

OVERVIEW

MOBILE PAYMENTS INITIATIVES

Abstract	This document aims to provide an overview on initiatives on mobile payments, mobile wallets and mPOS introduced or planned for introduction into the market.
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Disclaimer

The objective of the present document is to provide illustrations of the development of the market on mobile payments. This means that the overview given is not aimed to be exhaustive. The collection of the initiatives is done on a best-effort basis. The inclusion of any initiative into the document does not imply that EPC in any form endorses, supports, or recommends such initiative. The non-inclusion of any initiative does not imply any judgment on the part of the EPC. The EPC endeavours to describe the initiatives as accurately as possible, with the sole objective of an illustration and is not accountable for any error and/or omission. The EPC will not be liable for any claims or losses of any nature arising directly or indirectly from use of the information, data or other material contained with this document.

Executive Summary

The goal of the EPC is to deliver rules and standards for the cooperative space of payment services in SEPA through the development and promotion of standards, best practices and schemes within SEPA. For mobile payments this means establishing high level principles in order to create the necessary standards and business rules for payment service providers in this new area.

The overall role of the EPC is to contribute to the promotion of the Single Euro Payments Area (SEPA) and to the evolution of an integrated market for payments in Europe, through helping in or facilitating the development and promotion of standards, best practices and schemes (see <http://www.europeanpaymentscouncil.eu>).

Since mobile phones have achieved full market penetration and rich service levels they are an ideal channel for payment instruments. The usage of the mobile phone is hereby primarily considered for the payment initiation whereas the underlying payments are based on existing payment instruments. Since the mobile payments ecosystem continues to grow and mature, the future of a SEPA market for mobile payment services needs to be taken into consideration. Additional high-level principles, requirements and rules for mobile payments in addition to the underlying payment instrument are necessary to ensure a consistent consumer experience and interoperability. Therefore the EPC fosters cross-industry cooperation to enable the mobile handset to become an efficient channel to initiate payments.

The present document aims to provide an overview on existing and potential initiatives in the mobile payments market. The main purpose of this report is to create awareness on the latest developments based on the following sources:

- Contributions by EPC members on community initiatives;
- Initiatives reported in various newsfeeds.

The overview portrays the initiatives on mobile payments, mobile wallets and mPOS over the last seven months (November 2013 – May 2014) within the SEPA area and outside. This document will be bi-annually updated by the EPC by updating the status of existing initiatives and by including any new initiatives over the last six months. Initiatives which are more than one year old will no longer be included.

1. Document information

Structure of the document

This section describes the structure of this document. Section 1 provides the references, definitions, and abbreviations used in this document. General information about the European Payments Council (EPC) and its vision may be found in Section 2. Section 3 contains an introduction to mobile payments while Section 4 provides high level information on mobile wallets and the services they could support. Section 5 defines the usage of a mobile device as Point-of-Sale, the so-called mPOS. Sections 6 and 7 portray the initiatives on mobile payments, mobile wallets and mPOS over the last five months (January 2014 – May 2014), respectively within the SEPA area and outside.

The definitions and abbreviations listed in Table 2 and Table 3 may not always be used in the described initiatives as of section 6. The concerned tables can assist the reader in understanding any terminology and abbreviations used for mobile payments.

References

This section lists the references mentioned in this document.

Ref.	Title
[1]	EMVCo EMV Mobile Contactless Payment - White Paper: The Role and Scope of EMVCo in Standardising the Mobile Payments Infrastructure - Version 1.0 www.emvco.com
[2]	European Payments Council EPC492-09: White Paper Mobile Payments http://www.europeanpaymentscouncil.eu
[3]	European Payments Council – GSM Association EPC 220-08: Mobile Contactless Payments Service Management Roles - Requirements and Specifications http://www.europeanpaymentscouncil.eu
[4]	European Payments Council EPC 178-10: Mobile Contactless SEPA Card Payments Interoperability Implementation Guidelines http://www.europeanpaymentscouncil.eu
[5]	European Payments Council EPC163-13: White Paper Mobile Wallet Payments http://www.europeanpaymentscouncil.eu
[6]	GSMA White Paper Mobile NFC Services http://www.gsm.org
[7]	GSMA White Paper The Mobile Wallet

	http://www.gsm.org
[8]	<p>Mobey Forum</p> <p>Mobile wallet</p> <p>Part 1: Definitions and Visions</p> <p>Part 2: Control Points in the Mobile Wallet</p> <p>Part 3: The Hidden Controls</p> <p>Part 4: Structure and Approaches</p> <p>Part 5: Strategic Options for Banks</p> <p>http://www.mobeyforum.org</p>
[9]	<p>Mobey Forum</p> <p>A Series of White Papers on MPOS</p> <p>Part 1: The MPOS Breakthrough</p> <p>http://www.mobeyforum.org</p>
[10]	<p>European Commission</p> <p>Payment Services Directive</p> <p>Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market</p> <p>www.eur-lex.europa.eu</p>

Table 1: References

Definitions

The following terminology is applied in this document. The abbreviations used may be found in Table 3.

Term	Definition
Beneficiary	A natural or legal person who is the intended recipient of funds which have been the subject of a payment transaction (see [10]).
Consumer	A natural person who, in payment service contracts covered by the [10], is acting for purposes other than his trade, business or profession (as defined in [10]).
Customer	A payer or a beneficiary which may be either a consumer or a business.
Credential(s)	Payment/banking account related data that may include a passcode (mobile code, on-line passcode, etc.) provided by the PSP (issuer) to its customer which is provided via his/her mobile device for identification/authentication purposes in the context of mobile payments.
Digital wallet	A service accessed through a device (e.g., a PC) which allows the wallet holder to securely access, manage and use a variety of services/applications including payments, identification and non-payment applications. A digital wallet is sometimes also referred to as an e-wallet.
Financial services	Any service of banking, credit, insurance, personal pension, investment or payment nature (see ec.europa.eu/internal_market/financial-markets)
Merchant	The beneficiary within a mobile payment scheme for payment of goods or services purchased by the consumer/payer. The merchant is a customer of its PSP.
Merchant wallet	A type of wallet where the payment gateway and the mobile wallet gateway are integrated services at the merchant's website.
Mobile code	A user verification method used for mobile card payments. It is a code entered via the keyboard of the mobile device to verify the cardholder's identity as a cardholder verification method.
Mobile Contactless Payment (MCP)	A mobile device initiated payment where the cardholder and the merchant (and/or his/her equipment) are in the same location and communicate directly with each other using contactless radio technologies, such as NFC, for data transfer (also known as contactless payments).
Mobile device	Personal device with mobile communication capabilities such as a telecom network connection, Wi-Fi, Bluetooth ... which offers connections to internet. Examples of mobile devices include mobile phones, smart phones, tablets ...
Mobile Network Operator (MNO)	A mobile phone operator that provides a range of mobile services, potentially including facilitation of NFC services. The MNO ensures connectivity Over the Air (OTA) between the consumer and its PSP using its own or leased network (the latter are sometimes referenced as MVNOs - Mobile Virtual Network Operators).
Mobile payment service	Payment service made available by software/hardware through a mobile device.

Term	Definition
Mobile proximity payment	A mobile payment where the communication between the mobile device and the Point of Interaction device takes place through a proximity technology (e.g., NFC, QR code, etc.).
Mobile Remote Payment (MRP)	A payment initiated by a mobile device whereby the transaction is conducted over a mobile telecommunication network (e.g., GSM, mobile internet, etc.) and which can be made independently from the payer's location (and/or his/her equipment).
Mobile service	Service such as identification, payment, ticketing, loyalty, etc., made available through a mobile device.
Mobile wallet	A digital wallet accessed through a mobile device. This service may reside on a mobile device owned by the consumer (i.e. the holder of the wallet) or may be remotely hosted on a secured server (or a combination thereof) or on a merchant website. Typically, the so-called mobile wallet issuer provides the wallet functionalities but the usage of the mobile wallet is under the control of the consumer.
Mobile wallet gateway	<p>A service operated by the mobile wallet issuer or a trusted third party acting on its behalf, which establishes for mobile transactions a link between the consumer/payer and its mobile wallet and between the mobile wallet and the payment gateways.</p> <p>During the payment transaction, it allows the payment gateway to receive authentication data directly from the mobile wallet.</p> <p>For life cycle management, it establishes a link between the mobile wallet and the mobile wallet issuer to download credentials, payment and/or authentication applications from the PSP.</p>
Mobile wallet issuer	The service provider that issues mobile wallet functionalities to the customer (consumer or merchant).
Mobile wallet passcode	A code entered by the consumer/payer via his/her mobile device that may be required to activate a mobile wallet.
mPOS	The usage of a (consumer) mobile device to facilitate payments and enable acceptance of payment instruments.
Network operator	The provider of data connectivity to the consumer and potentially other services. MNOs and internet service providers are examples of network operators.
NFC (Near Field Communication)	A contactless protocol specified by ISO/IEC 18092.
Payer	A natural or legal person who holds a payment account and allows a payment order from that payment account, or, where there is no payment account, a natural or legal person who gives a payment order (see [10]).
Payment account	Means an account held in the name of one or more payment service users which is used for the execution of payment transactions (see [10]).
Payment gateway	<p>A service operated by a beneficiary's PSP or a trusted third party that manages the authorisation of payments for merchants.</p> <p>It facilitates the transfer of information between the payment portal (such as a website or mobile device) and the beneficiary's PSP.</p>

Term	Definition
Payment scheme	A technical and commercial arrangement set up to serve one or more payment systems and which provides the organisational, legal and operational framework rules necessary for the payment services marketed (e.g. card scheme, e-payment scheme, ...).
Payment Service Provider	The bodies referred to in Article 1 of the [10] and legal and natural persons benefiting from the waiver under Article 26 of the [10].
Payment system	A funds transfer system with formal and standardised arrangements and common rules for the processing, clearing and/or settlement of payment transactions (as defined in [10]).
Payment transaction	An act, initiated by the payer or by the beneficiary, of placing, transferring or withdrawing funds, irrespective of any underlying obligations between the payer and the beneficiary (as defined in [10]).
POS	“Point of Sale” device; the initial point where data is read from a consumer device (such as a mobile phone) or where consumer data is entered. As an electronic transaction-acceptance product, a POS consists of hardware and software and is hosted in acceptance equipment to enable a consumer to perform a payment transaction. The merchant controlled POS may be attended or unattended.
Trusted Service Manager (TSM)	A trusted third party acting on behalf of the secure element issuers and/or the mobile payment/authentication application issuers in the case where a secure element is involved, or on behalf of the mobile wallet issuers.

Table 2: Terminology

Abbreviations

Abbreviation	Term
GP	GlobalPlatform
GSMA	The GSM Association
HCE	Host Card Emulation
MCP	Mobile Contactless Payment
MNO	Mobile Network Operator
MRP	Mobile Remote Payment
MVNO	Mobile Virtual Network Operator
NFC	Near-Field Communications
OTA	Over the Air
POI	Point of Interaction
PSD	Payment Services Directive
PSP	Payment Service Provider
QR code	Quick Response code
TSM	Trusted Service Manager

Table 3: Abbreviations

2. General

About EPC

The European Payments Council (EPC, see <http://www.europeanpaymentscouncil.eu/index.cfm>) is the coordination and decision-making body of the European banking industry¹ in relation to payments. The purpose of the EPC is to support and promote the Single Euro Payments Area (SEPA). The EPC contributes to the development of the payment schemes and frameworks necessary to realise an integrated euro payments market. In particular, the EPC elaborates on common positions of payment service providers (PSPs)² for the cooperative space of payment services, assists in standardisation processes, formulates best practices and supports and monitors the implementation of decisions taken.

The EPC is representing banks, banking communities and payment institutions. More than 360 professionals from 34 countries are directly engaged in the EPC's work programme, representing organisations of all sizes and sectors of the European banking industry. The European Central Bank acts as an observer in all EPC working and support groups and in the EPC Plenary (the Plenary is the decision-making body of the EPC). The EPC is a not-for-profit organisation which makes all of its deliverables, including the SEPA Scheme Rulebooks and adjacent documentation, available to download free of charge on the EPC Website. Note that the EPC does not supply technology, goods or services.

Vision

The vision of the EPC is to contribute to the evolution of an integrated market for payments through helping in or facilitating the development and promotion of standards, best practices and schemes.

The payment transactions enabled by mobile devices and services could build on existing SEPA EPC Scheme Rulebooks, the SEPA Cards Framework and (global) standards as far as possible. Therefore, the EPC may assist in specifying standards and guidelines to create the necessary environment so that PSPs can deliver secure, efficient and user-friendly mobile solutions to access the SEPA payment instruments which may coexist with other payments instruments.

Cross-industry collaboration between all the different stakeholders in the mobile payment ecosystem would be a critical success factor. Different mobile payment solutions from multiple PSPs should be able to coexist in a same mobile device. Consumers should not be bound to a specific network operator or particular mobile equipment; they should also retain their ability to switch between PSPs. Clearly, interoperability is “the” feature needed to achieve these goals. The EPC has contributed to the development of mobile payments by developing a number of white papers and guidelines (see [2], [3], [4] and [5]).

At the same time it is important to have a good insight into the market evolutions in this area. Therefore the EPC has decided to maintain an overview on the new initiatives on mobile payments in the SEPA area and beyond, which is reflected in the present document.

Scope

The purpose of this document is to provide an overview of the various existing and new initiatives on mobile payments in the SEPA area and beyond. Hereby attention is paid to the underlying payment instrument used and some related aspects. It further contains sections highlighting mobile wallet initiatives as well as developments on mPOS.

The descriptions provided are based on information which is publically disclosed by the various partners involved in these mobile payments initiatives. That means that they are a mixture of both high-level and detailed views, depending on the information available.

The objective of this document is to provide illustrations of the development of the market on mobile payments. This means that the overview given is not aimed to be exhaustive. The collection of the initiatives is done on

¹ the banking industry is including banks, banking communities and payment institutions

² any reference to banks within this document is not intended to limit the provision of mobile payment services solely to banks but is meant to refer to PSPs

a best-effort basis. The inclusion of any initiative into the document does not imply that EPC in any form endorses, supports, or recommends the said initiative. The non-inclusion of any initiative does not imply any judgment on the part of the EPC. The EPC endeavours to describe the initiatives as accurately as possible, with the sole objective of an illustration and is not accountable for any error and/or omission.

With the publication of this white paper, the EPC wishes to inform all interested parties about recent market initiatives in the mobile area within SEPA and beyond.

Note that the definitions introduced in this overview document might not be fully coherent with the terminology used by the various sources of information.

This document will be bi-annually updated by the EPC by updating the status of existing initiatives and by including any new initiatives over the last six months. Initiatives which are more than one year old will no longer be included.

3. Mobile Payments

Consumers expect that new technology will continue to facilitate the convenience of carrying out daily and repetitive tasks. For example, an area that is still generating a great deal of attention is the necessity to use hard cash in conducting many commercial and personal daily payments. It is now widely accepted that some pervasive new technology-based solution should be introduced to minimise this problem.

Also consumers demand that whatever the ultimate nature of new technologies, processes or products, they should not add any significant shortcoming to the existing solutions they are supposed to improve upon. Furthermore, although there are already some service offerings capable of substituting cash, so far no technology or product has achieved the necessary acceptance to become a true alternative, chiefly because new burdens were added that consumers were not ready to accept.

Since mobile devices have achieved full market penetration and rich service levels they are an ideal channel for payment instruments. The usage of the mobile device is hereby primarily considered for the payment initiation whereas the underlying payments are based on existing payment instruments.

Mobile payments may broadly be classified as “contactless” (also known as “proximity”) or “remote” payments. For mobile “contactless payments” the payer and payee (and/or his/her equipment) are in the same location and communicate directly with each other using contactless radio technologies, such as near field communications (NFC), Bluetooth or infrared for data transfer (see [1], [2], [3], [4] and [6]). For mobile “remote payments” the transaction is conducted over telecommunication networks such as GSM or Internet, and can be made independently of the payer’s location and/or his/her equipment (see [2]).

Creating ease, convenience and trust for end-customers (payers/consumers and beneficiaries/merchants) is hereby regarded as critical for the further development of mobile payments.

The EPC has analysed the different payment categories and has given focus to mobile contactless SEPA card payments (MCPs) and mobile remote SEPA card and SCT payments over the past years. To contribute to the further development of the mobile payments, the EPC has published a number of white papers and guidelines in this area (see [2], [3], [4] and [5]), hereby endeavouring to

- Inform stakeholders of the EPC’s commitment to mobile payments in SEPA;
- Describe some elements of the rationale for payment service providers (PSPs) and other interested parties wishing to enter the mobile payment services market;
- Demonstrate the consumer adoption potential of mobile payments by presenting several realistic and illustrative scenarios for the use of mobile payments;
- Collect stakeholder views and feedback.

In the present document, the EPC aims to reflect the main initiatives on mobile payments which have newly appeared on the market over the past year.

4. Mobile Wallets

Similar to the physical world, a "digital wallet" acts as a digital organiser³ and typically contains identification information on the wallet holder, on payments instruments accessible to the wallet holder and optionally personal information items belonging to the holder (e.g., pictures, documents, etc.). This may include information related to eIDs, digital signatures and certificates, logon information and billing and delivery addresses as well as payment instrument related information such as credit and debit products and payment cards (prepaid/purse, debit, credit). Furthermore it may also include other applications such as loyalty, transport or ticketing.

A digital wallet is based on technical infrastructures (hardware and software) allowing the secure storage, processing and communication of the information described above provided by the wallet holder, the wallet issuer and the application/service providers. There exists a wide variety of different implementations for these infrastructures ranging from full implementation in the equipment of the wallet holder to remote implementations (as a remote wallet in a "Software as a Service") accessed through the wallet holder's equipment.

Mobile wallets are digital wallets which are accessed through a mobile device (e.g., mobile phone, tablet, etc...). In the context of this document it is a service allowing the wallet holder to access, manage and use mobile payment services, possibly, next to non-payment applications. As said before, this service may reside on a mobile device owned by the consumer (i.e. the holder of the wallet) or may be remotely hosted on a secured server (or a combination thereof) or on a merchant website. Typically, the so-called mobile wallet issuer provides the wallet functionalities but the usage of the mobile wallet is under the control of the consumer. In case the wallet issuer is the merchant, it is generally referred to as a "merchant wallet". More information on mobile wallets may be found in [5], [7] and [8].

Although different mobile wallets have been launched in the market in recent years, they are still in their early stages of development. However, a variety of services are already offered to customers. Where originally the penetration of mobile wallets was more focused on coupon deployment and loyalty management, more recently, the mobile wallet presents diverse capabilities extending well beyond these services such as the management of mobile financial services including mobile banking and payment opportunities.

As an illustration, a mobile wallet may include (but is not limited to) the following features:

- Management by the consumer/payer of a broad portfolio of mobile payment services from different providers (e.g., prioritisation or default selection) including sensitive data to be protected;
- Facilitation of the payments (selection and authentication) for goods or services or person-to-person payments;
- Storage of tickets, boarding passes that can be presented at a checkpoint;
- Offering of a single storage place for loyalty programs and coupons;
- Storage of credentials for easy and convenient identification and authentication (e.g., for access control);
- Storage of personal information such as delivery address to facilitate on-line shopping experience, ...

The present document will highlight mobile wallet initiatives introduced in the market over the past year.

5. Mobile Point-of-Sale (mPOS)

The term mPOS (mobile point of sale) refers to the ability for a payment transaction to be executed through a (consumer) mobile device such as a smart phone or tablet instead of using a traditional point-of-sale terminal. Mobey Forum (see www.mobeforum.org) provides the following definition: an mPOS refers to using a consumer mobile device to facilitate payments and enable acceptance of payment instruments.

From a technical perspective, mPOS devices leverage both hardware and software components to allow a merchant or individual to accept payments. To support various data reading modalities, some form of add-on

³ Also referred to as a "digital container" by Mobey Forum (see [8])

physical hardware such as a sleeve, dongle or card reader is typically required. As an example, several companies have developed mobile card readers, which plug into a mobile device's audio jack to accept cards. The mobile apps that support such readers often have interfaces that resemble traditional cash registers.

The ability of a quick enrollment process for merchants with payment solution providers, the flexibility offered, the enhancement of retail and payment experience and the reduced equipment costs seem to be the main drivers for the adoption of mPOS based solutions.

More information on mPOS may be found in [10]. Recent market initiatives in this area will also be covered in this overview document.

6. SEPA Initiatives noted in period November 2014 – May 2014

General Initiatives

6.1.1 Germany – Partnership of MasterCard and three MNOs to simplify mobile payments (February 2014)

(Source: Finextra and MasterCard press release, 25 February 2014)

MasterCard announced a collaboration between Deutsche Telekom, Telefónica Deutschland, Vodafone and MasterCard's payment processing and trusted service manager subsidiary Trevica to create a new mobile platform and to accelerate the development of mobile payments in Germany. The three mobile operators represent 80% of mobile phone customers in Germany.

The card company states that through this platform, every bank in Germany working with MasterCard will be able to shorten the time to market to offer mobile payments to their customers through a single integration point via Trevica platform, rather than having to form separate agreements with MNOs individually.

6.1.2 Poland - Orange Polska and mBank create a mobile retail bank (March 2014)

(Source: mBank press release, 19 March 2014)

Orange Polska and mBank announced an agreement according to which a mobile retail bank will be created for users of smartphones and tablets. The financial services will be provided under the Orange brand. The start of the offer is planned for the second half of 2014.

The offer will be aimed at individual customers, as well as small and medium-sized enterprises. It will include mobile payments, current accounts, loans, deposits, and credit and debit cards.

Orange Polska will be responsible for marketing and the acquisition of customers to this joint venture, while mBank is going to provide banking services to the customers. For this purpose the bank will establish a new branch that will be part of its existing structure.

Mobile Contactless Payments (MCP) Initiatives

6.1.3 France - Orange and Visa working together on introducing NFC m-payments (November 2013)

(Source: Finextra, 08 November 2013; NFC World, 7 November 2013)

The MNO Orange announced to work together with Visa to roll out a mobile contactless payments service across France under the Orange Cash brand name. A Visa prepaid card will be loaded onto all Orange NFC SIM cards. The MNO had already started to roll out NFC-enabled SIMs to its 27 million customers across France in 2012.

Customers will then be able to download an Orange Cash app and load a pre-paid account. With this set-up completed, Orange customers will be able to make payments of under 20 EUR by just tapping their handsets against a Visa Paywave terminal. For a payment of over 20 EUR, the customer will be asked to enter a secret code it had chosen on beforehand.

Beside the possibility to pay via NFC, customers will be able to send and receive money, make secure transactions online using a one-time card number via the Orange Cash app.

Orange Cash will be introduced in Strasbourg and Caen in early 2014, and would be followed by a nationwide roll-out in the second quarter of 2014.

The MNO further reported that 40 percent of phones sold by Orange in France are NFC-enabled.

6.1.4 France - Orange Cash launches NFC mobile payment service in Strasbourg and Caen (February 2014)

(Source: Finextra and Orange press release, 13 February 2014)

The MNO Orange and Visa Europe announced the commercial launch of Orange Cash in Caen and Strasbourg, two of the cities with the highest use of contactless payments in France. With this launch Orange would become the first MNO in France to offer mobile contactless payments to its customers.

Orange customers who have a NFC smartphone compatible with Orange Cash need to go into an Orange store. Once the app has been downloaded, users can then activate this service irrespective of the bank of the Orange customer.

The Orange Cash application is based on a prepaid account that customers can top up via any debit or credit bank card. Once the app has been topped up, customers can use their smartphone in any retail outlet worldwide that accepts Visa contactless payments.

To make a payment, users place their mobile phone on a payment terminal that accepts contactless payments. A passcode chosen by the user will be required for any payment over the contactless limit. Users can also check their transactions in real time and their account balance, which is instantly updated.

Orange Cash customers will have access to exclusive offers from a number of French retailers. These retailers can be located by using the application's GPS function. Once the customer has activated the service through this app, the retailers will then share special offers and promotions available at their shops.

The MNO further stated that the service will be progressively rolled out throughout France in 2014.

6.1.5 France - BNP Paribas rolls out NFC payments (March 2013)

(Source: NFC World, 31 March 2014)

The French banking group BNP Paribas announced that its Kix NFC payments service is now available to customers across France, following its introduction in the city of Strasbourg in January 2013.

The service is available on 25 Android NFC phones and five Windows Phone 8 devices and is open to customers of BNP Paribas Mobile, Orange, SFR and Sosh.

Kix allows customers to make purchases at any contactless-enabled merchant locations. Customers can sign up for the service at any of the 2.200 BNP Paribas branches in France or by visiting the bank's website.

6.1.6 Germany - Deutsche Telekom launches mobile payments service (May 2014)

(Source: Telecoms.com, 7 May 2014)

The telecommunications group Deutsche Telekom announced the launch of a mobile wallet service called MyWallet in Germany and further stated to extend this service to Slovakia in mid-May and in Hungary later in 2014.

The MyWallet service stores customer data on an NFC enabled SIM card. The MyWallet app is available for Android smartphones and can be downloaded for free from Google's Play Store. Deutsche Telekom stated that there are already 35.000 merchants in Germany and more than 1,6 million merchants worldwide that will support MyWallet payments.

The company has also launched a MyWallet plastic payment card, allowing subscribers to store funds on a prepaid MasterCard. Subscribers without compatible handsets can use an NFC sticker to attach to the back of their devices in order to use their smartphone as a MyWallet card.

6.1.7 Italy - Telecom Italia and Visa Europe announce agreement on mobile payments (November 2013)

(Source: Press release Telecom Italia, 12 November 2013)

Telecom Italia announced that it had signed a strategic agreement with Visa Europe to boost the payment for goods and services using a wide range of popular mobile handsets.

With this agreement, the two companies will make mobile payments services available to the more than 31 million Telecom Italia customers across Italy. As for Visa Europe, this agreement is part of its vision to reduce the use of cash at the point of sale.

The new service, building on pilots carried out in the Milan area in 2012, will allow consumers with selected smartphones to make contactless transactions at enabled POS terminals across Europe. Telecom Italia will also install contactless terminals in their stores across Italy.

TIM and Visa will also launch services supporting P2P payments to enable money transfer from smartphones to other people, and e-commerce payments allowing customers to shop online with their mobile phones.

A Telecom Italia-branded Visa card, designed in partnership with the Italian bank Intesa Sanpaolo, will be offered to Telecom Italia customers having smartphones having with NFC technology. The card will be launched in 2014.

The Visa contactless payments service will form the core of the Telecom Italia -branded "mobile wallet", an open digital wallet created by Telecom Italia to host and support services from a wide range of partners including financial institutions, retailers, transport and public utility companies.

Telecom Italia estimated that within 2014 there will be over 14 million NFC-enabled smartphones in circulation in Italy and, in less than two years, over 10% of users will make extensive use of multiple services that will be available thanks to this technology.

6.1.8 Luxembourg - Digicash launches Beacon mobile payments using SEPA Credit Transfer (March 2014)

(Source: BusinessWire.com, 14 March 2014)

The bank-led mobile payment scheme Digicash announced the launch of a pilot-project using the Beacon model in Luxembourg. Digicash Beacon devices at the POS do combine the Bluetooth, NFC and QR code technologies.

For payers, this new feature is integrated with Digicash apps that are issued by retail banks. Users who want to pay by Digicash do not need to link a credit card or to top-up a wallet. Payments are made via SEPA Credit Transfers from the payer's current bank account.

Digicash is testing this new Digicash Beacon solution with three Luxembourgish banks BCEE, POST and BIL and with several retailers (CORA supermarkets, Apple Premium reseller Lineheart and some convenience stores). A large-scale roll-out is planned for the second half of 2014.

The Beacon wireless data transmission model had been announced by several global players as the customer experience revolution at the POS. As for the Digicash Beacon set-up, the required payment-related data is transmitted automatically to the payer's smartphone when the phone is held close to the device. Terminals at the POS use the Bluetooth Low Energy (BLE) technology, as well as NFC and QR codes, automatically providing the customer with the best user experience based on the features of his/her smartphone.

6.1.9 Netherlands - Rabobank prepares commercial NFC m-payments service (November 2013)

(Source: Finextra, 11 November 2013; NFC World, 13 November 2013)

Rabobank announced to prepare a Netherlands-wide commercial launch of a NFC mobile payments service in 2014.

Rabobank customers with a NFC-enabled mobile phone will be able to apply online for so-called 'mobile payment cards'. The customers can then make low-value payments through their mobile phones at stores having contactless POS terminals.

It was further reported that Rabobank was still in the process of deciding on whether to use a NFC SIM card or a secure element embedded on the mobile phone to store the customer's payment credentials.

6.1.10 Netherlands – launch of Vodafone Wallet and Visa SmartPass service (March 2014)

(Source: Visa Europe press release, 27 March 2014)

Vodafone and Visa Europe announced the launch of the Vodafone Wallet and the Visa SmartPass service in the Netherlands. This announcement follows on previous launches in Spain and Germany.

SmartPass will offer consumers in the Netherlands contactless payments by using their mobile phone. The service will work on any contactless payment terminal in Europe that displays the V PAY logo. Users will also be able to transfer money to each other's SmartPass accounts using the service.

The Vodafone SmartPass payment service has been developed with Visa and is based on a prepaid Visa solution. For transactions under 25 EUR, customers can pay by simply touching their mobile phone to a contactless terminal showing the V PAY logo. For transactions over 25 EUR the customer will be asked to enter a passcode to authorise their purchase.

Vodafone customers with a compatible NFC-enabled handset that has been certified for the SmartPass service will be able to sign-up to SmartPass through an easy in-store process. Customers without a supported NFC handset are given the option to attach a Visa contactless (NFC sticker to their mobile device, which will enable the service.

Vodafone further announced plans to substantially expand its Vodafone Wallet service to include services such as public transport tickets, e-tickets and contactless keys. Both companies further indicated to launch the SmartPass and the Vodafone Wallet service in the UK later in 2014.

6.1.11 Norway - DNB and Telenor to roll out national NFC payments platform (November 2013)

(Source: Finextra, 19 November 2013; DNB, May 2014)

The Norwegian MNO Telenor and the Norwegian bank DNB announced the launch of Norway's first nationwide mobile payments service, called Tap2Pay.

The joint venture (JV) between Telenor and DNB established back in 2008, firstly launched a pilot project in Oslo in 2011. In August 2013, the JV presented the Valyou NFC mobile wallet. The national launch will take place during the summer of 2014.

Besides DNB, other Norwegian banks have signed to offer this service and are in the process of onboarding the Valyou TSM and wallet platform.

For the commercial launch, the JV selected Giesecke & Devrient to provide remote management of the secure element and NFC SIM cards to the platform. The French company Gemalto provides the TSM solution as well as the integration and deployment support to offer a mix of mobile contactless payments at the point-of-sale, alongside coupons, loyalty programs and transit ticketing.

This technical set-up will act as a single connection point based on which MNOs, banks, public transport authorities and other service providers can provide and manage services across an interoperable eco-system.

6.1.12 Poland - Orange supports debit card payments on its NFC mobile payments solution (April 2014)

(Source: NFC World, 29 April 2014)

Orange Poland announced the launch of a new service called NFC Pass which is built on its existing Orange Cash platform to enable customers to make debit card payments using their NFC technology supporting mobile phone.

NFC Pass is currently available to subscribers having a current account at the Polish bank mBank and a NFC mobile phone running on Android. This payment service is expected to be added later in 2014 for Windows Phone devices with both travel and access applications to be added in the future.

So far, mBank customers using the services of Orange could do contactless payments with a mobile phone combined with a prepaid card account. With NFC Pass, the NFC mobile payments can now be made with a debit card account or based on the funds available on the account of the mBank customer.

6.1.13 Spain - La Caixa launches commercial mobile NFC payments system (December 2013)

(Source: CaixaBank press room, 16 December 2013)

The customers of the Spanish bank la Caixa will be able to combine all their cards on their mobile devices, and use them to make purchases at retailers and merchants fitted with contactless POS terminals anywhere in the world.

The bank launched a mobile payment service in Spain using NFC technology with the support of the major MNOs Telefónica, Vodafone and Orange as well as by Visa Europe. Through the support of these partners, the mobile payment service from this bank will be available to an extensive number of users from the start. Telefónica, Vodafone and Orange together represent more than 80 percent of the Spanish mobile telecommunication market.

La Caixa forecasted that with the launch of mobile based payments, the number of mobile payment users would exceed 100.000 in one year. The bank will start with the service in January 2014 via a launch for selected customers of the three MNOs. The service is due to be fully operational and available by February 2014.

The new mobile NFC payment service will allow la Caixa customers to use their mobile devices to make purchases at merchants and retailers without having to attach stickers or any other accessories to their handsets.

Thanks to an agreement between the bank and the MNOs, all bank card data will be stored encrypted and securely on the mobile phone's NFC SIM card.

Users start the process by contracting the bank's mobile payment service online. The terminal's NFC SIM card will then automatically download the customer's card information, which will be managed via the wallet application, serving as a virtual wallet that stores the user's cards.

There are currently more than 300.000 contactless-enabled POS terminals in Spain. La Caixa operates 110,000 contactless POS nationwide via its Comercia Global Payments subsidiary.

A customer does not need to enter a PIN for any purchase under 20 EUR. Over 20 EUR customers will always have to enter their PIN. Users can also configure the service to require PIN entry for all contactless purchases.

6.1.14 Spain - Banco Sabadell starts trial with Host Card Emulation (March 2014)

(Source: Finextra, 04 March 2014)

Banco Sabadell announced to have started with pilot trials of a mobile wallet using Host card Emulation (HCE) technology from Carta Worldwide. Through the combination of mobile device software with secure cloud processing, HCE eliminates the need to deliver and manage NFC credentials on the mobile handset (embedded in the handset itself or on the SIM card).

Carta's HCE technology provides full lifecycle support for cardholder credentials and transactions across devices with the Android operating system KitKat 4.4. It also supports NFC-based High Value Transactions (HVT) with mobile PIN.

Banco Sabadell had been working with MasterCard in 2013 running small-scale trials of HCE as a bank-controlled mechanism for rapid onboarding of customer cards.

The Spanish bank stated that the most notable feature of this pilot is how easy it is for users to add their credit cards to their mobile phone without having to manipulate any physical secure element or to rely on third party service providers.

6.1.15 UK - Weve and MasterCard combine forces in UK contactless mobile payments (February 2014)

(Source: MasterCard press release, 6 February 2014)

Weve, the joint venture between three major UK mobile operators, and MasterCard announced their partnership to accelerate the development of a far-reaching UK contactless mobile payments platform.

Under the terms of this partnership, MasterCard will provide technology and integration services to banks and financial institutions wishing to use Weve's payments platform for offering contactless mobile payments to their customers.

The partnership announcement further stated that to date, banks wanting to get involved in mobile payments have had to engage in complex development and integration projects, which often only address only one area of the market. The aim of this partnership is to remove much of the complexity to ensure that financial institutions and mobile operators can more easily set up and run mass-market contactless mobile payments in the shortest possible time.

With the UK having around 300.000 retail outlets now accepting contactless payments, the partnership sees the UK as an ideal market to further adoption of contactless payments through mobile phones.

Mobile Remote Payments (MRP) Initiatives

6.1.16 Belgium – Sixdots initiative for fast and safe mobile and online shopping (November 2013)

(Source: Sixdots press releases, 8 November and 18 December 2013)

The Belgian MNO Belgacom and the bank BNP Paribas Fortis announced a joint venture for the set-up of 'Belgian Mobile Wallet SA/NV' to support online and mobile trade in Belgium.

The establishment of this joint venture follows the announcement at the start of 2013 to launch a Belgian standard for payments via smartphones during the spring of 2014. This will allow consumers to use their smartphones to pay for goods and services or to exchange coupons. This service will be commercially launched under the brand name Sixdots representing a six-digit PIN code that will be used for making online and mobile payments in Belgium.

Sixdots will operate as an open platform, accessible to all consumers and merchants in Belgium and will be free of charge for the consumer. The app will be available to all smartphone users having a bank card from any bank established in Belgium and having a mobile data subscription from any Belgian telecom operator. Merchants will be charged a small fee for each transaction via Sixdots.

Sixdots is built upon the digital payment wallet solution MasterPass from Mastercard. Sixdots will take care of the security and integration of this payment solution in order that the consumer does not have to enter any credit card details on the merchants' websites or does not have to have a payment card reader at hand.

The underlying technical platform will be operational in January 2014, when a pilot project will be launched with a limited number of merchants and users. The commercial launch is scheduled for spring 2014. Later on in 2014, Sixdots will be expanded with virtual tickets, discount coupons and loyalty programmes.

At the end of the December 2013, 9 Belgian banks and 3 Belgian mobile network operators agreed to promote the Sixdots platform.

6.1.17 Belgium – Launch of Bancontact launches mobile payment app (May 2014)

(Source: Bancontact press file, 15 May 2014; Belgian EPC Mobile Channel Working Members)

Title / Name of Initiative:

BC/MC App (Mobile Payment)

Geographic Coverage / Region:

Belgium

Partners Involved:

Bancontact/Mister Cash payment card scheme and the following 16 banks: ABK Bank, Argenta, AXA Bank, Bank J. Van Breda, Belfius, BNP Paribas Fortis (including Hello Bank! and Fintro), bpost bank/bpost banque, CBC Banque, CPH Banque, Crelan, Deutsche Bank, ING België, KBC Bank, Keytrade Bank, Record Bank and VDK Spaarbank.

Size:

With 16 banks operating in Belgium offering the BC/MC app, 99 percent of the Bancontact/Mister Cash cardholders can download the BC/MC app.

Description of Initiative:

The application allows a Bancontact/Mister Cash cardholder the following services:

- Person-to-person payments:

The payer scans with his/her mobile phone a QR code created by the payee on the payee's phone. The payee can create such QR code for an amount up to 250 EUR. The payer needs to enter a PIN after the payer has scanned the QR code. The payer and the payee receive an on-screen payment confirmation.

- Online payments in web shops:

The customer shops on his/her desktop/laptop and selects the Bancontact/Mister Cash button on the check-out page of the web shop. Web shops that accept mobile payments with Bancontact/Mister Cash will give the customer the option to pay by card or the app.

When the customer chooses to pay via the app, the web shop will present a QR code on the check-out webpage on the desktop/laptop of the customer. The customer scans the QR code and enters a PIN code to authorize the payment.

- Pay a bill at restaurants or in shops:
- The cashier of the restaurant or shop provides a paperbased purchase receipt or invoice including a QR code. The customer opens the app on the smartphone, selects the option 'pay' and scans the QR code.

The customer receives the option to pay by card or with the app and chooses to pay with the app option. The customer checks the displayed payment details and enters a PIN code to authorize the payment.

Infrastructure(s) used for Initiative:

The Bancontact/Mister Cash app is available for smartphones running on iOS and Android.

The card payment infrastructure of BC/MC.

SEPA Compliant / Underlying SEPA Payment Instrument:

Bancontact/Mister Cash is a SEPA card compliant scheme.

Main Advantages:

Ease of use of the app for Bancontact/Mister Cash cardholders.

The customer can use the app for P2P payments, online payments and payments in face-to-face situations with retailers.

Main Challenges:

None reported.

Customer Feedback:

None reported.

Roll-out Plan / Status:

The app went live as of 15 May.

Bancontact/Mister Cash further announced a cooperation agreement with Sixdots which is developed to be an open Belgian mobile wallet that focuses on authentication and payments. Sixdots will also offer other services for both merchants and consumers such as loyalty programmes, e-coupons and e-ticketing.

The cooperation between Bancontact/Mister Cash and Sixdots is seen as highly complementary for both organizations. Sixdots will be able to expand its reach by offering Bancontact as a payment method on its payment platform. Bancontact will be able to offer its customers easy access to authentication and new mobile Sixdots services.

6.1.18 France - McDonald's rolling out remote mobile order and payment system (November 2013)

(Source: MobilePaymentsToday.com 13 November 2013; Finextra, 14 November 2013)

The fast food chain McDonald's announced to extend a mobile ordering and PayPal payment app programme across its French network following a successful trial at 80 establishments.

With this app, consumers can place an order remotely and pick up their purchase at a dedicated counter, avoiding the line in the main food hall and reducing waiting time. The app shows real-time product availability at the chosen store and gives a QR code and PIN which is entered in a special terminal at the counter to complete the transaction using PayPal.

McDonald's stated that this system would be available in 1.100 restaurants in France by the end of 2013, representing 80 percent of the food chain's restaurants in the country.

France is McDonald's second most profitable market and may be seen as an useful pilot country to work out its mobile strategy before rolling it out in other countries.

6.1.19 Spain - Orange Cash launch (February 2014)

(Source: Finextra and MasterCard press release, 19 February 2014)

The MNO Orange announced the launch of Orange Cash service in Spain which is based on a rechargeable prepaid MasterCard card that can be used for mobile payments or as a traditional payment card. A Orange Cash user is able to make online payments, send funds to the mobile phones of other Orange Cash users and by using the traditional prepaid card, pay any merchant or withdraw cash at ATMs accepting MasterCard worldwide.

The use of Orange Cash does not require a bank account and it works with all the telephone numbers of every Spanish MNO. The mobile app is compatible with mobile phones running on the operating systems Android and Apple iOS.

6.1.20 Switzerland – Zurcher Kantonalbank offers QR-based mobile payments (March 2014)

(Source: EPC Mobile Channel Working Members)

Title / Name of Initiative:

Zurcher Kantonalbank QR Zahlung

Geographic Coverage / Region:

For customers of Zurcher Kantonalbank and at a later stage customers from Credit Suisse.

Partners Involved:

-

Size:

-

Description of Initiative:

Currently customers of Zurcher Kantonalbank can now make mobile payment between themselves based on scanning of QR-codes with smartphones running on the operating systems Android and Apple iOS. This service will also become available for Credit Suisse customers in June 2014.

The payer scans the QR-Code displayed on the smartphone of the payee. The payer adds the amount and confirms the payment. Within seconds the funds have been transferred and both the payee and the payer get an immediate payment confirmation.

Infrastructure(s) used for Initiative:

- Infrastructure of Zurcher Kantonalbank and Credit Suisse
- Apple Store
- Google Play Store

SEPA Compliant / Underlying SEPA Payment Instrument:

-

Main Advantages:

It offers a fast, easy and real-time money transfer.

Main Challenges:

The real-time money transfer, security and legal aspects.

Roll-out Plan / Status:

March 2014: payments between customers of Zurcher Kantonalbank

June 2014: payments from/to customers of Zurcher Kantonalbank to/from customers of Credit Suisse.

6.1.21 UK – Barclays’s solution Pingit allows big firms to send payments to customers (November 2013)

(Source: Finextra and Barclays press release 19 November 2013)

Barclays declared to have added a feature to its Pingit application which gives large corporates the ability to send funds to people through their mobile phone numbers.

Pingit had initially been launched as a person-to-person payments tool and had already been extended to let people pay bills and to make purchases through their phones.

Companies such as insurers, retailers and utilities can connect into Barclays' existing file gateway channel to send electronic payments directly into an individual's Barclays Pingit account - without having to know their bank account or card details.

Payments can reach any UK mobile phone number, regardless of whether they are already registered Barclays Pingit users, and non-registered users will be notified by text message with details of how to register to receive payment.

6.1.22 UK – Group of UK banks to support Zapp mobile payments (January 2014)

(Source: Zapp press release and Finextra, 15 January 2014)

Zapp announced partnerships with the banks HSBC, first direct, Nationwide, Santander and Metro Bank to offer Zapp mobile payments to their respective customers. Set up by VocaLink in 2013, the Zapp application makes use of the Vocalink’s Faster Payments infrastructure.

Zapp provides consumers real-time payments on their mobile phone banking applications and is integrated into the mobile banking applications of the concerned financial institutions. The customers of these banks will be able to pay by using just their existing bank account, a smartphone and a mobile banking app.

Zapp transactions work through secure digital tokens, which mean customers do not need to reveal any of their financial details (including bank account details) to merchants. With Zapp integrated into the mobile banking app, only the financial institutions know these account details.

6.1.23 UK – Payments Council confirmation of new mobile payments service (March 2014)

(Source: Payments Council press release, 10 March 2014; Finextra, 2 April 2014)

The Payments Council announced that its new secure way for consumers to pay using just a mobile number will be called Paym (pronounced “Pay Em”). Paym is an industry-wide collaborative project and would have the potential to become the first service to link up every current account in the UK with a mobile number.

Paym will be integrated into the customers’ existing mobile banking or payment apps as an additional way to pay, making it possible to send and receive payments using just a mobile number. This payment service would be capable of moving funds directly from account to account, without the need for sort codes or account numbers.

Final testing for Paym was reported to be on track with the announcement of the launch date being scheduled in April 2014 (the formal launch date was set on 29 April). At the launch itself, customers of nine banks and building societies - Bank of Scotland, Barclays, Cumberland Building Society, Danske Bank, Halifax, HSBC,

Lloyds Bank, Santander and TSB Bank - will be able to use the new service. These nine institutions will offer their customers the opportunity to register their mobile number and to select the current account before the service goes live.

The Payments Council further stated that Paym will expand further later in 2014 with the commitment from Clydesdale Bank, first direct, Isle of Man Bank, NatWest, RBS International trading as NatWest, The Royal Bank of Scotland and Yorkshire Bank to join.

M-Wallet Initiatives

6.1.24 Belgium - Seamless mobile wallet becoming available in Belgium (November 2013)

(Source: Finextra, 14 November 2013)

The Swedish mobile payments company Seamless announced to have concluded agreements in Belgium with the bank bpost (linked to the Belgian postal services company) and the fast food chain McDonald's.

From spring 2014, bpost customers will be able to download the Seamless Seqr app and link it to their bank account, letting them make in-store and online purchases using their mobile handsets.

Users just have to scan a QR code or tap the mobile phone via NFC technology at the checkout at partner merchants before approving the payment by entering their PIN. Seamless stated that its system is independent from existing payment structures such as card networks.

McDonald's, which already works with Seamless in Sweden and Kuwait, is the first merchant partner promising to accept Seqr payments at all of its Belgium restaurants at the wallet launch in the spring of 2014.

6.1.25 Estonia - Mobile Network Operator and Estonian banks launch NFC payments pilot (November 2013)

(Source: NFC World, 4 November 2013; Paymenteye, 5 November 2013)

The MNO EMT announced the start of a pilot testing a NFC mobile wallet in Estonia, in partnership with Danske Bank, Nordea Bank, SEB Bank and Swedbank and the retail group Tallinna Kaubamaja.

The pilot called 'Bank Payment Card in Mobile' will involve 150 people who will use their NFC phones to pay for goods in the shop sections Ilumaailm ('Beauty World') and Toidumaailm ('Food World') of the retailer Kaubamaja, at Selver stores at Järve and Pirita, and at several cafes. The pilot will test a prototype of the Estonian NFC Mobile Wallet service named "My Wallet".

The bank cards of the participants in this pilot will be stored on a secure element of a NFC SIM card.

EMT stated that the main goal of the NFC pilot project is to test the know-how and process models gathered during the applied research phase as well as to test the prototype of a secure mobile wallet and its convenience of usage in real life, and the possibilities to use the NFC technology in retail checkout payment solutions.

EMT further indicated that the pilot will last for three months. The results would then be analyzed and a decision would be made on the future of the service.

6.1.26 Germany - Mobile Network Operator E-Plus to launch NFC mobile wallet (November 2013)

(Source: NFC World, 6 November 2013)

The German telecommunication company E-Plus announced to launch a mobile wallet in the spring 2014. This service would enable customers to make payments with a NFC phone as well as collect and redeem loyalty points and discount vouchers using QR codes.

The platform would be open to a range of card issuers and will be launched with a Maestro debit card issued by Wirecard Bank, a subsidiary of technology provider Wirecard. The Maestro card would be available to the user immediately after the registration on the handset.

Customers will be able to make payments at one of the 30.000 contactless terminals in Germany. The mobile wallet app will show to customers nearby locations that accept NFC payments as well as merchants providing special offers. Location-based couponing services would be incorporated in the service.

6.1.27 Spain -: Launch of 'iupay!' wallet (February 2014)

(Source: iupay! via Spanish EPC Mobile Channel Working Members)

Title / Name of the Initiative:

iupay! is a cloud-based secure wallet for e-commerce payments.

Geographic Coverage / Region:

The initial launch has Spain as focus country, but interoperability and alliance with other national wallets is in progress.

Partners Involved:

iupay! is backed by the Spanish financial institutions Bankia, BBVA, CaixaBank, ING Direct, Banco Popular, Rural Saving Banks associated with Banco Cooperativo, Banco Sabadell and Banco Santander. Redsys carries out the development and performs all operational and processing functions.

Size:

Currently Over 13.000 merchants accept iupay! as a payment method.

Description of the Initiative:

iupay! is a digital wallet that enables its users to store all their cards to make on-line purchases (domestic and international). Iupay! service is open to all acquirers and issuers interested in using the service.

iupay! aims to simplify the payment process for its users, by completing online purchases in a swift way, and by enabling them to make payments more easily and securely. The wallet has been created to process national transactions. The next step to offer the users to make payments outside Spain.

Infrastructure:

The iupay! platform is based on industry standards to allow an easy integration with other services. The architecture supports the confidentiality, integrity, auditability and non-repudiation of the information. The infrastructure is based on high-responsive and high-availability platforms. The platform is able to support additional services.

SEPA Compliant / Underlying SEPA Payment Instrument:

-

Main Advantages:

The main advantages of iupay! wallet are:

- The card data is not stored in the iupay! wallet. The full card data is retrieved from the financial institution which issued the card.
- The ability to deal with domestic cards, in addition to international brands
- Value-added services

Main Challenges:

The interoperability of the wallet is a key to achieving the widespread use of iupay!, so it is necessary to reach agreements with other payment processors in order to allow customers to shop around the world.

Customer Feedback:

Following are some of the headlines published in the press:

- “Banking industry launches the iupay virtual wallet: secure and convenient” (El comparador 19/02/14)
- “iupay!: pay securely on the Internet with your digitized cards” (Capitalibre 03/14)

Roll-out Plan / Status:

iupay! is currently functioning with thousands of clients and merchants enrolled in the service. More banks are planning to join the service and alliances with other payment processors are in the development stage towards making the wallet interoperable.

6.1.28 UK - KFC adding PayPal feature to mobile wallet (December 2013)

(Source: MobilePaymentsToday.com, 4 December 2013)

AIRTAG being a provider of mobile shopping solutions, announced a collaboration with PayPal to bring new features to the KFC Fast Track mobile wallet. Launched by KFC UK & Ireland and AIRTAG earlier in 2013, KFC's Fast Track services allows customers to order and pay in advance for their meals before they arrive at the restaurant. Fast Track users would now be able to log in and check-out with PayPal making the transaction faster.

With the new features, KFC customers can create a Fast Track account using their existing PayPal account details by entering their username and password.

Mobile POS (mPOS)

6.1.29 Finland – Cooperative banking group bank OP-Pohjola agrees mPOS with Monitise (January 2014)

(Source: Monitise press release, 22 January 2014)

The Finnish cooperative banking group OP-Pohjola announced to have signed a three-year deal with the UK-based mobile money specialist Monitise to provide multi-language mPOS services for the banking group's small business and merchant customers. OP-Pohjola is the first Finnish bank to offer a mPOS service.

The new service will enable the bank's small business and merchant customers to take card payments and view recent transactions via the mobile phone. OP-Pohjola Group merchant customers will also be able to generate digital tax credit receipts to reclaim up to half of the value of qualifying invoices as part of a government-backed scheme in Finland.

The service will be available for the iOS and Android platforms, and in Finnish, Swedish and English languages.

6.1.30 France - Payleven launches mPOS solution trial (November 2013)

(Source: MobilePaymentsToday, 8 November 2013)

The German mobile payments mPOS company Payleven, which provides a wireless card reader that connects to mobile devices via Bluetooth, launched a trial in France. Its chip-and-PIN solution is already available in nine European countries.

The company stated to sell the mPOS for 49 EUR and the product could now be bought online through Apple stores and the company's website. The company announced the plan to sell its mPOS in Apple stores soon.

Payleven further announced that it aims at offering its mPOS solution to small and medium-sized business owners as well as individuals such as taxi drivers, restaurant owners and market vendors.

The company indicated that 45 percent of all payment transactions in France are based on cards. It wants to push this trend further to also enable all small and medium-sized businesses to accept card payments.

6.1.31 Netherlands - Ogone launches mPOS payment solution (January 2014)

(Source: Paymenteye, 31 January 2014)

Ogone announced the launch of a mPOS service for the Netherlands and has been designed for businesses 'on the move' such as tradespeople, delivery services, market traders and transport operators. The company believes that this payment solution will benefit all businesses who want to take payments on the spot.

This solution is based on Ingenico's mPOS technology combined with easycash's processing solution. The platform consists of a chip & PIN debit & credit card reader that can connect with iOS and Android

smartphones and tablets. Merchants have to download the Ogone mPOS app on their smartphone and use Bluetooth to couple it with their Ogone mPOS device.

By using this device, merchants can offer their customers an alternative payment method to cash. The company believes this will help small and larger businesses to increase sales by accepting payments in mobile situations. The Ogone mPOS solution enables merchants to provide their customers with personalized, detailed e-receipts and offers possibilities of building a customer database which can be used to develop e.g., loyalty programmes.

The company believes that with its device, merchants will benefit from faster payments and a better cash flow.

6.1.32 Sweden - Handelsbanken selects VeriFone as mPOS product provider (February 2014)

(Source: PaymentsJournal and Finextra, 26 February 2014)

The Swedish financial institution Handelsbanken announced to choose VeriFone for providing a mPOS product. With this agreement, Handelsbanken will offer merchants a branded chip and PIN reader and a linked application that can be used on smartphones and tablets.

6.1.33 UK - Barclaycard steps into mPOS market (February 2014)

(Source: Finextra and Barclaycard press release, 18 February 2014)

The card company Barclaycard presented an app & card reader solution for the UK mPOS market which will be launched in the spring of 2014. The service called Barclaycard Anywhere focuses on smaller merchants and large firms with mobile sales forces to allow them to accept on-the-spot card payments.

The company is using a white label chip and PIN reader from vendor PayLiquid that can be attached to a smartphone or tablet. A dedicated app will process payments via 3G or wifi connection. Customers will get receive their receipt by e-mail or by SMS message.

The app also offers reporting features helping firms to track transactions and providing information about payments trends, sales performance and other business intelligence.

Other companies such as Lloyds, iZettle, Payleven, Intuit and PayPal have launched as well mPOS services for the UK market.

7. Non-SEPA Initiatives noted in period November 2013 – May 2014

General Initiatives

7.1.1 Thailand – National MNO to launch NFC payments in Thailand (December 2013)

(Source: NFC World, 4 December 2013; www.totjustpay.com)

The Thai state-owned telecommunications provider TOT announced to launch a NFC mobile payments service in Thailand in 2014. The service called Just Pay will include a mobile wallet, an mPOS solution and a web-based mobile customer relationship management (CRM) platform.

The TOT Just Pay Wallet is an application service in which the users can store their various plastic cards (such as debit cards, credit cards, member cards) or other coupons to pay for products and services. There will be on-line bill sending services directly addressed to the application users (e.g., for utilities).

A tablet device will be used for the Just Pay mPOS. It can manage the staff's and customers' information by linking sale and store statistics to the Customer Relationship Management (CRM) platform. Via a device attached to the mPOS, payments can be accepted from plastic cards and from the TOT Just Pay Wallet (via a NFC Reader device).

The third service is TOT Just Pay CRM to support shopkeepers in managing their products, inventory, customers, card programmes, loyalty programmes and branches.

Mobile Contactless Payments (MCP) Initiatives

7.1.2 Australia – Two Australian banks revealing NFC payment services (December 2013)

(Source: Finextra, 12 December 2013)

Commonwealth Bank of Australia (CBA) announced the release of a mobile NFC-based payments application for Samsung handsets. CBA will apply the PayPass product from MasterCard on the embedded secure element of the Samsung Galaxy S4 allowing customers to make NFC payments at 220.000 Australian and 1.6 million merchant locations with contactless terminals around the globe. CBA further stated that an iOS version of the application will be made available at the end of January of 2014.

MasterCard and Samsung, which formed partnerships with financial institutions and mobile network operators worldwide, plan to complete similar service rollouts in 2014 such as in Turkey, Russia and Ukraine in the first quarter of 2014.

Another Australian bank Westpac declared to abandon plans for sticker-based payments in favour of a fully-fledged mobile roll-out early 2014. This bank cooperates with Visa to bring contactless payments to NFC-supporting ready Android phones in 2014.

Both Australian banks are building on the successful introduction of contactless debit card payments in Australia. Westpac reported that more than 50 percent of its debit card transactions are contactless.

7.1.3 Brazil – Brazilian Bank Bradesco and MNO Claro to launch NFC payments (March 2014)

(Source: NFC World, 26 March 2014)

The mobile network operator Claro and Bradesco, a major Brazilian bank, announced the commercial launch of a NFC mobile payments service in the state of São Paulo during the first half of 2014, ahead of a national rollout to reach a combined customer base of 85 million consumers.

Giesecke & Devrient will supply the TSM platforms used by both Claro and Bradesco and also provide Claro with SIM cards to store both Visa and MasterCard account details, and its mobile wallet software. This will be pre-installed on new Claro NFC mobile handsets and will also be available for download on existing NFC phone owners. Customers will be able to make NFC payments at any of the 200.000 contactless payment POS in Brazil.

7.1.4 Canada - Royal Bank of Canada launches NFC payments in the cloud (January 2014)

(Source: NFC World, 21 January 2014)

The Royal Bank of Canada announced the introduction of an NFC mobile payments service that stores customers' card details in the cloud. The new RBC wallet is available to customers with a Samsung Galaxy S III or Samsung Galaxy S4 on the network of the MNO Bell, with support for other devices coming during the spring of 2014.

RBC Wallet users can use the service to make payments at any location in Canada having a Visa PayWave or Interac Flash contactless POS terminal.

There will be a wallet option within the RBC mobile app. The consumer just have to select that option to be downloaded. Once the download is completed, the customer needs to determine a passcode to be used when making a payment at a POS.

When the customer wishes to make a payment, he/she opens the RBC mobile app and selects the payment card the customer wants to use. The customer enters the passcode assigned to the selected payment card on the mobile phone and taps 'Continue'. The customer holds the mobile phone over the contactless terminal to finalise the payment. At the back-end the data is transmitted, encrypted and decoded on the device at the POS but all the consumer's real data are stored in servers that sit behind the RBC firewall.

The bank originally planned to launch NFC payments in partnership with Bell, using NFC SIMs to store card details, but then switched direction in mid-2013 to use the new internally developed, patent-pending RBC Secure Cloud platform instead.

7.1.5 Japan - NTT Docomo and MasterCard bring global mobile NFC payments to Japanese users (October 2013)

(Source: Finextra and NFC World, 29 October 2013)

The Japanese telecommunication company NTT Docomo announced to have joined forces with MasterCard to enable NTT Docomo's customers to make contactless mobile payments around the world.

From 5 February 2014, Japanese users of NTT Docomo's iD mobile credit payment system will be able to make payments at around 1.2 million MasterCard PayPass terminals in over 50 countries. The service, which requires subscribers to have a handset with a contactless chip, will let customers pay using either local currency or yen.

Already in Japan, NTT Docomo's customers can use its iD system to make mobile credit payments via about 500.000 POS terminals in various shops.

Earlier in 2013, MasterCard announced plans to expand its PayPass footprint in Japan with a target to roll out 410.000 contactless terminals throughout the country over the period 2014-2016.

Mobile Remote Payments (MRP) Initiatives

7.1.6 Global - TransferWise launch first peer-to-peer money transfer app (October 2013)

(Source: Paymenteye, 24 October 2013)

TransferWise, an international money transfer platform indicated to have launched the world's first peer-to-peer money transfer application.

The app is free to download and is compatible with the iPhone, iPad and iPod touch devices from Apple. An Android app would be rolled out soon.

This app enables users to transfer money to anyone anywhere in the world between different currencies. TransferWise announces its service as being cost-effective as it would bypasses bank fees.

To set up a payment users simply select currencies, import contact/payment details and upload the amount they wish to transfer. TransferWise then processes the money and sends a final notification when the payment has been completed. Only 0.5% of the transaction is taken by TransferWise.

7.1.7 Singapore - OCBC Bank lets customers send money via Facebook (May 2014)

(Source: Finextra, 12 May 2014)

OCBC Bank announced an additional feature to its mobile app which allows customers to send money to friends via Facebook, e-mail and text message.

In order to send a payment of up to 100 SGD, customers select the Pay Anyone icon within the OCBC iPhone app, chose whether to send via Facebook, e-mail or mobile phone number the funds and then select the recipient from their contact list.

The sender then selects the account from which the payment needs to be made, enters the amount and adds an accompanying message. The recipient's bank account details are not needed.

The sender does have to set a passcode and send it to the recipient, who gets a message - via Facebook, e-mail or SMS - telling the recipient to collect the money.

Funds can be sent to anyone with a bank account at one of the 14 Singapore banks signed up to the national Fast real-time payments system which went live at the start of May 2014.

M-Wallet Initiatives

7.1.8 Canada – Two Canadian banks to launch NFC mobile wallet (November 2013)

(Source: NFC World, 6 November 2013)

The Canadian banks President's Choice Financial and TD Bank Group announced to launch an open NFC mobile wallet called Ugo in 2014.

Consumers will be able to load their TD Visa, President's Choice Financial MasterCard and PC Plus loyalty cards on a NFC SIM card in their BlackBerry or Android handset. TD Bank Group was reported to have discussions with major telecommunication companies to make Ugo available on networks across Canada.

The Canadian retailer Loblaw would make the use of the Ugo mobile wallet service available and has over 1.000 stores in Canada. Subscribers to the wallet service will be able to pay for goods by using their NFC phone at shops equipped with Visa Paywave and MasterCard Paypass terminals across the globe.

7.1.9 China - China Telecom and Chinese banks launching NFC wallet (December 2013)

(Source: NFC World, 3 December 2013)

The MNO China Telecom announced to launch a NFC mobile wallet called 'Tianyi' in China in cooperation with more than a dozen financial institutions. More than 30 million NFC-enabled SIM cards will be distributed in 2014 and customers will be able to choose from over 40 mobile phones that work with the Tianyi mobile wallet.

China Telecom subscribers will be able to use Tianyi to make payments for transportation, dining and shopping. Personal authentication services, airport check-ins and employee ID services are to be introduced in the future.

Financial institutions that have agreed to support the Tianyi service include Bank of China, Agriculture Bank of China, China Construction Bank, Bank of Communications, China CITIC Bank, China Merchants Bank, PingAn Bank, Guangdong Development Bank, China Minsheng Banking Corporation, China Everbright Bank, Shanghai Pudong Development Bank, Postal Saving Bank of China, Bank of Beijing and Bank of Shanghai.

7.1.10 Global - Google with alternative to bypass Secure Element for mobile wallets (November 2013)

(Source: Finextra, 01 November 2013)

Google indicated to have found a way to circumvent mobile network operator (MNO) restrictions on its mobile wallet by introducing support for Host Card Emulation (HCE) in the latest version of its Android operating system. It would remove the need for access to the MNO-controlled Secure Element in the mobile phone.

Google's promotion for its mobile wallet in the USA has faced the refusal of important MNOs to introduce support for Google's payments applications on the Secure Element in the NFC chip.

With Android 4.4, Google introduces new platform support for secure NFC-based transactions through HCE for payments, loyalty programmes, card access, transit passes and other services.

With HCE, any app on an Android device can emulate a NFC smart card and no provisioned secure element (SE) in the mobile device is needed for users to initiate transactions. Apps can also use a new Reader Mode to act as readers for HCE cards and other NFC-based transactions.

Android HCE emulates ISO/IEC 7816 based smart cards that use the contactless ISO/IEC 14443-4 (ISO-DEP) protocol for transmission. These cards are used by many systems today, including the existing EMVCO NFC payment infrastructure. Android HCE requires a NFC controller to be present in the device. Google states that support for HCE is already widely available on most NFC controllers which offer dynamic support for both HCE and SE transactions.

7.1.11 USA - Isis NFC mobile wallet goes live across the USA (November 2013)

(Source: NFC World, 14 November 2013)

With the national launch of the Isis Mobile Wallet, NFC payments are now available to AT&T, T-Mobile and Verizon Wireless subscribers across the USA.

More than 40 Android NFC phones are compatible with the service and new versions of the Isis Mobile Wallet can be downloaded from the Google Play app store. The required NFC compatible SIM cards from AT&T, T-Mobile and Verizon Wireless are freely available.

The Isis Mobile Wallet features a simplified user interface with a clean, white background. The integration with American Express Serve allows Isis Mobile Wallet users to load funds to their American Express Serve account from a US debit or credit card, bank account, or through direct deposit, but also to pay bills online and send money to friends and family using an American Express Serve account.

7.1.12 USA – Wells Fargo steps into Isis Mobile Wallet scheme (December 2013)

(Source: Finextra, 13 December 2013)

The bank Wells Fargo announced that it allows its customers to load their credit cards into the Isis mobile wallet during a pilot test phase of the technology supporting this wallet. This will enable consumers to use their handsets to pay, redeem coupons and present loyalty credentials at the POS terminals.

Wells Fargo joins JPMorgan Chase and American Express in supporting the nationwide launch of Isis, the mobile commerce joint venture between the MNOs AT&T Mobility, T-Mobile USA and Verizon Wireless.

Customers with one of the more than 40 Isis-supporting smartphones available from AT&T, T-Mobile or Verizon Wireless can receive a NFC SIM card from their MNO and download the Isis Mobile Wallet for free from Google Play app store.

Mobile POS (mPOS)

7.1.13 Mexico - AnywhereCommerce to provide mPOS technology to Prosa (December 2013)

(Source: MobilePaymentsToday.com, 4 December 2013)

The Canadian company AnywhereCommerce announced a strategic partnership agreement with the Mexican merchant payments processor Prosa to supply mobile point-of-sale payment technology. Prosa does also provide merchant processing services to other Latin American markets. AnywhereCommerce develops end-to-end mobile payment technology, including acceptance devices, software applications and gateway services.

As a result of the agreement, Prosa will use AnywhereCommerce's gateway solution for accepting credit, debit, cash and gift card payments. The agreement covers the use of AnywhereCommerce's payment acceptance software and its mPOS devices which includes a EMVCo-certified model that can accept both EMV and magnetic-stripe based card payments. The service will also support gift card and loyalty program payments. The services under this agreement operate on Android, iOS and Windows mobile platforms.