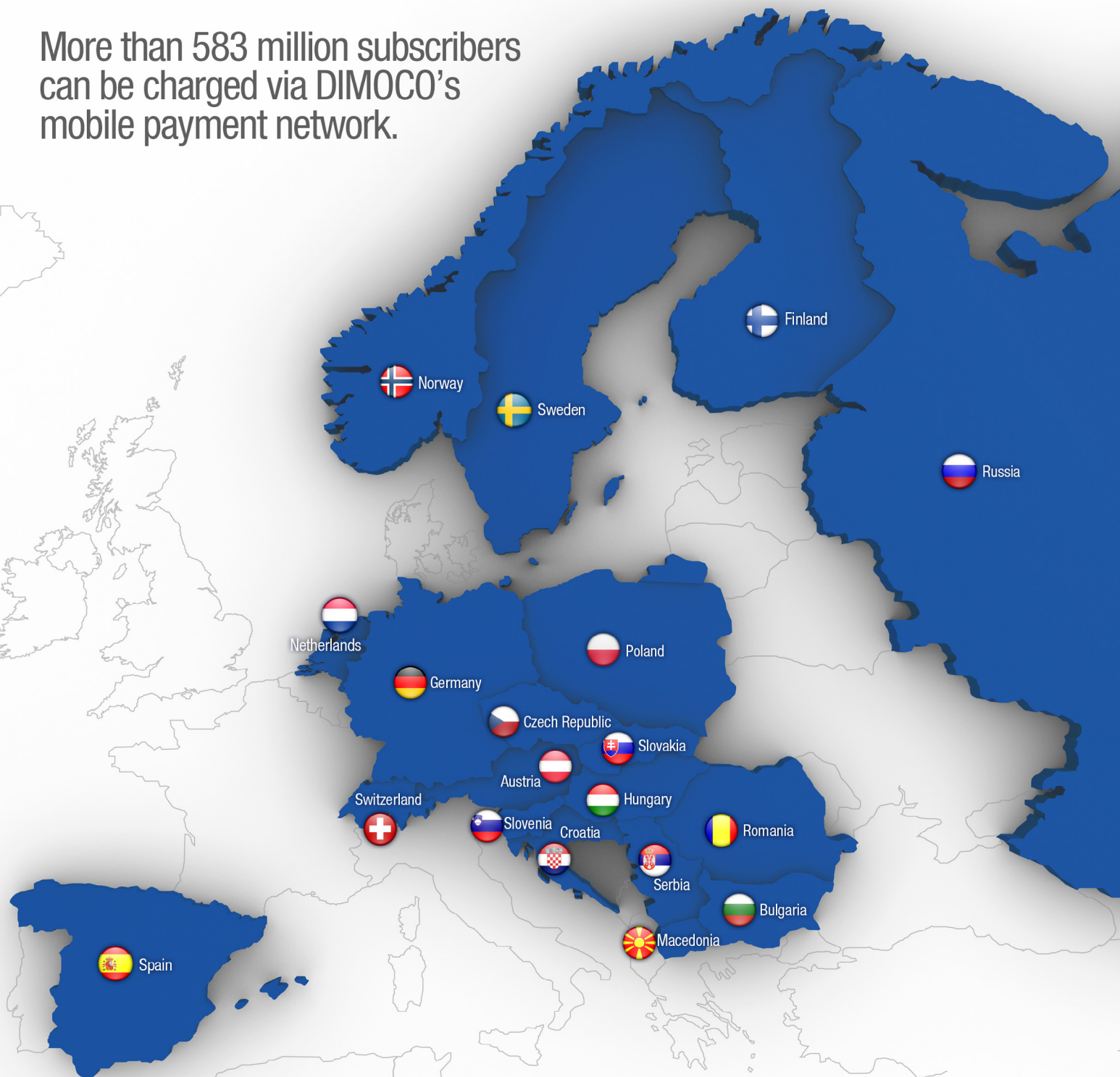
Finland

Norway

Sweden

Russia

Netherlands

Poland

Germany

Czech Republic

Slovakia

Austria

Hungary

Switzerland

Slovenia

Croatia

Romania

Serbia

Bulgaria

Macedonia

Spain

DIMOCO
DIRECT MOBILE COMMUNICATIONS

Dinero Ahora

Name	Dinero Ahora
Website	http://quierodineroahora.com/
Geographical presence	North/ Latin America
Company type	Mobile money transfer company
Types of services provided	mobile money transfers

Discover

Name	Discover
Website	https://www.discover.com/
Geographical presence	North/ Latin America
Company type	Financial services provider
Types of services provided	prepaid cards; mobile money transfers; online payments

Distra

Name	Distra
Website	http://www.distra.com/
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	m-payments enabling technology

DnB NOR

Name	DnB NOR
Website	https://www.dnb.no/en
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking

Equinox Payments

Name	Equinox Payments
Website	http://www.equinoxpayments.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor; App developer
Types of services provided	mobile wallet; mobile POS

Ericsson

Name	Ericsson
Website	http://www.ericsson.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile banking; mobile online payments

EastNets

Name	EastNets
Website	http://www.eastnets.com/Homepage.aspx
Geographical presence	Asia-Pacific
Company type	Mobile payments services provider
Types of services provided	mobile remittances; mobile POS

Econet Wireless

Name	Econet Wireless
Website	http://www.econetwireless.com/
Geographical presence	Middle East/ Africa
Company type	Mobile Network Operator
Types of services provided	mobile wallet

E-Debit

Name	E-Debit
Website	http://www.edebit.co.nz/public/products.aspx
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	m-payment enabling technology

Elavon

Name	Elavon
Website	http://www.elavon.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	mobile POS

eNational Payments

Name	eNational Payments
Website	www.enationalpayments.com
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	mobile payments services

eProcessingNetwork

Name	eProcessingNetwork
Website	http://www.eprocessingnetwork.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	mobile POS; mobile banking

Erply

Name	Erply
Website	http://www.erply.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile POS

Etisalat

Name	Etisalat
Website	http://www.etisalat.ae/index.jsp
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile airtime top-up; mobile remittance; mobile banking; mobile online payments

Euronet Worldwide

Name	Euronet Worldwide
Website	http://www.euronetworldwide.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile remittance; mobile airtime top-up; mobile wallet; mobile POS

Everything Everywhere

Name	Everything Everywhere
Website	http://everythingeverywhere.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile wallet

FI-MOBILE

Name	FI-MOBILE
Website	http://www.fi-mobile.com/
Geographical presence	North/ Latin America
Company type	App developer
Types of services provided	mobile banking

Firethorn

Name	Firethorn
Website	http://www.firethornmobile.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile banking

INDUSTRY INSIGHTS FROM TOP PLAYERS IN THE MOBILE FINANCIAL SERVICES MARKET

First Data

Name	First Data
Website	http://www.firstdata.com/en_us/home.html
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	card-not-present transactions

First National Bank

Name	First National Bank
Website	https://www.fnb.co.za/
Geographical presence	Middle East/ Africa
Company type	Bank
Types of services provided	mobile banking; mobile wallet; e-commerce

FIS

Name	FIS
Website	http://www.fisglobal.com/
Geographical presence	North/ Latin America
Company type	Technology provider; Mobile payments processor
Types of services provided	m-payment enabling technology; mobile banking

Fiserv

Name	Fiserv
Website	http://www.fiserv.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payment enabling technology; Mobile Source Capture application; mobile banking; P2P payment service; online banking service

Flexion

Name	Flexion
Website	http://www.flexion.se/webb/flexion/index.jsp
Geographical presence	Europe
Company type	Technology provider
Types of services provided	billing services

Fortumo

Name	Fortumo
Website	http://fortumo.com/
Geographical presence	Europe
Company type	Technology provider; App developer
Types of services provided	mobile online payments, includes digital goods;direct mobile operator billing services

Foursquare Labs

Name	Foursquare Labs
Website	https://foursquare.com/about/
Geographical presence	North/ Latin America
Company type	Technology developer
Types of services provided	m-payments enabling technology

Fundamo (owned by Visa)

Name	Fundamo (owned by Visa)
Website	http://www.fundamo.com/index.shtml
Geographical presence	Middle East/ Africa
Company type	Technology provider (platform)
Types of services provided	mobile banking services, m-payments enabling technology

Fundtech

Name	Fundtech
Website	http://www.fundtech.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; e-invoicing services

Giesecke & Devrient

Name	Giesecke & Devrient
Website	http://www.gi-de.com/en/index.jsp
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	online banking; banknote processing services; mobile security services

Giftango

Name	Giftango
Website	http://www.giftango.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile wallet

Global Bay Mobile Technologies

Name	Global Bay Mobile Technologies
Website	http://www.firethornmobile.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile banking

GALITT

Name	Galitt
Website	www.galitt.com
Head office	France - 17 route de la Reine - 92100 BOULOGNE
Regional office(s)	Benelux, Canada and USA
Geographical presence	China & India, Singapore, Japan, Korea, Argentina, Brazil, Venezuela, Canada, USA, Spain & Portugal
Contact details / person	Gerard de MOURA - Managing Director - g.demoura@galitt.com
Company description	Galitt offers consulting and services in payment systems and secure electronic transactions. The leading role of Galitt is focused on payment factories reengineering, payment systems Europeanization and innovation in contactless payments and mobile NFC services. This role assumes a consistent partnership, relying on a long term commitment and based on quality and durability of relationships.
Company type	Technology company: service provider; application developer
Market segments	NFC / proximity payments; NFC loyalty / couponing / location-based marketing; Mobile POS payments; TSM implementation
Keywords	Payment - GlobalPlatform - TSM - EMV - NFC - Design - Specifications - Testing
Partners	
Initiatives	1- "Payez Mobile" (www.payezmobile.com - France): providing fonctional and technical specifications, managing technical working groups, supporting cooperation with Payment Schemes, assisting banks for pilots (www.cityzi.fr)
	2- ISIS project (www.paywithisis.com - USA): TSM specifications, SE management, assistance and support
	3- Discover TSMs: TSM security and functional assessments
Active since	Active since 1990 in the card payment industry
	Active since 5 years in the mobile payment technology

SERVICES

Types of services provided	Consulting services; Test tools
Core services	From its original practice in consulting and services dedicated to payment systems and secure electronic transactions, Galitt has developed a strong expertise in mobile payments, being a key player in the major "Payez Mobile" project, which is recognized as a strategic one by the industry.
	The expertise of its consultants has been leveraged by its participation in the GlobalPlatform compliance program, where Galitt provided the first qualified tool to test UICCs. Galitt expertise has also been recognized by major US players in their mobile projects, with a specific focus on TSMs.
Unique selling points	Consulting services combining a strong payment background with an in-depth understanding of OTA and GlobalPlatform technologies.
	Test tools widely recognized by international consortium (EMVCo, GlobalPlatform) and by major Payment Schemes.

Google

Name	Google
Website	http://www.google.com/wallet/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile wallet; direct operator billing;

Handpoint

Name	Handpoint
Website	http://handpoint.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile payments services

Heartland Bank

Name	Heartland Bank
Website	http://www.hbtbank.com/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile banking

Heartland Payment Systems

Name	Heartland Payment Systems
Website	http://www.heartlandpaymentsystems.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	end-to-end encryption solution; mobile payments

Hoeft & Wessel

Name	Hoeft & Wessel
Website	http://www.hoeft-wessel.com/en/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

Hypercom

Name	Hypercom
Website	http://www.hypercomusa.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile POS

GLOBALCOLLECT

Name	GlobalCollect
Website	www.globalcollect.com
Head office	Netherlands, Planetenweg 43-59, 2132 HM Amsterdam
Regional office(s)	Argentina, Singapore, United States
Geographical presence	North America, Latin America, Europe, Middle East, Africa, Asia Pacific
Contact details	Asia Pacific: info@globalcollectapac.com EMEA: info@globalcollect.com Latin America: info@globalcollectlatam.com North America: info@globalcollectusa.com
Company description	GlobalCollect is the world's premier Payment Service Provider of local e-payment solutions for international Customer Not-Present channels such as internet, mobile, mail, and telephone orders. Through a single-interface payment platform, we offer access to an unrivalled portfolio of local, alternative, and international payment methods in almost 200 countries and 170 currencies.
Company type	Payment Service Provider
Market segments	Travel, Retail, Gaming, Financial Services, Social Media, Telcos, Ticketing, Portals, Digital Goods, Publishing, Music, and more
Keywords	international payments, PSP, mobile interface, carrier billing, FX
Partners	GlobalCollect is bank independent and has partnered with leading international financial institutions like First Data, AIB, BNP, HSBC, Wells Fargo, WorldPay, Barclays, Elavon, Euroline, and others.
Initiatives	Upon request
Active since	1994

SERVICES

Types of services provided	mobile online payments, includes digital goods; direct carrier billing;m-payment enabling technology
Target transaction size	All transaction sizes
Core services	Online payment processing; FX; Process transactions in 28 languages; Fraud screening; Full service provider facilitating all back office processes (from payment matching/reconciliation to refund processing and charge backs); Multi-currency fund remittance; Consultancy of local legislation and end consumers' payment preferences.
Unique selling points	GlobalCollect can help your company to increase its international market share significantly by enabling you to provide customers with the ability to pay with their preferred payment method and in a local currency. Our expert consultants and professional services will assist you in determining the best fitting payment mix for your business in all regions.
Pricing	Upon request on a customized basis.
Other services	Full-serve-provider, currency conversion, multi-lingual, 24x7 business support, single-interface connection to our payment platform.

USER EXPERIENCE

Signup and / or activation	No signup or activation needed for processing transactions
Transaction initiation	mobile device / online
Transaction authorization	realtime via mobile device / online
Transaction confirmation	realtime via mobile device / via online account
Reporting	Via dedicated online account and batch files

TECHNOLOGY

Telecom	SMS/ mobile internet
Proximity	None
Mobile applications	n/a
App distribution	n/a
Fraud Measures	GlobalCollect's scalable Fraud Screening Service features a range of integrated fraud reduction tools from renowned partners to maximize transaction safety prior to payment authorization. These include customized business rules, online account validation, neural networks to detect suspicious patterns, IP geolocation data to determine the real-world location of a web visitor, pre-check for fraudulent use of credit cards and more.

a unique perspective on the mobile financial services ecosystem

hyperWALLET

Name	hyperWALLET
Website	http://www.hyperwallet.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	online banking; mobile banking; mobile wallet; mobile money transfers; prepaid card payments; mobile remittance

IBM

Name	IBM
Website	http://www.ibm.com/us/en/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	online banking; mobile commerce; e-commerce

ImpulsePay

Name	ImpulsePay
Website	http://www.impulsepay.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile online payments

Infosys

Name	Infosys
Website	http://www.infosys.com/pages/index.aspx
Geographical presence	Asia-Pacific
Company type	IT Company
Types of services provided	m-payments enabling technology

Ingenico

Name	Ingenico
Website	http://www.ingenico.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile remittance; mobile airtime top-up; mobile POS; mobile online payments, includes digital goods;

Inside Contactless

Name	Inside Contactless
Website	http://www.insidesecure.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

Inside Secure

Name	Inside Secure
Website	http://www.insidesecure.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	contactless chip, contact chip, Near Field Communication (NFC), chip, and contactless reader and coupler services

Intuit

Name	Intuit
Website	http://www.intuit.com/
Geographical presence	North/ Latin America
Company type	Financial management services company
Types of services provided	card payments; mobile payments ; invoice management servies; direct carrier billing

iSend

Name	iSend
Website	http://www.isendonline.com/products/
Geographical presence	North/ Latin America
Company type	Electronic payments services provider
Types of services provided	mobile airtime top-up; international bill pay services; international gift card

Isis

Name	Isis
Website	http://www.paywithisis.com/
Geographical presence	North/ Latin America
Company type	Mobile commerce network
Types of services provided	mobile wallet; mobile commerce

iZettle

Name	iZettle
Website	http://izettle.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	(mobile)online card payments; mobile POS

Jibe Mobile

Name	Jibe Mobile
Website	http://www.jibemobile.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile airtime top-up; bill payment services; mobile online payments

A MUST-HAVE FOR ALL MOBILE PAYMENTS INDUSTRY PROFESSIONALS

Jimdo

Name	Jimdo
Website	http://www.jimdo.com/index.php
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

Jumio

Name	Jumio
Website	https://pay.jumio.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	online card payments

KreditFly

Name	KreditFly
Website	http://blog.kreditfly.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile online payments

La Caixa

Name	La Caixa
Website	http://www.lacaixa.es/
Geographical presence	Europe
Company type	Bank
Types of services provided	contactless ATMs

LG Electronics

Name	LG Electronics
Website	http://www.lg.com/common/index.jsp
Geographical presence	Global
Company type	Technology provider
Types of services provided	m-payments enabling technology

Liqpay

Name	Liqpay
Website	https://liqpay.com/
Geographical presence	Europe
Company type	Technology provider (platform)
Types of services provided	m-payments enabling technology

Lloyds TSB

Name	Lloyds TSB
Website	http://www.lloydstsb.com/
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking

Luottokunta

Name	Luottokunta
Website	http://www.luottokunta.fi/en
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile payments

Lycamoney

Name	Lycamoney
Website	http://www.lycamoney.co.uk/
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile remittances ; mobile banking

Magento

Name	Magento
Website	http://www.magentocommerce.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

MasterCard

Name	MasterCard
Website	http://www.mastercard.com/us/company/en/index.html
Geographical presence	Global
Company type	Mobile payments processor
Types of services provided	mobile online payments, includes digital goods; mobile banking; mobile airtime top-up; bill payment services;

MegaFon

Name	MegaFon
Website	http://english.corp.megafon.ru/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments

LUUP

Name	Luup Ltd.
Website	http://www.luup.com
Head office	Luup Ltd. Millbank Tower, 21-24 Millbank, London SW1P 4QP, UK
Regional office(s)	London, Dubai, Oslo
Geographical presence	Global, with a focus on Europe, Middle East, Africa and Asia
Contact details / person	Georg Fasching, VP Products & Solutions; E-mail: georg.fasching@luup.com Mobile: +44 792 924 0854
Company description	Luup offers bank-grade mobile payment solutions that solve business challenges and give you access to new revenue opportunities and reduced costs. With an award-winning universal platform that can serve both developed and emerging markets, Luup solutions can be securely used from any mobile device, anywhere. Solutions are delivered via a scalable managed service. Luup has developed an ecosystem where all benefit from easy access to an open payments system. As the only global independent mobile payment provider, Luup is uniquely placed for growth in the mobile payment sector.
Company type	Managed service provider, platform provider, service provider, application developer, mobile wallet service provider
Market segments	Mobile money transfers & remittances; mobile corporate payments; branchless banking, mobile commerce
Keywords	Mobile money, mobile payments, mobile payment solutions, mobile banking, mobile wallet, branchless banking, mobile remittances, corporate payments
Partners	Technology partners: Temenos, Microsoft, ControlCircle Product partners: Deutsche Bank, NBAD, Oxigen; for a full list see http://j.mp/wuYtlO
Initiatives	1. Arrow Mobile Service with National Bank of Abu Dhabi 2. Mobile corporate payments in strategic partnership with Deutsche Bank's Global Transaction Banking division 3. Luup ecosystem with a wealth of partners for seamless mobile remittances
Active since	2002

SERVICES

Types of services provided	Mobile wallet, mobile banking, branchless banking, mobile remote payments, bill payments, mobile commerce, mobile corporate payments, mobile money transfers (P2P) mobile remittance, mobile airtime top-up, m-payment enabling technology
Target transaction size	All sizes
Core services	Mobile cash, salary disbursements, remittances, corporate payments - all delivered securely via mobile devices from Luup's live and proven universal platform, which has an integrated core banking engine. Specific services include: customer registration, customer administration, account hosting, user interfaces, reporting, reconciliation, authentication, authorisation, operational support.
Unique selling points	1. An award-winning integrated banking platform 2. A managed service proposition 3. Distinct solutions for Corporate and Retails segments 4. A global mobile remittance ecosystem 5. A universal solution that works anywhere, with any mobile device and on any network
Pricing	Varied pricing models depending on solution and market
Other services	End-user onboarding and adoption services

USER EXPERIENCE

Signup and / or activation	Open web, mobile device, face to face
Transaction initiation	Scan barcode, SMS, mobile application, mobile internet
Transaction authorization	PIN entry in-app, via mobile device, at the POS, verification code provided via SMS one time pin, SMS reply "yes" for remittance to pre-registered beneficiary
Transaction confirmation	Via SMS, mobile internet or mobile application, via online account
Reporting	Transaction overview in-app, via bank account, via web front-end

TECHNOLOGY

Telecom	SMS, WAP, mobile internet, GPRS, UMTS, WIFI
Proximity	(2D) barcode
Mobile applications	Java Mobile Edition, Android, Apple iOS, Windows Phone, Blackberry
App distribution	Direct downloads or downloads through applications markets & stores, over the air (OTA), pre-loaded
Fraud Measures	Transaction monitoring, alerts and limits, pre-registered beneficiaries, mobile security & authentication

a comprehensive overview of players in the worldwide mobile industry

Merchant e-Solutions

Name	Merchant e-Solutions
Website	http://merchante-solutions.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	e-commerce; mobile POS; online card payments

mFoundry

Name	mFoundry
Website	http://www.mfoundry.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile banking services

Micros Systems

Name	Micros Systems
Website	http://www.micros.com/Company/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile POS

Mint Wireless

Name	Mint Wireless
Website	http://www.mnw.com.au/companyprofile/index.html
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	mobile POS; m-payments enabling technology

Mi-Pay

Name	Mi-Pay
Website	http://www.mi-pay.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile banking; mobile airtime top-ups; mobile money transfers; mobile remittances

Misys

Name	Misys
Website	http://www.misys.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile banking

Mitek Systems

Name	Mitek Systems
Website	http://www.miteksystems.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	Remote Deposit Capture; online card payments; m-payments enabling technology

MJV

Name	MJV
Website	http://www.mjv.com.br/sobre
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile wallet

MoBank

Name	MoBank
Website	http://www.mobankgroup.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	mobile banking services, mobile commerce

MobiCart

Name	MobiCart
Website	http://www.mobi-cart.com/index.html
Geographical presence	Europe
Company type	M-commerce startup; App developer
Types of services provided	mobile commerce

Mobifyer

Name	Mobifyer
Website	http://mobifyer.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	NFC-enabled mobile payments; m-payments enabling technology

Mobile Interactive Group

Name	Mobile Interactive Group
Website	http://www.migcan.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	mobile commerce; mobile payments

Mobile Money Network

Name	Mobile Money Network
Website	http://mobilemoneynetwork.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile online payments; m-payments enabling technology

Mobility Payment Solutions

Name	Mobility Payment Solutions
Website	http://mobilityps.com/Home_Page.html
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	credit/debit card payments; mobile money transfers, mobile airtime top-ups

MobiWire

Name	MobiWire
Website	http://mobiwire.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	mobile POS; m-payments enabling technology

Mocapay

Name	Mocapay
Website	https://www.mocapay.com/mpay/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile commerce; mobile POS; mobile wallet

MoneyGram

Name	MoneyGram
Website	https://www.moneygram.com/MGIRewards/Main/index.htm
Geographical presence	Global
Company type	Mobile money transfer company
Types of services provided	global money transfers; online transfer services; mobile money transfers; mobile loyalty &couponing; bill payment services;

Monitise

Name	Monitise
Website	http://www.monitise.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile banking

INSIGHTS INTO THE OPPORTUNITIES & CHALLENGES OF MOBILE PAYMENT TECHNOLOGIES

mopay

Name	mopay
Website	http://de.mopay.com/?wsh=1
Geographical presence	Europe
Company type	Mobile payments services provider; Technology provider
Types of services provided	m-payments enabling technology; direct carrier billing; mobile payments

MoreMagic Solutions

Name	MoreMagic Solutions
Website	http://www.moremagic.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; m-commerce

Movilway

Name	Movilway
Website	http://www.movilway.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; m-commerce

Mozido

Name	Mozido
Website	http://www.mozido.com/
Geographical presence	North/ Latin America
Company type	Financial services provider
Types of services provided	mobile financial services

MTN

Name	MTN
Website	http://www.mtn.com/Pages/Home.aspx
Geographical presence	Middle East/ Africa
Company type	Mobile Network Operator
Types of services provided	mobile remittance; mobile money transfers; mobile banking

MTS

Name	MTS
Website	http://www.mtsgsm.com/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	NFC mobile payment

Multicard

Name	Multicard
Website	http://www.multicard.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; smart card services

Naratte

Name	Naratte
Website	http://www.naratte.com/#techl
Geographical presence	North/ Latin America
Company type	App developer
Types of services provided	mobile online payments, includes digital goods; mobile money transfers; mobile wallet; mobile POS

NCR

Name	NCR
Website	http://www.ncr.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

Net 1 UEPS Technologies

Name	Net 1 UEPS Technologies
Website	http://www.net1.com/home.aspx?ID=1
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile banking

NetSpend

Name	NetSpend
Website	https://www.netspend.com/
Geographical presence	North/ Latin America
Company type	Technology provider; Mobile payments processor; App developer
Types of services provided	m-payments enabling technology; mobile money transfers (P2P)

Network Merchants

Name	Network Merchants
Website	https://www.nmi.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	e-commerce; mobile POS; online card payments

NewNet Communication Technologies

Name	NewNet Communication Technologies
Website	http://www.newnet.com/
Geographical presence	North/ Latin America
Company type	Technology provider; Mobile payments processor
Types of services provided	m-payments enabling technology; e-invoicing services

Nokia

Name	Nokia
Website	http://www.nokia.com/global/about-nokia/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

NTT DoCoMo

Name	NTT DoCoMo
Website	http://www.nttdocomo.com/
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile payments services

Numerica

Name	Numerica
Website	https://www.numericacu.com/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile banking

NuWallet

Name	NuWallet
Website	http://www.nuwallet.com/
Geographical presence	North/ Latin America
Company type	App developer
Types of services provided	mobile wallet; mobile commerce

NXP

Name	NXP
Website	http://www.nxp.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

O2

Name	O2
Website	http://www.o2.co.uk/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile money transfers (P2P); mobile wallet; mobile billing; mobile airtime top-up

Oberthur Technologies

Name	Oberthur Technologies
Website	http://www.oberthur.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

Obopay

Name	Obopay
Website	https://www.obopay.com/index.php
Geographical presence	Asia-Pacific
Company type	Mobile payments services provider; Technology provider
Types of services provided	mobile banking;

OmniPark

Name	OmniPark
Website	http://www.myomnipark.com/
Geographical presence	North/ Latin America
Company type	Parking management services provider
Types of services provided	mobile parking app

On Track Innovations

Name	On Track Innovations
Website	http://www.otiglobal.com/
Geographical presence	North/ Latin America
Company type	Technology providerr
Types of services provided	m-payments enabling technology

One iota

Name	One iota
Website	http://www.oneiota.co.uk/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; m-commerce

OpenMarket

Name	OpenMarket
Website	http://www.openmarket.com/
Geographical presence	North/ Latin America
Company type	Mobile transactions company
Types of services provided	direct operator billing; mobile airtime top-ups; mobile and web checkout

Optimal Payments

Name	Optimal Payments
Website	http://www.optimalpayments.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile money transfer services

Option

Name	Option
Website	http://www.option.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

PapayaMobile

Name	PapayaMobile
Website	http://papayamobile.com/
Geographical presence	North/ Latin America
Company type	Social networking and gaming company
Types of services provided	billing services

Parseq

Name	Parseq
Website	http://www.parseq.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile banking

Pay.On

Name	Pay.On
Website	http://www.payon.com/
Geographical presence	Europe
Company type	Mobile payments processor
Types of services provided	payment processing services

PayEx

Name	PayEx
Website	http://payex.com/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile POS; mobile wallet

Payfirma

Name	Payfirma
Website	http://www.payfirma.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor; App developer
Types of services provided	mobile banking; e-commerce payments; card payments

Payfone

Name	Payfone
Website	http://payfone.com/
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	direct carrier billing

Paymate

Name	Paymate
Website	http://www2.paymate.com/pm/default.asp
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	Signature Capture service; mobile banking; mobile online payments

Payment Data Systems

Name	Payment Data Systems
Website	http://www.billserv.com/index.htm
Geographical presence	North/ Latin America
Company type	Mobile payments processor
Types of services provided	processing electronic payments via the Internet, point of sale, or payments taken by Customer Service Representatives or an Interactive Voice Response (IVR)

PayOne

Name	PayOne
Website	http://paymentone.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	direct carrier billing

A COMPREHENSIVE OVERVIEW OF PLAYERS IN THE WORLDWIDE MOBILE INDUSTRY

PAYCENTO

Name	Paycento
Website	www.paycento.com
Head office	Belgium - Leuven
Regional office(s)	Location only
Geographical presence	Belgium/EU
Contact details / person	Pieter Dubois, pieter@paycento.com, +32-472.72.45.96
Company description	Paycento provides a patent pending mobile conversion and payment platform allowing both real and virtual currency transactions from 1 cent up. You can pay casually for digital content or virtual goods, using your social network identity or by exchanging digital coins. In addition, Paycento provides an e-wallet based app that can scan QR codes to make offline payment transactions or supports offline to online conversion by putting virtual money in you e-wallet to be used online.
Company type	Marketing platform provider; Payment platform provider;Transaction platform provider
Market segments	digital online content monetization: news, video, music, games
	micropayments (1 cent - 5€): online-offline
	Virtual currencies/loyalty/offline to online conversion
Keywords	micropayments, online content, virtual currencies, digital goods, conversion
Technology partners	Microsoft
Initiatives	Confidential
Active since	2012

SERVICES

Types of services provided	mobile wallet (white label & branded); mobile online payments, includes digital goods;
	API for building applications needing online & mobile transactions; mobile loyalty & couponing; emitting branded virtual currency; m-payment enabling technology
Target transaction size	nano, micro (1 cent to 5€)
Core services	Monetization of online digital content: news, video, audio, games & digital goods. Frictionless payments by using social network identity providers. Multi-currency & shareable e-Wallets. Conversion, gamification and creation of engagement by distributing branded virtual currencies to educate potential customers of the value of your content. Mobile e-wallet app with QR code scanning capability offline (posters, newspapers, bills, ...). Configurable (one time, reusable ...) & personalized codes that can be used in QR codes, RFID & NFC applications. API integration possible for creating value added apps. Drupal/Wordpress plug-in's to reach long tail.
Unique selling points	Pay anonymously using your social network identity or using personalized & configurable codes. Mix virtual & real currencies in a single conversion platform. Allow free articles and negative e-wallet balances (post-paid). Economical at every price point by %-based billing. Build your own app on top of Paycento's transaction facilities through our business oriented API.
Pricing	For real currency payments; transaction fee, variable %-based without fixed costs. For virtual currencies, depends on the volume, value & usage: from per transaction, to fixed fee possible.
Other services	White label wallets possible if userbase is captured by content provider.

USER EXPERIENCE

Signup and / or activation	Open Web
Transaction initiation	Social Network Identity/scan barcode / RFID / NFC/Provide unique code
Transaction authorization	Social Network Identity Provider/online by Paycento
Transaction confirmation	via mobile device /via online account /implicit by obtaining access
Reporting	Transaction overview in-app /via dedicated online account

TECHNOLOGY

Telecom	mobile internet (TCP/IP)
Proximity	RFID / NFC / (2D) barcode
Mobile applications	Android, iPhone, Browers - mobile memory
App distribution	Downloadable
Fraud Measures	Social Network Identity analysis

INSIGHTS INTO THE OPPORTUNITIES & CHALLENGES OF MOBILE PAYMENT TECHNOLOGIES

PROGRESSSOFT CORPORATION

Name	ProgressSoft Corporation
Website	www.progressoft.com
Head office	87 Queen Rania Street, Amman - Jordan
Regional office(s)	Qatar, Oman
Geographical presence	Global
Contact details / person	Yazan Goldstein, yazan.goldstein@progressoft.com. Tel: 962 6 56 23 000
Company description	Since 1989, ProgressSoft has been focusing its proficiency in payments and imaging technologies to deliver innovative solutions to the banking and financial sectors. The company nurtures a diversified client base that extends to more than 440 banks and central banks in 24 countries around the globe. ProgressSoft provides solutions in the fields of Electronic Image-based Check Clearing, Mobile Payment, ACH Payment, Securities Trading Settlement and Intelligent Signature Verification. In 2001, ProgressSoft introduced the World's First Electronic Image-based Check Clearing Solution. The solution has been implemented on a nationwide scale in 7 countries, successfully actualizing a same-day clearing cycle and check truncation from the branch level.
Company type	Payment processor (third-party) ; Technology company: platform provider, service provider, application developer
Market segments	NFC / proximity payments; mobile money transfer & remittances (domestic / international); mobile POS payments
Keywords	Mobile Payment, Mobile Payment Clearing, Mobile Payment Switch, NFC, Near Field Communication
Initiatives	The Mobile Payment Solution, PS-mPay (www.ps-mpay.com) The Mobile Payment Switch, PS-mpClear (www.ps-mpclear.com)
Active since	1989

SERVICES

Types of services provided	mobile online payments, includes digital goods; mobile POS; mobile money transfers (P2P); mobile remittance; m-payment enabling technology
Target transaction size	micro
Core services	PS-mPay - is a Mobile Payment Solution that enables customers to conduct money payment transactions using their mobiles devices, anytime anywhere. The solution allows banked and unbanked users to conduct Person2Person, Person2Business, Person2Government and POS (NFC-based) Payments, in addition to Bill Payments and International Remittances. PS-mpClear - is a real-time payment switch responsible for processing inter-bank and inter-processor mobile payment transactions. The solution enables the Central Bank to assume its vital role in the mobile payment cycle; it provides the means to oversee and control the financial stability of mobile payment participants and assure their compliance with the Central Bank's regulations.
Unique selling points	Exploiting more than two decades of experience in payment and clearing solution to provide a nationwide, collaborative model of mobile payment that serves the needs of all stakeholders of the mobile payment ecosystem.

USER EXPERIENCE

Signup and / or activation	Open Web
Transaction initiation	RFID / POS / Mobile Device
Transaction authorization	PIN entry in-app / via mobile device / at the POS / verification code provided via SMS
Transaction confirmation	Via mobile device
Reporting	Transaction overview in-app / via bank account / via dedicated online account

TECHNOLOGY

Telecom	SMS / USSD / mobile internet / GPRS / UMTS
Proximity	NFC
Mobile applications	SIM-based / SDcard-based / phone memory
App distribution	Dowloadable / install at MNO or bank branch

INDUSTRY INSIGHTS FROM TOP PLAYERS IN THE MOBILE FINANCIAL SERVICES MARKET

One Device in Your Hand

One Necessity in Your Pocket

One Means of Payment

One World of Convenience

ProgressSoft presents PS-mPay, the contemporary Mobile Payment Solution, and PS-mpClear, the Mobile Payment Switch, which enable Person2Person, Person2Business and Person2Government Payments, in addition to Bill Payments, Point-of-Sale (NFC) Payments and International Remittances. With ProgressSoft's mobile payment offering, all payments can be carried out by banked and unbanked users anytime, anywhere.

ProgressSoft
www.progressoft.com

PayPal

Name	PayPal
Website	https://www.paypal.com/
Geographical presence	Global
Company type	Mobile payments processor; Technology provider
Types of services provided	mobile banking, mobile payments; online payments; mobile money transfers (P2P); cheque deposit capture service

Perceptive Development

Name	Perceptive Development
Website	http://www.perceptdev.com/
Geographical presence	North/ Latin America
Company type	Technology provider; Mobile payments processor
Types of services provided	m-payments enabling technology; mobile payments

Plastyc

Name	Plastyc
Website	http://www.plastyc.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	online banking; mobile banking; mobile airtime top-up

PlaySpan

Name	PlaySpan
Website	http://www.playspan.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; Monetization-as-a-ServiceTM platform

Prepay Nation

Name	Prepay Nation
Website	http://www.prepaynation.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile airtime top-up; mobile remittance; mobile money transfers (P2P)

ProPay

Name	ProPay
Website	http://www.propay.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider; Technology provider
Types of services provided	e-commerce; m-payments enabling technology

Proxama

Name	Proxama
Website	http://www.proxama.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology (NFC mobile wallet technology)

Qatar National Bank

Name	Qatar National Bank
Website	http://www.qnb.com.qa/qnbint/index.jsp?site=QNBUnitedKingdom
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	online banking; mobile banking

QCell

Name	QCell
Website	http://www.qcell.gm/
Geographical presence	Middle East/ Africa
Company type	3G GSM operator
Types of services provided	mobile airtime top-ups; mobile internet

Rabobank - Mobile iDEAL

Name	Rabobank - Mobile iDEAL
Website	http://www.rabobank.com/content/
Geographical presence	Europe
Company type	Financial services provider
Types of services provided	mobile banking, mobile payment

RegaloCard

Name	RegaloCard
Website	http://www.regalocard.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile money transfers;

Regions Financial

Name	Regions Financial
Website	https://www.regions.com/personal_banking.rf
Geographical presence	North/ Latin America
Company type	Finacial institution
Types of services provided	mobile banking; online banking

RewardLoop

Name	RewardLoop
Website	http://corp.rewardloop.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile POS; m-payments enabling technology

RFinity

Name	RFinity
Website	http://wn.com/rfinity
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology;

Roamware

Name	Roamware
Website	http://www.roamware.com/index.php
Geographical presence	North/ Latin America
Company type	Mobile roaming and mobile financial services provider
Types of services provided	mobile payments services

Roshan

Name	Roshan
Website	http://www.roshan.af/Roshan/Home.aspx
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile money transfers, mobile airtime top-ups, merchant payments

Sage Group

Name	Sage Group
Website	http://www.sage.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

Sage Payment Solutions

Name	Sage Payment Solutions
Website	http://www.sagepayments.com/
Geographical presence	North/ Latin America
Company type	Payments processor
Types of services provided	credit card processing; mobile POS

Samsung

Name	Samsung
Website	http://www.samsung.com/ro/#latest-home
Geographical presence	Global
Company type	Technology provider
Types of services provided	m-payments enabling technology

SBAB

Name	SBAB
Website	https://www.sbab.se/2/in_english.html
Geographical presence	Europe
Company type	Bank
Types of services provided	mobile banking

Seamless

Name	Seamless
Website	http://www.seamless.se/
Geographical presence	Europe
Company type	Technology provider; app developer
Types of services provided	mobile commerce; m-payments enabling technology; mobile wallet

SelectCore

Name	SelectCore
Website	http://www.selectcore.com/
Geographical presence	North/ Latin America
Company type	Payments processor; Technology provider
Types of services provided	mobile POS; mobile banking; card processing

SFR (subsidiary of Vivendi)

Name	SFR (subsidiary of Vivendi)
Website	http://www.sfr.fr/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	direct carrier billing

Shanghai Pudong Development

Name	Shanghai Pudong Development
Website	http://www.spdb.com.cn/chpage/c510/
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	mobile banking

Shazam

Name	Shazam
Website	http://www.shazam.com/
Geographical presence	North/ Latin America
Company type	EFT provider
Types of services provided	mobile POS

Sicap

Name	Sicap
Website	http://www.sicap.ch/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology;

Sierra Data Systems

Name	Sierra Data Systems
Website	http://www.sierradata.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-banking enabling technology; mobile banking

SK C&C USA

Name	SK C&C USA
Website	http://www.corfire.com/our-company/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile commerce; m-payments technologys

SK Telecom

Name	SK Telecom
Website	http://www.sfr.fr/
Geographical presence	Asia-Pacific
Company type	Mobile Network Operator
Types of services provided	mobile payments services

SmartSoft

Name	SmartSoft
Website	http://www.smartsoft-it.com/
Geographical presence	Global
Company type	Mobile payments services provider
Types of services provided	NFC mobile payment services; EMV services; pre-paid cards; payment processing; mobile banking; mobile POS

THE MOST COMPLETE & UP-TO-DATE REFERENCE SOURCE FOR PROFESSIONALS IN THE MOBILE FINANCIAL SERVICES SPACE

SMS Passcode

Name	SMS Passcode
Website	http://www.smspasscode.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

SmsCoin

Name	SmsCoin
Website	http://smscoin.net/
Geographical presence	Europe
Company type	SMS payments provider
Types of services provided	mobile payments

Softbank Mobile

Name	Softbank Mobile
Website	http://mb.softbank.jp/en/
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	e-commerce; m-payments enabling technology; mobile payment services; mobile coupons; mobile wallet

Square

Name	Square
Website	https://squareup.com/
Geographical presence	North/ Latin America
Company type	Mobile card payment processor;
Types of services provided	mobile POS

Standard Chartered Bank

Name	Standard Chartered Bank
Website	http://www.standardchartered.com/en/
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	online banking; mobile banking

Starbucks

Name	Starbucks
Website	http://www.starbucks.com/
Geographical presence	North/ Latin America
Company type	Coffee company
Types of services provided	2D barcode

State Bank of India

Name	State Bank of India
Website	http://www.statebankofindia.com/
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	mobile banking; online banking

Sybase

Name	Sybase
Website	http://www.sybase.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile banking; m-commerce; m-payment enabling technology; mobile remittance

Tagattitude

Name	Tagattitude
Website	http://www.tagattitude.fr/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology;

TDC

Name	TDC
Website	http://tdc.com/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	m-wallet

Techfirm

Name	Techfirm
Website	http://www.techfirm.co.jp/en/index.html
Geographical presence	Asia-Pacific
Company type	App developer
Types of services provided	mobile POS; mobile wallet

Telefónica

Name	Telefónica
Website	http://www.telefonica.com/en/home/jsp/home.js
Geographical presence	Global
Company type	Mobile Network Operator
Types of services provided	prepaid top-up services; mobile money transfers (P2P)

Telenor

Name	Telenor
Website	http://www.telenor.com/en/about-us/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments; mobile wallet

Teletech Middle East

Name	Teletech Middle East
Website	http://www.teletechme.ae/
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	m-payments enabling technology; M-POS , E-top ups, M-Wallet, E-payment, M-transfer, M-Buy

Telia

Name	Telia
Website	http://www.telia.se/privat/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments

TeliaSonera

Name	TeliaSonera
Website	http://www.teliasonera.com/
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	m-wallet

Temenos

Name	Temenos
Website	http://www.temenos.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology

Tempo Payments

Name	Tempo Payments
Website	http://www.tempo.com/
Geographical presence	North/ Latin America
Company type	Financial services provider
Types of services provided	mobile payments

Text2Pay

Name	Text2Pay
Website	http://text2pay.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile banking; m-payments enabling technology

The Oversea-Chinese Banking Corporation

Name	The Oversea-Chinese Banking Corporation
Website	http://www.ocbc.com/global/main/index.shtm
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	mobile banking

The Western Union Company

Name	The Western Union Company
Website	www.westernunion.com
Geographical presence	Global
Company type	Mobile payments services provider
Types of services provided	mobile money transfers; mobile online payments; mobile airtime top-ups; mobile banking

Think Computer

Name	Think Computer
Website	http://www.thinkcomputer.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile wallet

Think&Go NFC

Name	Think&Go NFC
Website	http://www.thinkandgo-nfc.com/
Geographical presence	Europe
Company type	NFC services provider
Types of services provided	e-commerce; mobile loyalty couponing; mobile wallet

Tieto

Name	Tieto
Website	http://www.tieto.com/
Geographical presence	Europe
Company type	IT Company
Types of services provided	m-payments enabling technology

TpayMobile

Name	TpayMobile
Website	http://www.tpaymobile.com/
Geographical presence	Asia-Pacific
Company type	Technology provider (platform)
Types of services provided	direct carrier billing

Transaction Wireless

Name	Transaction Wireless
Website	http://www.transactionwireless.com/
Geographical presence	North/ Latin America
Company type	Card services provider
Types of services provided	B2B gift cards

Trunkbow

Name	Trunkbow
Website	www.trunkbow.com
Geographical presence	Asia-Pacific
Company type	Mobile payments services provider; Technology provider
Types of services provided	m-commerce; mobile POS; m-payments enabling technology

TSYS

Name	TSYS
Website	http://www.tsys.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile payments processing services

Turkcell

Name	Turkcell
Website	http://www.turkcell.com.tr/Sayfalar/anasayfa.aspx
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile wallet;

txtNation

Name	txtNation
Website	http://www.txtnation.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	direct carrier billing

Tyfone

Name	Tyfone
Website	http://www.tyfone.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile wallet; e-commerce; mobile banking

Ukash

Name	Ukash
Website	http://www.ukash.com/global/en/home.aspx
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile online payments; online banking; mobile banking

uMonitor

Name	uMonitor
Website	http://www.umonitor.com/usolutions.htm
Geographical presence	North/ Latin America
Company type	Financial services provider
Types of services provided	mobile money transfers;

Unibank

Name	Think Computer
Website	http://www.unibankghana.com/
Geographical presence	Middle East/ Africa
Company type	Bank
Types of services provided	mobile banking

Union Bank of India

Name	Union Bank of India
Website	http://www.unionbankofindia.co.in/
Geographical presence	Asia-Pacific
Company type	Bank
Types of services provided	mobile banking; mobile airtime top-ups; mobile money transfers

US Bank

Name	US Bank
Website	http://www.usbank.com/index.html
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile banking

Usablenet

Name	Usablenet
Website	http://www.usablenet.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	mobile commerce; m-payments technology

Utiba Americas

Name	Utiba Americas
Website	http://www.utiba.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology; mobile walle

Vanco

Name	Vanco
Website	http://www.vancoservices.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	text payment service; mobile money transfers

Vantiv

Name	Vantiv
Website	http://www.vantiv.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology

Vasco Data Security

Name	Vasco Data Security
Website	http://www.vasco.com/
Geographical presence	Europe
Company type	Technology provider
Types of services provided	m-payments enabling technology; authentication and e-signature services

Verizon Wireless

Name	Verizon Wireless
Website	http://www.verizonwireless.com/b2c/index.html/
Geographical presence	North/ Latin America
Company type	Mobile Network Operator
Types of services provided	mobile payments

THE MOBILE FINANCIAL INDUSTRY EXPOSED

VimpelCom

Name	VimpelCom
Website	http://vimpelcom.com/index.wbp
Geographical presence	Europe
Company type	Mobile Network Operator
Types of services provided	mobile payments

Vipera Mobile Payments

Name	Vipera Mobile Payments
Website	http://www.vipera.com/index.html
Geographical presence	Europe
Company type	Technology provider (platform)
Types of services provided	m-payments enabling technology

Visa

Name	Visa
Website	http://corporate.visa.com/index.shtml
Geographical presence	Global
Company type	Mobile payments processor
Types of services provided	mobile money transfers (P2P); mobile commerce; mobile banking; mobile wallet; mobile online payments, including didgital goods

ViVOtech

Name	ViVOtech
Website	http://www.vivotech.com/
Geographical presence	North/ Latin America
Company type	Technology provider
Types of services provided	m-payments enabling technology;

VocaLink

Name	VocaLink
Website	http://www.vocalink.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile airtime top-ups; mobile POS; mobile money transfers

Watchdata

Name	Watchdata
Website	http://www.watchdata.com/
Geographical presence	Asia-Pacific
Company type	Technology provider
Types of services provided	m-payments enabling technology

VERIFONE

Name	VeriFone
Website	www.verifone.com
Head office	VeriFone
	7 Cowley Business Park-Uxbridge-UB8 2AD-United Kingdom
	Tel: +44 (0) 1895 275275 ; Fax: +44 (0) 1895 275276 ; E-mail: info-emea@verifone.com
Regional office(s)	VeriFone Sp. z o.o.
	ul. Bukowińska 22 B- 02-703 Warsaw, Poland
	Tel: +48 22 380 1700 ; Fax: +48 22 380 1701
Geographical presence	VeriFone has a global presence is the the largest payments technology provider worldwide.
Contact details	info-emea@verifone.com +44 (0) 1895 275275
Company description	VeriFone is a global leader in secure electronic payment technologies. We provide solutions, services, and expertise that enable electronic payment transactions and value-added services at the point of sale.
Company type	Technology provider: platform provider, application developer, acceptance device manufacturer
Market segments	Digital goods;
	Physical goods;
	NFC / proximity payments;
	Mobile money transfer;
	Mobile POS payments
Keywords	Payments, mobile commerce, technology, managed services, NFC, contactless
Partners	VeriFone works with all partners in the payments and NFC acceptance ecosystem including systems integrators, security assessors, card associations, MNOs, acquirerers and more.
Initiatives	Managed services, NFC, mobile commerce
Active since	1981

SERVICES

Types of services provided	Verifone works with any size transaction or merchant. From Tier 1 retailers to SMEs
Target transaction size	VeriFone provide solutions, services, and expertise that enable electronic payment transactions and value-added services at the point of sale.
Core services	Mobile online payments, includes digital goods;
	Mobile POS;
	Mobile money transfers(P2P);
	M-payment enabling technology;
Pricing	Price upon request. Please contact: info-emea@verifone.com
Other services	VeriFone gives you full control over your NFC mobile commerce experience. Regardless of the phone, wallet or app consumers bring into your stores, VeriFone enables seamless transactions at the point of sale.

Wells Fargo

Name	Wells Fargo
Website	https://www.wellsfargo.com/
Geographical presence	North/ Latin America
Company type	Bank
Types of services provided	mobile banking; mobile remittance;

Wirecard

Name	Wirecard
Website	http://www.wirecard.com/
Geographical presence	Europea
Company type	Technology provider
Types of services provided	m-payments enabling technology

Xoom

Name	Xoom
Website	https://www.xoom.com/
Geographical presence	North/ Latin America
Company type	Mobile money transfer company
Types of services provided	mobile money transfers

YESpay

Name	YESpay
Website	http://www.yes-pay.com/
Geographical presence	Europe
Company type	Mobile payments services provider
Types of services provided	mobile wallet; online payments

Zong (part of eBay)

Name	Zong (part of eBay)
Website	http://www.zong.com/
Geographical presence	North/ Latin America
Company type	Mobile payments services provider
Types of services provided	mobile payments services

WORLDPAY

WorldPay

Name	WorldPay
Website	www.WorldPay.com
Head office	55 Mansell Street, London, E1 8AN, United Kingdom
Regional office(s)	Netherlands, Singapore, USA (Atlanta and San Francisco)
Geographical presence	Global
Contact details	sales@Worldpay.com
Company description	WorldPay is the only secure payment processor that supports the complex payment processing requirements of the largest enterprises. Our payment services offer global coverage and provide businesses with the capability to process large numbers of transactions using a wide range of card and alternative payment methods.
Company type	Acquirer and Payment service provider
Market segments	Digital content, Gaming, Airlines, Retail, Travel, Video Games, Insurance, Government.
Keywords	Gloabal, payments, alternative, mobile, online, offline, e-commerce, m-commerce
Initiatives	Desktop, Mobile & Tablet support; Direct and Hosted solutions; Alternative payments.
Active since	1989

SERVICES

Types of services provided	Payment Gateways
Target transaction size	All sizes
Core services	Payment gateway, acquiring, foreign exchange, alternative payments and fraud risk management
Unique selling points	Expertise: Decades of experience helping multi-national companies expand internationally
	Capacity: High capacity/TPS option for peak load processing.
	Risk management: Tools for fraud detection and prevention with consultancy services for analysis, design and optimisation.
	Identity and eligibility management: International age and identification services built-in.
	Multi-channel: Internet, telephone and mail order, face-to-face.
Pricing	Please contact us for a tailored pricing scheme.
Other services	recurring payments, tokenisation.

USER EXPERIENCE

Signup and / or activation	open web / mobile device / payment account / none
Transaction initiation	Card number, mobile telephone number, online bank transfer, offline bank transfer
Transaction authorization	on screen/ email
Transaction confirmation	on screen/ email
Reporting	Dedicated Merchant Interface

TECHNOLOGY

Telecom	internet, mobile internet
Fraud Measures	Risk Guardian (market leading fraud screening tool)

GMX YouTransactor

Name	GMX YouTransactor
Website	www.youtransactor.com
Head office	32 rue Brancion 75015 Paris France
Regional office(s)	N/A
Geographical presence	Present Directly in France and through Local Agents and Distributors in the UK, Scandinavia, Germany, Switzerland, Turkey, UAE, Malaysia
Contact details / person	Nicolas Chardon head of Marketing tel: +3367999924, nchardon@youtransactor.com
Company description	Created 5 years ago by a team of experimented Executives, Managers and Experts from the Electronic Payment, professional Mobility and Security is the first supplier he SK Family : Professional Secured and rugged Smartphones and Tablets. Gmx YouTransactor is certified both by PCI council and EMVco and operates in mainly in Europe Middle East, South East Asia. Gmx YouTransactor is privately funded
Company type	Professional Handset manufacturer; Technology company: Secure platform provider (Hardware & Software), secure element issuer, secure application developer
Market segments	***Professional mCommerce and payment*** (Home and Business deliveries, On Board sales for Planes and Trains, Lotteries ans sports betting, Stadium catering services, Restaurant Order Taking and Pay@Table, Retail Line Busting, Instore Face to Face CRM , Taxis added value services, etc... ***Professional mGovernement*** (Mass Transit ticket control and payment, Police Fines collections, mobile e-ID Control, Cities Markets fares collections, etc....)
Keywords	mCommerce, Payment PDA, Professional Smartphone, HTML5, PCI-PTS, EMV, NFC, Security, Card Payment
Certifications	Visa/Mastercard certified, CB5.2, EP2, PNC-SAC, ANTAI, CC UK card Association, PCI-PTS, EMV L1/L2
Partners	Honeywell, Marwell, Atmel, Inside Wireless, Magtek, U-Blox, NXP
Active since	Created 5 years ago by a team of experimented Executive, Managers and Experts from the Electronic Payment, professional Mobility and Security

SERVICES

Types of services provided	mobile wallet; mobile Branchless banking; mobile online payments, includes digital goods
	mobile POS and Cash register; mobile loyalty & couponing; mobile money transfers (P2P) on Merchants side; Branchless mobile remittance; mobile airtime top-up on issuers side m-payment enabling technology ; mobile mass transit ticket control an payment ; Mobile police fines collection and Payment; Mobile e-ID Control (Driving license, Id-Card, passport); Mobile Authentication and signature (biometry)
Target transaction size	NA
Core services	YouTransactor's SK20 device is a very compact, weighs 200g with a form factor close to any smartphone. It is equipped with readers for mag-stripe and chips, both contact and contactless . Radio-signal communication is by Wifi, GPRS or 3G. Data capture is via a bar-code scanner, GPS and fingerprint reader. The SK20 uses Bluetooth to communicate a mobile printer. Applications (open or secured) are Web-based HTML 5 and reside on the device or in the cloud. Open architecture for the M2M Smartphone includes WebKit Browser on Linux. SK20 is PCI PTS and EMV Level 1 & 2 compliant.
Unique selling points	The SK Family enable any Professional from various markets to run on a "Single Screen Single Keyboard" mobile device, any secure application as electronic payment, signature or authentication while allowing open applications specific to the jobs of professional users to be executed in a fluid interaction.
Pricing	For Pricing please refers to salesgmx@youtransactor.com
Other services	Fraud prevention

USER EXPERIENCE

Signup and / or activation	open web / mobile device / professional smart card
Transaction initiation	scan barcode / RFID / POS / mobile number provided at POS /smart card, NFC
Transaction authorization	PIN entry in-app / via mobile device / at the POS / verification code provided via SMS / PCI-PTS, EMV
Transaction confirmation	via mobile device / at the POS / via online account
Reporting	Transaction overview in-app / via bank account / via dedicated online web server

TECHNOLOGY

Telecom	SMS / USSD / mobile internet / GPRS / UMTS,
Proximity	RFID / NFC / (2D) barcode / Bluetooth / WIFI/GPS
Mobile applications	SIM-based / SDcard-based / phone memory, web
App distribution	Secured Dowload / over the air (OTA) / pre-loaded / install at MNO or bank branch
Fraud Measures	PCIPTS EMV L1/2 Certified

searchable

company profiles

on

www.thepaypers.com

Design award

JANUS 2009
DU SERVICE

YouTransactor™
MOBILE COMMERCE DONE RIGHT™

Mobile Commerce
Done Right

e-Government
ANTAI   PCI PTS
Retail   HTML5   Bluetooth
CB 5.2   Biometry GPRS   Customer Assistance
Police fines collection Visa Pocket-Sized
1D / 2D Imager 3G   NFC   Wi-Fi   EP2
Microfinance   Mastercard   Ruggedized   Lottery
Certified
PNC SAC Open System   Colour touchscreen
Magnetic Stripe   Line-Busting
Hospitality Chip & Pin 5Mp Color Camera
Embedded Web Server   On-board Sales
Deliveries   CC UK Card Association
EMV L1/L2 200g GPS   Taxis
Transportation

Made in Europe