

Smart Card & Identity News

Is published monthly by
Smart Card News Ltd

Head Office: Smart Card Group,
Anchor Springs, Duke Street,
Littlehampton, BN17 6BP

Telephone: +44 (0) 1903 734 677

Fax: +44 (0) 1903 734 318

Website: www.smartcard.co.uk

Email: info@smartcard.co.uk

Editorial

Researcher – Patsy Everett

Technical Researcher –
Dr David Everett

Production Team - John Owen,
Lesley Dann, Suparna Sen

Contributors to this Issue –
Tom Tainton, Robert Zhang,
Suparna Sen, John Owen,
Peter Tomlinson

Photographic Images - Nejrion -
Dreamstime.com

Printers – Hastings Printing Company
Limited, UK

ISSN – 1755-1021

Disclaimer

Smart Card News Ltd shall not be liable for inaccuracies in its published text. We would like to make it clear that views expressed in the articles are those of the individual authors and in no way reflect our views on a particular issue.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means – including photocopying – without prior written permission from Smart Card News Ltd.

© Smart Card News Ltd

Our Comments

Dear Subscribers



Patsy Everett

Well the weather in Barcelona for the annual Mobile World Congress (MWC) may have been a little disappointing but the mobile phone weather barometer inside was anything but, and yes I do have an app on my phone that does this. Our lead story this month surrounds the happenings at Nokia and the announcement of their tie up with Microsoft. A problem for Nokia perhaps but an incredibly positive picture from the industry as a whole.

Smart phones and mobile apps were the order of the day along with tablet objects to compete with Apple's iPad. Apple was nowhere in sight but I guess they argue they don't need a stand and whoever has heard of Barcelona in sunny Cupertino California, site of the Apple headquarters. However they still won the best mobile device award for the Apple iPhone 4. I'll bet you're desperate to ask so I'll let you in, the best mobile app award overall on all platforms went to Angry Birds (and yes I've got that on my phone as well).

There were queues everywhere, my activity barometer is based on the length of the queues for the toilets and oh they were long. So although the organizers provide the facts and figures on their web site I can tell you it was a busy year.

The last few trips to Cartes in Paris have been disappointing, I think the atmosphere has been dull. People are not really interested in smart cards as such it's much more the application business and people struggle to fill in the bits. I almost hesitate to say it but I think people may have forgotten what the smart cards are for, perhaps I'll ask that question in Paris later this year.

But the MWC conference was really quite different, the stands were manned by people who were anything but bored, it's an exciting world and the smart phone opens up avenues for all parts of the industry.

There were lots of things going on but I know you would want me to keep you informed on NFC. Well I think we have passed some tipping point, NFC in the phone was pretty well a given. Everybody agrees that lots of smart phones will have NFC over the next few years but that mass applications have still got some way to go. The huge signs all over the place for the Samsung Galaxy S II just kept reminding you that NFC was now in the forefront. But here was the interesting point, even though perhaps 50 million or more NFC phones will appear on the market this year (yes I believe it, the chips are being made) nobody for one minute tried to suggest that we will all be paying with our phone at the end of the year.

In fact I actually obtained an unbelievable consensus from those most closely involved in the industry. Location and social network services, that's where it is all going to happen. The location bit is referring to the idea of having RFID tags dotted around all over the place so that you can tap your phone on them to get more information on a particular historical site, some advertised event or just plain goods for sale on some advertising hoarding.





The social networking angle is even more interesting, the location bit is old hat really and I'm sure it will happen but bumping into somebody or I guess more politely bumping our phones together to exchange contact information (or anything else I guess) now that sounds interesting. Do you remember the early days of mobile phones, there was the advert of the boy meets girl, she was in one train he in the other and their eyes met. Well you can guess what happens, they both get out their phones and point them at each other to line up their infra-red link. Of course the train moved at the wrong moment so the link was lost before the vital information was passed from phone to phone. Actually I'm not sure if NFC would solve this problem but I'm sure there are many more.

Anyway the consensus from the conference was this year will produce between 50 and 100 million NFC phones. It is also pointed out that the only standard agreed is for the Single Wire Protocol (SWP) which is the connection from the NFC chip to the SIM which then acts as the secure element. But it was also agreed that we are still years away from having any general agreements between network operators and the sharing of the SIM with application providers such as financial institutions.

So all this was really quite consistent, the move to NFC is now really under way but it will be several years yet before we see any mass applications. Samsung is hedging its bets as to whether you need a separate secure element in the phone (to the SIM card). The Nexus S has the NXP PN65K NFC chip which includes the SmartMx as a secure element while the latest Galaxy S II has the PN544 SWP chip without the secure element.

If I were a betting girl my money would be on the separate secure element not the SIM card, this will give more power to the phone manufacturers, but this will also take time because it is currently devoid of standards.

Patsy (from a very wet Barcelona)

Contents

Regular Features

Lead Story - Nokia - One Foot in the Grave?	1
Events Diary	3,4
World News In Brief	5,7,11,14,16,19

Industry Articles

Mobile Payment in Year 2011:	
SIMpass successful story in China is moving on	6
Prepaid Growth Rockets Under Global Depression	9
eWise Launch UK's first OBeP System	13
Innovation key at Nordic Card Markets Conference	16
Convergence Decade?	18
RFID Chips: Adding Speed and Convenience to Fraud.	20

Events Diary

March 2011

8-11	IC Card World 2011, Tokyo, Japan - www.shopbiz.jp/en/ic
9-11	Payment Trends China 2011, Shanghai - www.paymenttrends.com
15-16	Mobile Financial Services 2011, London, UK - www.mobile-financialservices.com
16-17	Cards & Payments Solutions 2011, Earls Court, London, UK
21-22	CEE Card Markets Conference 2011, Budapest, Hungary

Source: www.smartcard.co.uk/calendar/





- 21-23 Automatic Face and Gesture Recognition 2011, California, USA – www.fg2011.org/fg.php?page=home
- 21-25 Cards Africa 2011, Johannesburg, South Africa - www.terrapinn.com/2011/cardsza
- 23-24 Global Commercial Cards & Payments Summit 2011, New York, USA – www.commercialpaymentsinternational.com/global-summit-2011.htm
- 28-29 Cards and Payments Australasia 2011, Sydney, Australia - www.terrapinn.com/2011/cards
- 29-31 Cartes in Asia, AsiaWorld-Expo, Hong Kong - www.cartes-asia.com
- 29-31 RFID Show, Porte de Versailles, France - www.rfid-show.com

Source: www.smartcard.co.uk/calendar/

Nokia - One Foot in the Grave? Continued from page 1

The stir all started just a little before the conference when the new boss of Nokia Stephen Elop sent out an email to staff where he compared the position of the company to somebody standing on a burning platform in the North sea where the option is to get frazzled or jump into the icy water below. It is difficult to argue with such frankness and the logic is inescapable because Nokia has clearly lost the way with Symbian its traditional smart OS and MeeGo the new operating system which seemed unlikely to fare any better. We support Stephen Elop's analysis but reject the solution of adopting Microsoft's Mobile Phone Platform. Given that Stephen came from Microsoft to Nokia perhaps this was inevitable, I think we predicted as much in our previous article on the mobile wars (November 2010). Anyway this may provide the differentiation but as far as we can see the main gain would go to Microsoft, there are better ways as we will show.

Our analysis needs to start with the mobile phone itself, when is a phone smart or not so smart? The requirement is all about being able to run applications on the phone, in the early days that meant SIM Toolkit which allowed applications to be loaded into the SIM card and to gain access to the keyboard and screen data from the phone. It's still around but swamped by smart phone operating systems, originally Symbian from Nokia but then IOS from Apple , the Blackberry OS, Microsoft's mobile OS and of course Android from Google. This makes the mobile phone like a PC and SIM Toolkit like some old Austin 7 competing with the latest Ferrari.

Early morning readers will not have missed the significance in the passing of power from the network operators to the mobile phone manufacturers. Applications under SIM Toolkit were controlled by the operators, applications running on the mobile phone operating system are controlled by the phone manufacturer. What a trick the network operators have missed and one which in my view will be impossible to reverse. There was absolutely no reason why the SIM applications couldn't have been made very sophisticated, after all the network operators specify the mobile phone because they are the primary customer. They also had the advantage of controlling the security of the phone, but that has arguably gone as well except in terms of the underlying phone billing mechanism, more on SIMs and NFC to follow.

Anyway the first immediate observation here is that Nokia is struggling in the application world against Apple and the up and coming stores surrounding Android and possibly the Blackberry App World where RIM is now focussing considerable attention. I would go as far as to say they are a non starter, the Nokia Ovi app store has some 30,000 applications compared with the 350,000 from the Apple app store and some 150,000 from the Android market. The Blackberry App World is at about 18,000 apps but I think this is going to rapidly increase this year. I can't imagine any developers giving much time to Nokia while they are in this transition mode. And just to put it in perspective the Microsoft mobile apps market stands at about 8,000 applications.

The thing is that people have been saying that the market for non smart phones is huge and will carry on for years to come so even if Nokia lose out on smart phones they will still dominate non smart phones. This is blatantly wrong on 2 counts, first of all the Chinese are going to be the big player in mobile phones and who is going to compete with them at the bottom end? Certainly not Nokia, and then you have to challenge if





there is a long term future for non smart phones. I don't know if turkeys bury their head in the sand but that's the only sort of thinking that would allow you to pass on the future that is clearly based in the world of smart phones. I remember only 5 years ago people telling me that having a camera in a mobile phone is a fad soon to die out whereas today we might more appropriately ask how many phones don't have a camera?

What is it that made the iPhone take off in 2007 to dominate (until recently) the smart phone world? Nokia had been making smart phones since 1996 starting with the Communicator 9000, I still have mine somewhere in the cupboard. The truth is that although Nokia has a long history of smart phones they were always a niche attraction, dare I say it, they were for nerds. The phones often crashed and had to be reset at the most inconvenient moments, but what fun to have a programmable phone. The iPhone just caught the consumer imagination, it was sexy to look at and feel, fun to use and it just worked in an intuitive fashion. This is what the competition is up against.

Up until this point Nokia had a reputation for magnificently engineered products, they were reliable and worked extremely well as mobile phones. The jump into operating systems for 3rd party developers was to become a battle in which the final outcome has been Nokia's withdrawal from phone operating systems with the loss of many jobs in R&D, critics have said as many as 6,000 heads from a total R&D size of 13,000. Nokia never managed to match that intuitive and sexy feel of the iPhone, the software was often buggy and even today the user interface can be obscure.

So what is the way out for Nokia? In actual fact we would propose that Nokia should go back to its routes, build upon its strengths and then add something a little new. So the first thing to do is to get back the reputation for the best engineering in the world of mobile phones, a reliable quality product, the competitors can be beaten here and even Apple has had its fair share of problems and not just the antenna that was easy to short out depending on how you hold the phone.

Now this might sound like heresy but the phone operating System (OS) just needs to do the job. It needs to let you easily add applications that from the users point of view can be engaged in some seamless fashion. The user wants a big choice of apps with an OS that doesn't constantly need to be reset. I personally have a high regard for the skill sets hidden away in Microsoft but somehow they haven't got their story right when it comes to mobile phones and you can tell that by the dismal following of phone manufacturers, users and developers. The customer is not going to be religious about whether the OS comes from Google, Apple, RIM or Microsoft it is only a means to an end, the application is everything. Can Microsoft catch up or is it all too late?

Google purchased Android Inc the original developer back in 2005 but things really started with the formation of the Open Handset Alliance back in 2007 when Android was effectively put forward as an open source OS. Is it conceivable that the major handset manufacturers are going to adopt Microsoft, no of course not, so Nokia is going to be on its own. Realistically it's also going to take at least 2 years to get everything into a shape adequate for a viable consumer product. Will the developers follow or will they concentrate on Apple and Android? I think it's a pretty safe bet that Nokia is about to move into the lull of the equatorial doldrums. I want to argue that there is no advantage to Nokia in the choice of OS, whether it is Android or Microsoft they are not going to make any money out of the OS. But they must have the applications without which they won't make the sales. Nokia you are still big enough, why don't you do both!

So how can Nokia get back to the top position? In addition to returning to the house of engineering excellence the other angle that I think they have missed is security. Android is going to lead into a world of free for alls. We are going to have buggy apps and security problems previously unimagined. Apple is keeping fairly good reigns on its apps and this is a big selling point to the consumer who really doesn't want the phone OS to keep falling over.

There are two things that Nokia can do, one is to closely control the apps that get loaded onto their phones and the other thing is to provide a trusted security end point in the phone that can be used by these apps. Simple enough to say, somewhat more difficult to do but for the company that gets this right, I think they will be in pole position in 3 years time. Just as aside when somebody gets this right then the network operators will have completely lost the security battle because the application providers won't need the SIM.

By Dr David Everett , Smartcard & Identity News



Mobile Payment in Year 2011: SIMpass Successful Story in China is Moving On ***By Mr. Robert Zhang, Director of Telecom Product Line, Watchdata***



Robert Zhang

In the latest Harvard Business Review, Eric Schmidt, CEO of Google, wrote about the company's plans for the coming year, saying "as I think about Google's strategic initiatives in 2011, I realise they're all about mobile." It's notable that Schmidt didn't say "mostly," or "many," of its initiatives are about mobile - he said "all" of them are. There are three main fronts where Google's strategic vision will come into play in 2011, explained Schmidt, one of which is "mobile money." Yes, the CEO just confirmed Google's plans for a mobile payments service. And apparently, we'll see it this year.

([http://www.readwriteweb.com/archives/eric_schmidt_all_googles_strategic_initiatives_in_2011_are_mobile.php?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed:+readwriteweb+\(ReadWriteWeb\)](http://www.readwriteweb.com/archives/eric_schmidt_all_googles_strategic_initiatives_in_2011_are_mobile.php?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed:+readwriteweb+(ReadWriteWeb)))

About two months before, with the Samsung Nexus S, the first Android smart phone to support NFC, issued to the market in December 2010, Google showed its ambition on Mobile Payment. Other device manufactures, such as Apple, Nokia, RIM, and Mobile Network Operators (MNO), including French Telecom and SKT, highlighted their plan for NFC. It is very clear that Mobile Payment will be a hot word in year 2011.

Near Field Communication (NFC) plays an important role in bridging the gap of telecommunications and payment. With the use of NFC technology, the mobile phone has the potential of becoming a powerful payment device, helping people make fast and secure payments.

Technically, NFC is defined as a short-range wireless connectivity technology that provides intuitive, simple, and safe communication between electronic devices. Communication occurs when two NFC-compatible devices are brought within four centimetres of one another. NFC operates at 13.56 MHz and transfers data at up to 424 Kbits/second. Because the transmission range is so short, NFC-enabled transactions are inherently secure.

NFC is a general technical concept, there are 3 main different branches, including Standard NFC, e-NFC (or we could call it SWP), and SC-NFC (Single Card NFC, or we could call it Dual Interface Card NFC Solution). These 3 different branches are from one basic technology, and similar to each other. But the different branches represent different parties in the mobile payment industry environment.

The mobile payment industry environment including handset manufacture, MNO, finance institute, mass transit institute, consumers and so on...

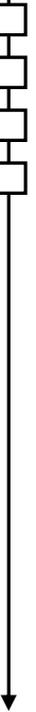
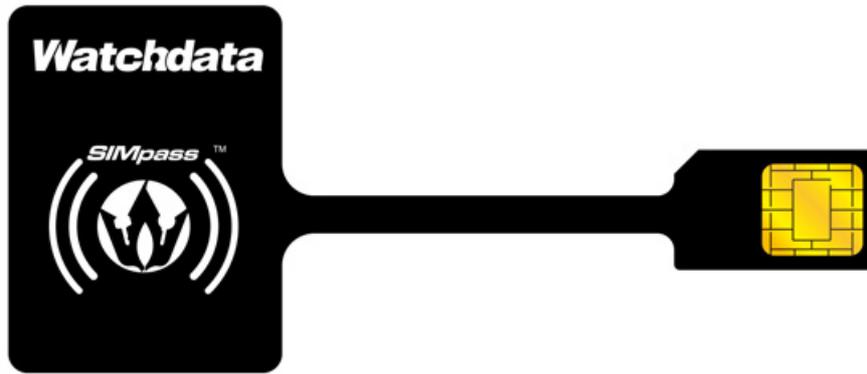
Standard NFC integrated the CLF, Antenna (for proximate payment) SE (secure element) on the Handset, enabling the handset for the payment function. In this case, SE is controlled by the handset manufacture. It is clear that the application provider can do the personalisation and application download without MNO. The standard NFC solution represents the application provider's, especially the handset manufacture's interest, but not MNO's.

SWP, or e-NFC, is an alternative solution for Standard NFC. In this branch, SE is on SIM, CLF and antenna is on handset. SIM is controlled by MNO, and all the application will be downloaded to the SIM. As a result, this solution represents MNO's interests. Unfortunately, SWP solution is not attractive to handset vendors. This is the reason why only a few SWP enabled handset are in the market. Now it is clear that Google and other handset giant will select the Standard NFC way, and this would be a tough situation for MNOs.

SC-NFC, or Dual Interface Card NFC solution, integrates SE, CLF and Antenna on the SIM card. Obviously, this solution stands for MNOs' interests. With SC-NFC, MNOs would fully control the mobile payment application personalisation and downloading.

Watchdata, one of the leading innovative data security and smart card technology solutions providers in the world, continues its successful push for 'SIMpass' mobile proximity payment solution. SIMpass is based on Dual Interface NFC technology, recognised as the SC-NFC. Compared to others NFC implementations, SIMpass has low introduction cost as most mobile subscribers only have to change their SIM card to the SIMpass card. More than 80 percent of mobile handsets currently out in the market are compatible with SIMpass.





SIMpass technology offers unparalleled features set to enable highly secure, cost effective and quick-to-market mobile payment solution. SIMpass integrates the security, payment, telecom, and application modules in an all-in-one SIM card. This allows mobile operators, financial institutions and transit operators to stay at the centre of the mobile contactless service while giving their customers a highly value-added service that suit their lifestyles.

Through its contact interface, SIMpass acts as standard SIM card to execute subscriber identity authentication to the mobile phone. Via its contactless interface, it is ready to add contactless capabilities that include transit and retail payment, access control, ID and many other contactless applications.

October 2010, China Telecom, the largest fixed telecom operator in the nation, together with China UnionPay (CUP) and Bank of China, launched a new mobile payment service in Ningbo. The so-called "E Surfing Great Wall Card", on basis of 13.56MHz Watchdata SIMpass technology, integrates the full functionality of a mobile phone SIM card and onsite payment function of a standard bankcard. This is the first joint venture project after the unification of the mobile phone payment standards in China.

Users can tap their card at more than 7,000 merchants and nearly 20,000 POS terminals in Ningbo and use the card on more than 1,300 buses of 125 road lines. China UnionPay has nearly 300,000 POS nationwide that can support E Surfing Great Wall Card. CUP looks to provide compatible terminals overseas, so people can use mobile payment service even in different countries in the near future.

SIMpass has more than 2 million users in more than 20 cities and provinces of China, including Beijing, Hunan and Jiangsu. Recent survey shows that 90 percent of users are active and 32 percent of the subscribers switched to China Telecom because of SIMpass-enabled mobile payment services. It is believed that there would be more than 10 million SIMpass cards issued this year.

It is believed that different market situation needs different mobile payment solutions, different mobile payment solutions will represent different stakeholders' interests. In year 2011, mobile payment market would be a big battlefield for all the parties.

World News In Brief

Inteligensa USA Launches i-Pin

Inteligensa USA introduces 'i-Pin', a smart card that calculates dynamic PIN keys to fight identity theft in online banking and payment transactions. i-Pin is a high security token in a credit card format.

Online identity theft is a major concern for bank customers that use the internet for banking transactions and credit and debit card on-line payments. During 2010, 75% of U.S. banks suffered from attacks related to identity theft.

Current systems only require fixed account and customer information plus a customer defined PIN

number. Sophisticated methods employed by hackers detect this information which may be used to conduct fraudulent transactions.

Metcard Offers To Replace Myki

Vix Technology, which successfully manages the technology for Metcard and numerous international transport ticketing systems, has offered the Victorian government a replacement for Myki.

The offer was made last week to Transport Minister Terry Mulder and senior bureaucrats in the departments of Transport, Treasury and Premier and Cabinet. Vix Technology is offering to replace



the Myki system and extend the extremely successful, popular and reliable Metcard system through Victoria's bus, tram and train services while its smartcard system is introduced.

The roll out would begin within 6 months and will be completed within 12-18 months.

UK Council Sent Benefit Details to Wrong Recipients

According to the Information Commissioner's Office (ICO), the Isle of Anglesey County Council breached the Data Protection Act after sending benefit details to the wrong recipients.

The ICO was first made aware of the breach in November 2010 when the council reported that a contractor had mistakenly sent letters to the wrong individuals. The letters included financial information about benefit entitlement, income and savings. The ICO's investigation found that the council had no written contract in place with the service provider to explain how personal data should have been handled in line with the council's existing policies and procedures.

The authority has contacted the individuals who were involved in the mix up and will put in place contracts with all of the organisations who handle personal information on their behalf.

Now Orange Cash for Britons

Orange and MasterCard have launched the new contactless payment card - "Orange Cash" to enable users control their spending, and act as a secure alternative to carrying cash. As the UK's first major contactless prepaid MasterCard, Orange Cash can be used in over 30 million locations that accept MasterCard within the UK and abroad.

The announcement follows the launch of the Orange contactless credit card in 2010 and this year's roll out of a commercial contactless mobile payments service. The Orange Cash prepaid card can be used online and each card costs £5, which can be loaded up to £5,000. The card is particularly aimed at students who want to manage their spending and for holidaymakers who want a hassle free, safe alternative to cash.

Orange Cash prepaid cards can be loaded with money at over 22,000 shops and petrol stations across the UK with the PayPoint logo, at 12,000 Post Offices, over 450 Orange retail stores and online on the Orange Cash website.

The Orange Cash card is also the country's first prepaid card to be offered with rewards that can be used on the customer's pay-as-you-go phone. One Orange prepaid reward point is earned for every £1 spent. Customers can redeem their rewards online for free texts, airtime, credit on Orange pay-as-you-go phones or vouchers for use in Orange shops. Orange pay-as-you-go customers can easily top up their Orange pay-as-you-go phone from the Orange Cash account, while funds can also be transferred between Orange Cash cards.

Google Delivers Gingerbread Update

Google has released an update of its latest Android operating system – Gingerbread. The system is now offering some added NFC functionality, thereby enabling users to not only tap their phones to read NFC tags, but also to write to the tags as well.

The new feature means people could create their own tags, encoding them with information they write on their phones. For instance, they could put contact information, URLs that link to mobile websites or other small amounts of other text on the tags.

The update is available for download to owners of Google's first Android NFC phone, the Nexus S.

Gingerbread, however, still does not support NFC's card-emulation mode, which would enable users to tap their phones just like contactless cards. This would allow for payment, ticketing, access control and other secure applications, which could be stored on embedded chips or SIMs in the phones.

World's First Commercial Rollout of Bio-Sourced SIM

Gemalto announced that Mobily, the leading mobile operator in Saudi Arabia, has started deploying its bio-sourced SIM, made with renewable material and easily recyclable. Mobily is one of the fastest growing wireless service providers in the world with more than 18 million subscribers. This represents the world's first commercial deployment of its kind.

The Gemalto product is fully compliant with telecommunications standards and its card body is certified 100% compostable. The new card enables Mobily to convey their visual identity by displaying their branding with colours and graphics of the highest quality level, while keeping their logistics and warehouse processes unchanged. This eco-friendly initiative demonstrates that reducing environmental impact can be a springboard for both innovation and business development in the telecom industry.



Prepaid Growth Rockets Under Global Depression

By Suparna Sen, Smartcard & Identity News



Suparna Sen

Prepaid cards have had an astonishing rate of growth over the last few years. SCL, a British software firm, ended 2010 on a very high note, delivering its 30 millionth prepaid card, and announcing expansion plans of prepaid cards worldwide.

Broadly, there are two types of prepaid cards - open loop and closed loop prepaid cards.

Open loop prepaid cards such as MasterCard or Visa are used for payments wherever the card brand is accepted across worldwide locations. Open loop cards are used for easy access of cash from branded ATMs and bank branch or kiosks.

A closed loop prepaid card is a merchant specific card that can only be used when shopping at that particular merchant's location. For example, a JC Penny prepaid card or a Starbucks Card can only be used at their respective outlets and Company websites only.

Although prepaid cards only account for a small share of non-cash payment transactions in the United States (Figure 1), prepaid cards are the fastest growing. (Figure 2)

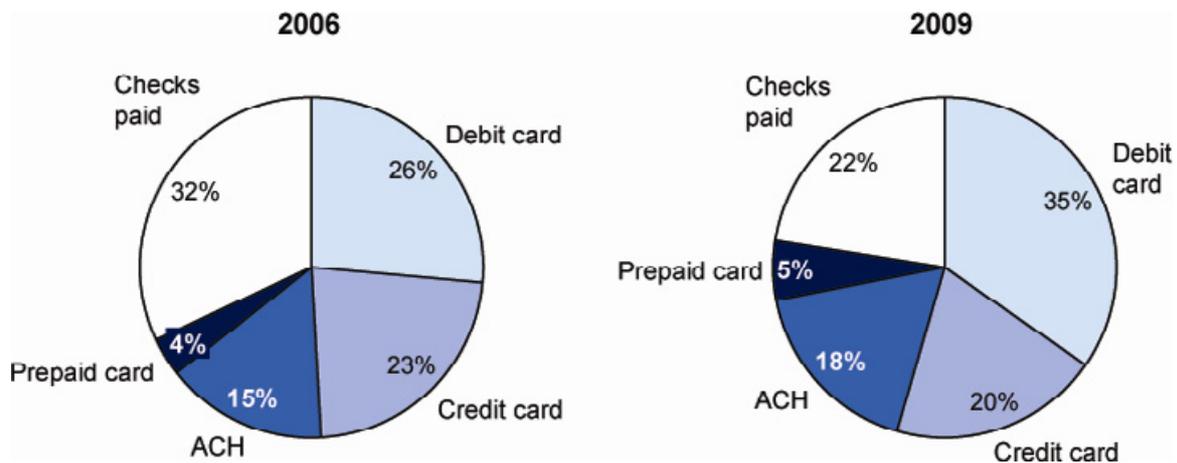


Figure 1: Distribution of the Number of non-cash transactions

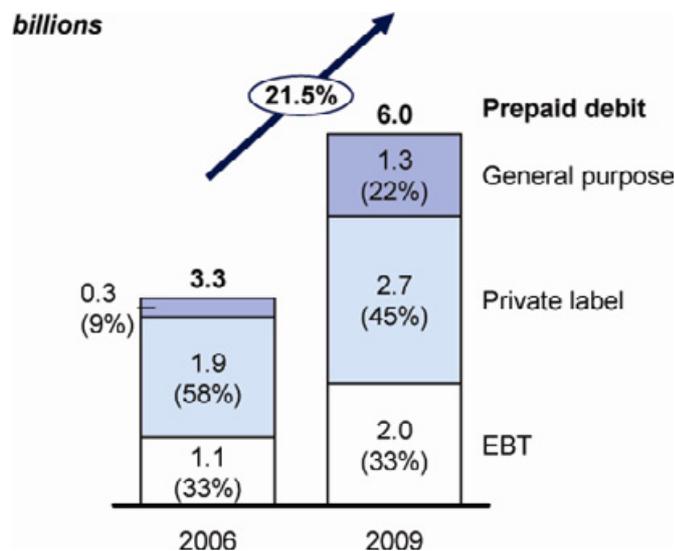


Figure 2: Number of Prepaid transactions by type



Private label cards (closed loop such as gift cards) had the highest value of transactions at 2.7 billion 2009, while the usage Electronic Benefits Transfer or EBT cards (US state government supplied food and cash cards) remained static. General purpose (Open-Loop) prepaid cards are network branded by either credit card or PIN networks. Open loop prepaid cards like payroll or prepaid banking cards.

Market Researchers, Aite Group has suggested that “prepaid card industry stakeholders are bearish on private label prepaid cards, and cautiously optimistic about the future of branded prepaid cards. Of respondents, 82% feel the recession will have a negative impact on private label prepaid cards (mostly composed of merchant gift cards), while the majority of respondents (71%) see a positive impact of the recession on branded prepaid cards overall, largely driven by branded government cards, consumer incentive cards, payroll cards, and health care cards. In order to improve the market for prepaid cards as a whole, most agree that greater efforts must be made to educate the public on the benefits of prepaid cards. Technologies could also be better leveraged to improve the reload process.”

Within Europe According to the Prepaid Market Sizing Report of Boston Consulting Group (BCG), commissioned by MasterCard Worldwide, the aggregate value of funds in open loop prepaid cards (Visa, MasterCard, Discover) in Europe is expected to reach \$156billion (€127billion) by 2017, from \$22billion (€18billion) in 2010.

The BCG report also believes UK will dominate 25% of the European prepaid market by 2017, followed closely by Italy with 20% share of the global prepaid market during the same period.

Matthew Lanford, Head of Prepaid Division, MasterCard Europe, said, “Prepaid is coming of age in Europe and is becoming an established part of everyday life. The economic downturn has made corporates, governments and consumers throughout Europe focus harder on money management”.



Figure 3 show us the main market drivers for prepaid cards

It is predicted that the most significant drivers in developed economies will be online prepaid solutions and giftcards. Sale of giftcards in USA has increased from \$1 billion in 1995 to \$70 billion in 2006, says The National Retail Federation.

The market drivers for developing economies looks likely to ride on the back of mobile phones, as often more people own mobile phones than bank accounts in these countries.

The number of mobile phones in rural India had reached 236 million in 2010. This number is markedly higher than the 187 million adults living in rural India with bank accounts. Maximum people using mobile phones acts as an attractive back-drop for starting mobile banking services in rural India, as ‘Mobile wallets’ would bring





low-cost banking and remittance services to millions, for whom banking services are not readily available or easily accessible

There is a global spurt of prepaid card's use over credit/debit cards mainly because you get an idea how much finance you have on your card. Prepaid cards involve no "hidden danger" which is there in credit cards. Prepaid cards can be used to make transactions only up to the balance loaded onto your prepaid account. No interest is charged on the prepaid card amount, and most prepaid card providers let you manage your account online or via an interactive Voice Response telephone service, thereby offering easy reach of your balance.

Chris Reddish, Head of Prepaid, MasterCard Europe added, "Prepaid cards are simple to purchase and easy to use. They enfranchise consumers by offering them the financial freedom of using a payment card without having to open a bank account or undergo credit referencing".

On February 2 2011, Axis Bank launched India's first currency prepaid card - 'India Travel Card' that can be funded with any major international currency and after conversion, will allow customers to use the deposited amount in Indian currency to either shop or withdraw at ATMs.

Canada's SelectCore (a leading payment and transaction processor for prepaid telecommunication and financial services) has decided a nation-wide roll-out of MasterCard Iridium prepaid cards once it completes its refinancing (as per the Company's press release dated February 11, 2011).

According to financial analysts, the fastest growing payments forms are prepaid cards, debit cards and ACH (Automated Clearing House) payments. With increased use of mobile phones and leading smartphones on the market, 2011 is bound to see a great rise in payment processing services via mobile phones, and social networking sites. Since September 2010, Facebook has started \$15, \$25 and \$50 pre-paid cards for its virtual currency, Credits, within 1,743 Target retail locations across USA and on Target.com website.

Ray Stanton, Managing Director, SCL¹ added: "With the total prepaid card market expected to achieve 40% annual growth, the focus for 2011 will not be whether to have a retail prepaid card programme but how to manage it more effectively. In 2011, SCL predicts wider availability of PCI DSS certified prepaid platforms as prepaid providers strive to ensure their systems are able to process card payments in line with tightening credit and debit card data protection regulations".

With O2, releasing its latest Visa prepaid card from 18 February in its company outlets, Orange UK rolling out contactless pre-paid MasterCard, and US-based BB&T Corporation launching BB&T MoneyAccount prepaid transaction account for its customers, 2011 will see more of such companies coming out with different versions of prepaid cards for providing maximum ease of fund access to unbanked and under-banked people.

¹ SCL is a leading British software company, providing prepaid cards and foreign exchange point of sale systems worldwide.

World News In Brief

Level Four Releases Next Generation Automated ATM Testing Software

Level Four has released its next generation industry-leading automated ATM software testing solutions. The updates to Level Four's BRIDGE:test, Regression Test Manager (RTM) and ATM Developer products enable banks to create and run a greater number of tests more rapidly, therefore maintaining higher levels of ATM uptime for consumers while reducing the time and cost invested for banks.

The new versions of Level Four's products, v2.11,

include several changes to the hardware device modelling layer, a refreshed user interface and some significant changes to Regression Test Manager. To support the investment, Level Four is also expanding its product team with a number of recent hires.

NXP and Giesecke & Devrient Leads Mass Deployment of NFC in Mobile Handsets

NXP Semiconductors N.V. and security specialist Giesecke & Devrient (G&D) announced the full validation of a joint software solution offering



secure interfaces between the handset, NFC functionality and secure elements such as the SIM card. The solution enables NFC to be integrated securely into mobile handsets based on the Android platform and other operating systems. In addition, the validated software will meet the needs of mobile network operators who are specifically demanding secure elements within the handset. The first Android handset supporting this enhanced functionality is expected to be launched during the second quarter of 2011.

Gemalto Integrates Smart Card Security with Microsoft U-Prove

Gemalto has integrated its smart card technology with Microsoft U-Prove for enhanced security. U-Prove is a privacy-protecting cryptographic technology that helps to protect identity-related information online by allowing people to disclose minimal amounts of identifying information when they can access applications and services. It provides multi-party security in that U-Prove issuers, users and relying parties are all protected from outside attacks as well as those originating from each other.

With the integration of Gemalto's technology, users will need their smart card in order to use their U-Prove tokens containing their information and attributes. Gemalto's tamper-resistant smart cards prevent attacks on users' U-Prove tokens, and offer additional benefits such as non-transferability and unauthorised use of expired tokens.

Nokia Bid Goodbye to Symbian Smartphones

Putting an end to rumours as to whether Nokia will turn to Android or Window, Nokia has finally joined forces with Microsoft. The deal will see Nokia use the Windows phone operating system for its smartphones instead of the existing Symbian open source operating system in Nokia phones.

By forming an alliance, Nokia aims to regain its position lost to Apple's iPhone and Google's Android-based devices. Speaking at the launch of the partnership, Nokia's CEO Stephen Elop said, "there would be substantial job losses as a result of the tie-up". Mr. Elop further added "the game has changed from a battle of devices, to a war of ecosystems".

Symbian, which runs on most of Nokia's current devices, will become a "franchise platform", although the company expects to sell approximately 150 million more Symbian based smartphones in future.

Atos Origin and CASSIS to Offer Mobile NFC Services in Europe

Atos Worldline, which brings together Atos Origin's expertise in hi-tech transactional services, announced its partnership with CASSIS International, one of the key suppliers of NFC and Trusted Services Management (TSM) solutions, to implement complete solutions enabling service providers such as banks, public transport operators and telecommunication operators, distributors, to deploy innovative and secure contactless applications (payments, transport season tickets, loyalty cards and authentication).

This alliance of complementary expertise will aid the deployment of complex NFC services in Europe, offering flexible and scalable solutions from start to finish.

This agreement is concluded within the context of ongoing projects which is Atos Worldline is delivering to develop applications for secure contactless electronic transactions.

VeriFone Expands PAYware Mobile to Global Markets

VeriFone Systems, Inc. announced a next-generation version of PAYware Mobile Service for global markets. This latest innovation features VeriFone's sleek mobile payment solution and gateway service and brings international payment standards including NFC and EMV smartcards with PCI-compliant PIN keypad for Chip & PIN transactions, to popular smart phones.

With this solution, small businesses around the world will be able to accept smartcard, mag-stripe card and contactless-based payments anywhere at any time. The second generation of PAYware Mobile will be available in the UK and Canadian markets during the first quarter of 2011. In addition, PAYware Mobile will be introduced into additional countries across Europe, Latin America and Asia throughout 2011.

Motorola Mobility Acquires 3LM

Motorola Mobility Holdings, Inc. announced its acquisition of Three Laws Mobility, Inc. (3LM), a developer of mobile enterprise security software and solutions and mobile device management products for the Android operating system. The agreement was completed in late 2010, although the terms of the transaction were not disclosed.

3LM's technology is designed to enable the adoption of Android devices by businesses and governmental entities.



eWise Launch UK's first OBeP System

By John Owen - Smartcard & Identity News



John Owen

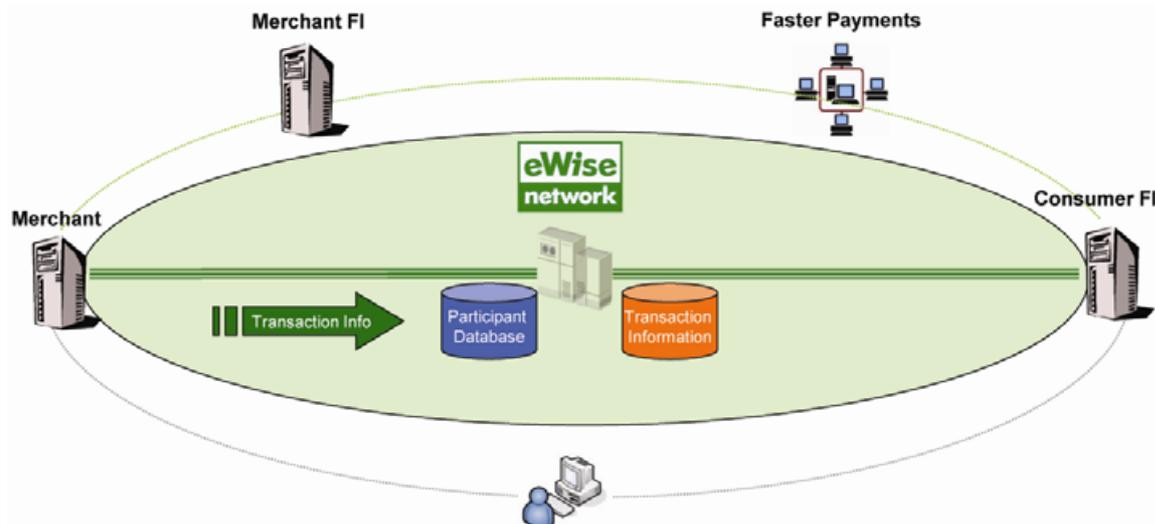
eWise with the help of VocaLink, intend to capitalise on the Faster Payments inter-bank transfer service(FPS) and bring Online Banking ePayments (OBEP) to the UK.

OBEP is an alternative way to pay for goods online and differs to a Debit/Credit payment in that you do not require a card or input account information. Once the consumer is ready to check-out and pay for his goods, he is routed to his Banks website. The consumer logs into his online bank where he may check his funds and instruct his bank to transfer payment to the merchant.

OBEP has been enjoyed by Europeans for quite a few years now. The Dutch have an OBEP solution name 'iDEAL' which is used by more than 50% of residents and since introduction in 2005 has been used for more than 140 million transactions. Germany has 'Giropay' with over 17 million registered users and is the third most popular way to pay online. eWise hopes to replicate these success stories in the UK with its solution named eWise Payo.

At the launch event (26th January 2011), I spoke to eWise Payo managing director John France. Prior to joining eWise, John was head of processing sales for Visa Europe and has held senior roles with ACI Worldwide and Nomad. John expressed how eWise Payo will build on market share rather than be in direct competition with Credit/Debit cards. We agreed that eWise Payo would be typically used for transactions of £10-£100.

The eWise Payo solution works as follows: Firstly Merchants are vetted before joining the eWise network. eWise ensures that all participants follow the eWise schemes operational protocol.



Above: Entities involved in a eWise Payo Transaction

Consumers Steps:

- 1) When the consumer is ready to make a payment, they choose eWise Payo as the method.
- 2) They select their bank from the list and are securely redirected to their banks login screen.
- 3) The consumer signs in using their existing online banking credentials choose the account from which they wish to pay and approve the payment.
- 4) The consumer's bank authorises the transaction in real time, guaranteeing payment to the merchant or biller.
- 5) The consumer's bank initiates a Faster Payment to the merchants or biller's financial institution, typically receiving the funds in less than 15 seconds.
- 6) The consumer is redirected back to the merchant where a transaction receipt is shown.





Throughout the payment process, the merchant is exchanging information with the eWise Network.

1. Merchant sends a "Transaction Information Message" (TIM) to the eWise Payo Network via the secure channel and receives back an encrypted session token with the consumer's financial institutions URL. (The session token is presented with all subsequent communication between all entities)
2. Merchant redirects the consumer to the consumer's financial institution (with session token).
3. The consumer's financial institution passes the session token to eWise Payo Network. The eWise Payo Network responses back with the TIM as well as merchant account details and merchant completion URL.
4. Once payment has completed over the Inter-bank Faster Payment Network a Payment Notification Message (PNM) is sent to the eWise Network.
5. When the consumer is directed to the merchant completion URL with the session token and the merchant retrieves the associated PNM and TIM information from the eWise network.

John commented that security still remains the key concern for people when purchasing goods and services online. It is believed that consumers will favour eWise Payo OBeP since no payment details are shared with a third party other than the consumer's trusted bank.

For financial institutions, eWise Payo will create new revenue and be low-cost, utilising existing online banking and faster payment infrastructures. And finally for merchants, it offers the promise of lower transaction costs, no requirement for PCI DSS compliancy and same-day receipt of funds via Faster Payments.

To help OBeP on a global scale, an industry body named the International Council of Payment Network Operators was found in 2008. The ICPNO has developed a framework, SEPA compliant messaging standard and operating rules to join OBeP networks around the globe. Currently, the ICPNO membership consists of iDEAL, GiroPay, Secure Vault Payments, Interac and eWise – 'eWise Payo'.

John could not mention any financial institutions or merchants who have committed to the scheme nor give me a typical transaction fee. I was assured that feedback from Financial Institutions and merchants have been very positive. eWise Payo will hopefully be seen as a payment method on the internet in around 9-18 months time.

The following week after the launch, eWise Payo Mobile made its debut at Finovate Europe 2011. eWise Payo Mobile is an application that allows consumers to conduct mobile ecommerce transactions, to initiate secure and private payments for goods, services, or bills online or face-to-face (using QR codes (matrix barcodes)) without having to provide personal financial information to any third parties.

World News In Brief

Oberthur Technologies Helps SECU Bring First EMV Card Chip Technology in USA

The US State Employees' Credit Union (SECU) has introduced EMV (chip) technology to its debit card portfolio, making it one of the first financial institutions in the country to add the microchips for increased transaction security over traditional magnetic stripe cards.

Oberthur Technologies will provide the non-profit cooperative with the technology needed for its EMV migration. While there is widespread adoption of the new technology worldwide, virtually none of the more than one billion chip cards in circulation are in the United States. SECU's 1.6 million debit

cardholders are believed to lead the US migration process. SECU will begin its migration in March, with a completion target date for late 2011.

Infineon Receives Award for Integrity Guard

At the Innovation Award of German Industry 2010 held at the Congress Centre in Frankfurt, on Saturday, February 19, 2011, Infineon Technologies received the Innovation Award for the best technological innovation for "Integrity Guard".

Infineon developed the security technology "Integrity Guard" to deliver an especially high level of long-lasting protection for sensitive data in applications such as credit cards and electronic



government identification documents like passports or ID cards. "Integrity Guard" sensitive information remains encrypted during transmission and processing. Hence, even if data might be intercepted, the encrypted signals are of no use to eavesdropping hackers.

In addition to full on-chip encryption along the entire data path (CPUs, EEPROM, Flash, ROM and RAM, caches and buses), Infineon's security chips with "Integrity Guard" have two central processing units (CPUs) and a sophisticated error detection system. The two CPUs cross-check each other continuously and detect whether arithmetic operations are executed correctly or an attack has been launched. If the security controller detects an error or an attempted attack, protective action is taken. The respective operation is aborted, for example.

Cost of UK Cyber Crime Hits £27 Billion

The overall cost to the UK economy from cyber crime is £27 billion per year, according to the first joint Government and industry report into the extent and cost of cyber crime across the UK, launched by the Office of Cyber Security & Information Assurance in the Cabinet Office and information intelligence experts Detica.

With society now almost entirely dependent on cyber space, developing effective strategies to tackle cyber crime requires a better understanding of its impact. Its breadth and scale have been notoriously difficult to understand and past attempts to set cyber crime policy or develop strategies have been hampered by a real lack of insight into the problem.

"The Cost of Cyber Crime" report reveals that whilst government and the citizen are affected by rising levels of cyber crime at an estimated £2.2 billion and £3.1 billion cost respectively, business bears the lion's share of the cost. The report indicates that, at a total estimated cost of £21 billion, over three-quarters of the economic impact of cyber crime in the UK is felt by business. In all probability, and in line with worst-case scenarios, the real impact of cyber crime is likely to be much greater.

CardSmith Announces New Self-Service Card Station

CardSmith has released their new "cash-to-card" solution that enables existing cardholders to check a card account balance and re-value the account using cash.

Cardholders can simply swipe their card to get their current balance, and then load any combination of \$1, \$5, \$10 or \$20 bills to revalue their card. The Station securely communicates with CardSmith's SaaS processing centre via the internet using 128 bit SSL encryption. Internal meters track all cash and card dispensing activity making it easy for administrators to perform reconciliations and audits. Online reporting from CardSmith's On-Demand Web Reporting Server provides real-time insight into station usage and performance.

An optional card dispensing module is also available enabling campus guests to purchase and use visitor cards.

SAIC Awarded \$2.5 Billion Task Order to Support U.S. Department of State Biometric Authentication Systems

Science Applications International Corporation (SAIC) has been awarded the Vanguard 2, Task Order 2.2.1 by the U.S. Department of State to engineer, design, secure, operate and maintain its critical enterprise-wide IT network infrastructure in support of the Bureau of Information Resource Management (IRM).

SAIC will mainly provide support on program management, operations of servers, network devices, anti-virus engineering, biometric authentication, encryption, monitoring tools, telephony, mobile computing platform, virtual environment and enclave security design.

The IRM is responsible for information technology by applying modern IT tools, approaches, systems, and information products and services to carry out its foreign policy mission.

SAIC's single award task order, awarded under the General Services Administration's Alliant government-wide acquisition contract, has a one-year base period of performance, nine one-year options and if all options are exercised, a total value of \$2.5 billion.

SMARTRAC Takes 50 Percent Stake in Omnia Technologies

SMARTRAC N.V. announced that it has reached an agreement with Omnia Technologies to take an interest of 50 percent in the Indian manufacturer of RFID tags, LF, HF and UHF transponders. The acquisition of 50 percent of Omnia Technologies is part of SMARTRAC's growth strategy and further strengthens the company's business activities in the Indian market.





Innovation key at Nordic Card Markets Conference *By Tom Tainton, Smartcard & Identity News*



Tom Tainton

The Nordic Card Markets Conference marked its tenth annual event with a two-day exhibition in a bitterly cold Stockholm last month.

The conference provided a detailed overview of key card trends and opportunities in the Nordic region. It also imparted forecasts for the size of the credit, prepaid and debit card markets in Norway, Sweden, Denmark and Finland. Drawing leading experts and high level officials from the across the Scandinavian payments market, the event explored what innovations will shape the dynamic markets in 2011.

A spokeswoman from SMi, the organisers of the event, said: "The Nordic payments market remains one of the most advanced and fast-paced payments markets in the world. Opportunities for development and growth are unsurpassed and it remains a region set to lead the way in the global payments sector. Developments in regulation, standardisation and security as well as contactless, mobile payment and prepaid sustain its position as a leader in the world payments market".

Besides estimating the impact of the continuing economic instability on the size of the card markets in the Nordic region, the conference explored card trends and new technologies. Key concepts included card innovation, optimisation and risk management. As well as this, card products that stimulate cross-selling of savings products, new constellations in telecom and banking and the challenges of open loop prepaid cards were also discussed.

One particularly interesting presentation was provided by VocaLink's Sales Director of Card Services, Richard Dear. Dear discussed the impact of the reduction of cash usage and enthused about the benefits of pooling resources. He also touched upon how user experience innovation was driving the contactless and mobile payments market.

A topic that cropped up consistently was economic issues in the banking sector and ways to generate new revenue streams. Developing a relationship between web-based companies such as Google, Apple and Paypal and the payments industry was an interesting concept as experts debated how banks should be interacting with users in the Nordic region. Behaviour scoring and third party prepaid distribution were other ideas proposed as a means to optimise card profitability.

It was no surprise that the case for contactless and mobile payments was also a keen talking point. When it was likely to significantly impact the Nordic market, and how it would happen made for interesting consideration.

World News In Brief

Vodafone and Intel in M2M Partnership

Vodafone and Intel are teaming up to develop and market machine-to-machine (M2M) solutions that will combine Intel's computing processor platforms with Vodafone's network and connectivity services. The system development kits based on Intel's Atom processor that will help to quickly develop M2M systems, to embed them in objects, and connect them to communications networks, the firms said. Applications are expected to range from smart meters, connected white goods and connected vehicles to entire "smart" buildings, the companies said in a joint statement.

The move puts Vodafone and Intel into direct competition with Nokia and UK-based chip designer ARM. The European Commission recently decided to fund the conversion of Nokia's Symbian mobile operating system into one suitable for embedded systems. ARM designs currently outsell Intel's, and are already optimised for connection to mobile networks.

UK ID Cards Cost £2 Million to Decommission

More than £2.25 million will be paid to compensate private firms after the UK Government abandoned the ID card scheme, in one of the first acts of the





Coalition. Up to £400,000 will also have to be spent on decommissioning the systems and destroying all personal data of card users. However surprisingly, thousands of £30 ID card holders will not receive any compensation.

The Immigration minister, Damian Green, revealed the figures in a letter to David Blunkett, the former home secretary, after a question on the issue. Mr. Blunkett said: "We are looking here at £2.25 million which has been thrown away for no purpose whatsoever. If identity cards and the work that had been done had been maintained, people would have been able to choose to continue using the card as a passport for domestic and European travel".

Nexus Launches a New Travel Smartcard for Tyne and Wear

Popping onto Metro or bus is about to get much easier with the launch of the biggest smartcard initiative outside London. Pop is the name of the new travel smartcard from Nexus set to be rolled out across the Tyne & Wear region this year. Nexus is investing £15 million from Government funds in smart ticketing, all part of the Metro: all change modernisation programme. This will include the replacement of 225 Metro ticket machines and the introduction of gates at key stations and 'smart' validators across the system.

The investment forms one part of the North East Smart Ticketing Initiative (NESTI), a project led by local councils across North East England to spread smart ticketing across all local public transport from the Tees Valley through to the Scottish border. Nexus passengers will start to get their regular season tickets and under-16 identification cards replaced with Pop cards now. Over the next year, a phased rollout will allow more and more people to travel with a Pop card, whose functionality will develop into a full 'pay as you ride' option with stored cash balance on cards in 2012.

MasterCard, Symantec and NagraID Security to Provide Further Payment Card Security Features

NagraID Security, MasterCard Worldwide and Symantec Corp. have teamed up to introduce the MasterCard "Display Card," bringing strong authentication functionality on a payment card to the United States.

Recently piloted and launched in Europe and Asia, the "Display Card" complements existing card security features through the use of Symantec's

VeriSign Identity Protection (VIP) Authentication Service and NagraID Security card technology. By building this authentication technology into debit and credit cards, cardholders, issuers and merchants are further protected from online fraud and identity theft.

The MasterCard "Display Card" looks and functions like the same magnetic stripe card consumers have relied on for the past 50 years, but it features a built-in display that enables cardholders to generate dynamic one-time "passwords," providing strong authentication. The one-time password can be activated by card issuers as a dynamic card verification code (CVC2) or as an on-card activation of MasterCard SecureCode, an online security service to guard against unauthorised use of a consumer's MasterCard card while shopping online.

Oberthur SIM Cards Will Now Have MIFARE

Through an agreement between NXP Semiconductors N.V. and Oberthur Technologies, NXP's MIFARE technology will be integrated into Oberthur SIM cards globally. This will further drive the adoption of NFC-enabled phones in infrastructures such as public transit, event ticketing, customer loyalty programs and access control worldwide.

Under this agreement, Oberthur Technologies will expand its existing UICC product portfolio adding MIFARE DESFire and MIFARE Plus technology. This will lead to increased availability of UICC cards incorporating MIFARE technology, allowing mobile operators and service providers to broaden their offerings in mobile contactless services.

Morpho Released Unique MorphoIDent

Morpho (Safran group) has announced the launch of MorphoIDent, the latest handheld mobile device in its line of criminal justice solutions. Designed for public safety agents and officers in the field, it enables real-time, on-the-spot identification based on fingerprint recognition technology. MorphoIDent has got FBI certified PIV sensor, along with full EC and FCC certification.

MorphoIDent is a robust, pocket-sized device that captures fingerprints with an FBI certified optical PIV sensor, including real-time automated quality check and matched against local, national or international databases. Results are displayed on the device's large colour LCD screen, giving officers fast access to critical crime solving information.





Convergence Decade?

By Peter Tomlinson - Smartcard & Identity News



Peter Tomlinson

Electronic ticketing for surface public transport, and maybe for events; electronic payment methods; eID for transaction authentication - all are converging in this decade. Two trajectories, ticketing and (using direct bank payment) ticketless travel, feature here this month, plus an update on eID.

Transport Ticketing 2011, hosted by conference organisers Clarion, spanned 2 days at the end of January, and was preceded by a Workshop day. Norman Baker MP, Transport Minister, gave the keynote address, the large hall was crowded, and the Waldorf in Aldwych did us proud. The focus was pan-European - that was because there is an expanding pan-European scope for many of the organisations represented. As part of the inclusive nature of the event, the main conference presentations are downloadable¹, although the Minister's prepared text is curiously neither there nor on the Dept for Transport's web site. Mr Baker was speaking to the theme of the 19th January White Paper on Local Transport, about which the text of his statement to the House of Commons is available².

The tension evident at the conference was between established (but still further evolving) electronic ticketing methods, mostly using dedicated smart cards, and a ticketless method using general purpose bank payment cards with a contactless interface. The strong message is that several methods will co-exist. Transport for London provided a report on their programme to update 20,000 smart card readers to triple function: Oyster, EMV and ITSO; Greater Manchester PTE has a 3 stage programme for acceptance of ITSO and EMV contactless cards on tram, bus and rail. The other UK PTE areas (Centro, Merseytravel, West and South Yorkshire, Nexus, Strathclyde) have not gone that far, today implementing only ITSO, but will they add EMV? There is an attendant industry risk if dual functionality spreads: the smaller technology suppliers may lose out because of the large investment required. ITSO Ltd, however, is rising to that challenge on behalf of its Supplier Sector Members by way of a major investment in a new test and demonstration facility at its relocated HQ in Milton Keynes, along with a commitment to be more commercially aware. ITSO may also become heavily involved with mobile devices operating as smart media: then the holder of tickets is going to be able to view them as soon as the mobile device apps are developed - a big uplift in user convenience.

Across Europe there is already a consortium of rail operators who offer through ticketing - Eurostar is part of that. There is a high level international standard for the type of electronic ticketing methods used in surface public transport: Integrated Fare Management (IFM: ISO 24014) - but it allows for different implementations. Thus we heard about the ITSO Environment in the UK (also available for export) and the VDV implementation in Germany, both IFM compliant. Then there was Calypso (deployed in several municipalities) and Trans Link (Dutch national scheme). But in the wings the European Commission wants far more ticketing system interoperability across the EU. And of course the major suppliers of ticketing systems operate across the EU - and so do the new kids on the block, the bank payment associations with their contactless cards: MasterCard, Visa, and Amex.

So what was missing at TT 2011? Security of information and transactions - that is what was missing.

In the eID area, there is an EU Joint Research Centre (JRC) Scientific and Technical Report: The State of the Electronic Identity Market³. Two of the authors are from the UK: Toby Stephens of Enterprise Privacy Group and John Elliott of Consult Hyperion. Responding to the EU Information Society's Granada Declaration that "electronic identity (eID) will be a key driver of economic recovery in Europe", the authors accept that we do indeed need "trusted, secure and interoperable eID" as "a key enabler of the Single Digital Market", and find that governments will need to drive delivery forward in various ways. Given that the US government's NSTIC project, in a hands-off sort of way, intends to encourage the private sector to deliver eID, I am inclined to think that the EC should back off rather than take forward all of the JRC report's suggested 5 layers of intervention. We have been trying for 8 years to get interoperable eID operating across the EU, but it is now more likely that there will emerge a global consensus at a non-geographical level.

¹ <http://www.transport-ticketing.com/presentations2011>

² <http://www.dft.gov.uk/press/speechesstatements/statements/baker20110119>

³ <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=3739>





World News In Brief

German Mobile Operators Plan New Payment Scheme Using NFC Phones

Three major German mobile operators - Deutsche Telekom, Vodafone Germany and Telefonica O2 Germany, plan to launch their own payment scheme in order to expand their small internet payment service, mpass, to shops and restaurants using NFC phones, a source told NFC Times.

If they implement their plan, the companies would attempt to bypass German banks and established card networks, such as Visa and MasterCard, with a new retail payment brand. They would use their own banking or e-money licence, said the source, who is involved in the project. Germany's fourth major telco, E-Plus, owned by Dutch telco group KPN, also might join, as well.

Deutsche Telekom is rolling out an NFC-based Mobile Wallet program in Germany and three of its other major European markets, Poland, the Netherlands and the Czech Republic. Now, Vodafone and Telefonica O2 who have earlier launched the mpass internet payment service have teamed with Deutsche Telekom to expand its service to the physical point of sale.

FAST Backs UK Government to Tackle £21 Billion IP Theft

The Federation Against Software Theft (FAST) has welcomed the UK government's proposal to set up a central hub for the country firms to report cyber fraud. The recommendation from the Office of Cyber Security (OCS) follows the first government-backed study, which reports that cyber crime costs the British economy approximately £27 billion a year.

FAST's chief executive, John Lovelock, warned that while a truly accurate figure for cyber crime losses could only come from a centralised reporting hub, the OCS figures are an alarm call for government and businesses to focus on tackling a problem that costs the UK economy billions each year.

Intellectual Property (IP) theft has the greatest economic impact of any type of cyber crime, about £9.2 billion a year, with the report highlighting the hardest hit industries as pharmaceutical, biotechnology, electronic, chemical and IT sectors.

The report from the OCS and Detica stated that the average UK business is losing £10,000 a year

because of cyber espionage, extortion and other forms of online fraud. With 2.1 million UK firms registered for VAT this gives a loss per firm of £10,000. The OCS also estimates that the UK government loses £2.2 billion due to cyber crime.

This number is based on total tax and benefit fraud in the UK combined with an estimate of how many of these are due to "criminal attacks". The OCS treated all these attacks as cyber crimes "due in the main to the volume of transactions now conducted online".

Visa Credit Card to Launch Online Payment System for Smartphones

Visa Credit Card will begin rolling out a service that turns smartphones into electronic wallets in the second half of 2011. The company's representatives said the company will use the Near Field Communication (NFC) short-range wireless technology to convert smartphones into online payment devices.

Bill Gajda, global head of Visa Mobile, declared in a statement that the new online payment technology used by the credit card company comes with real-time anti-fraud alerts and other consumer protection systems which are meant to provide customers safe and secure payment transactions. Visa Mobile unveiled and demonstrated its PayWave payment system at the Mobile World Congress 2011.

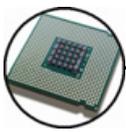
According to company's representatives, Visa would provide a way to turn current smartphones into e-wallets by inserting a microSD removable memory card into the secure digital slots on phone's backside or in a special plastic skin for the iPhone.

Renewal Applications Lost By UK Passport Service

The Identity and Passport Service (IPS) breached the Data Protection Act by losing the passport renewal applications of 21 individuals, the Information Commissioner's Office (ICO) said.

The loss occurred in May 2010 at the passport office that was responsible for processing the applications and the ICO was subsequently informed of the mishap. The missing details included the personal data of the applicants and their counter signatories. All affected individuals were informed and offered new passports and no complaints have been received. IPS, on its part, is taking steps to stop such incidents in the future.





RFID Chips: Adding Speed and Convenience to Fraud

By Tom Tainton, Smartcard & Identity News

According to a recent article in the Sunday Express, millions of shoppers are being put at risk of 'electronic pick pocketing' by gangs of criminals armed with little more than cheaply constructed gadgets.

Anil Dawar, the author of the piece, suggests that the latest 'swipe and pay' chips installed in over 14 million debit and credit cards in the UK are being exploited in a bid to commit ID fraud. Dawar claims that the Radio Frequency Identification chips (RFID) technology can take less than an hour to clone.

IT security consultant Adam Laurie has very strong views about the potential for abuse of RFID technology. Unsurprisingly, he is quoted extensively in the Sunday Express article:

"The whole credit card industry is already in a horrible mess. It relies on the security of a network that has millions of terminals for people to access it from. RFID is a chink in an-already rubbish system."

Not one to sit on the fence, Laurie describes the most typical scam as being when 'one gang member stands next to someone with a RFID card and a £40 electronic reader which picks up the person's details.' The information is then sent to an accomplice with another device which is swiped at the till, leaving the innocent party to pick up the bill.

There are currently 27,000 wave-and-pay terminals in the country, a figure that is set to rise dramatically this year. In fact, experts have forecasted that 25 million of cards with RFID technology will be in use by 2012. The chips are used in new passports, as well as by leading players such as MasterCard, Visa, Barclays, Lloyds and RBS. So is this story reason for concern, or is Fleet Street indulging in some scaremongering tactics?

Currently, the limit on contactless transactions is five £10 payments before the card user is required to enter their pin. This limits the amount it can be abused. Mark Bowerman, PR Manager at the UK Card Association, said: "Contactless cardholders in the UK should not be concerned by these fraud claims. Although it is possible to read information from a contactless card using a method such as this, the information will be of no use to a fraudster, as the data they can access from UK contactless cards in this way will not be sufficient to allow them to create a cloned card to commit fraud."

Thus, to echo Bowerman, although it is possible to extract information from a contactless card using a 'swipe and pay' method, the data that criminals gangs access from UK cards will not be sufficient to allow them to commit significant card fraud. Of course, if someone reads the card and then creates a clone for use in other countries, the result could be far more threatening.

In USA, there are 100 million active RFID-based cards that allow Americans to pay for goods and services without handling the card physically to merchants. However, security expert Walt Augustinowicz believes "convenience comes at the price of making electronic pick pocketing possible". With portable RFID readers and a battery pack available on the internet for less than \$100, scammers can pick up the information being broadcast from the cards such as account numbers and expiration dates, on the laptop, from just a few inches away.

A video of Augustinowicz¹ (<http://www.wreg.com/news/wreg-electronic-pickpocketing-story,0,5636726,full.story>) shows how the theft actually takes place.

A spokesman at MasterCard said: "Our RFID devices are as secure as paying with traditional cards that have magnetic stripe technology. In fact, many consumers feel more secure using contactless technology as the card never leaves their hand".

Representatives for VISA also said its cards have additional safety features to prevent this type of crime. There are ways that a consumer can help to maintain their safety. These tips may seem obvious, but when there's money at stake it's worth mentioning them. The average time between stealing card information and using it has dropped sharply from ten days to just three. Check your online bank account regularly. The fraudsters have figured out the number-increment algorithm that many banks use. Try and ensure the last eight digits of your new debit or credit card are different. In summary, vigilance is the key to prevent any type of crime, online or offline.

¹ Walt Augustinowicz is the founder of Identity Stronghold (<http://www.idstronghold.com> that markets secure sleeves, and ID holders to block RFID hacking.

