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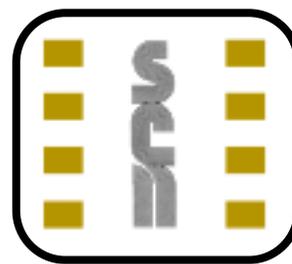
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Dear Subscribers,

Contactless appears to be the thing and that has nothing to do with hygiene although I always thought the beauty of the electronic purse was that in food environments you did not have to handle cash. MasterCard and Visa are pressing forward with their various contactless payment card trials and my understanding is that the Visa model is more secure using digital signatures which can be checked off-line.

MasterCard is to begin trials of a new contactless payment technology, the PayPass wristband. These wristbands are to be given to 5000 American football fans attending Giants Stadium in New York. The bands will be pre-loaded with 25 dollars to be spent at concessions where PayPass is accepted. As wrist bands are currently high fashion making statements from Breast cancer prevention to proclaiming being gay this must be a winner.

I gather that US bank JPMorgan has managed to lose the data on 2.6 million former and current credit card customers. It appears the tapes which contained card holders social security numbers were stored in a locked box and chucked out with the garbage and were then probably buried in a land fill site. The bank has assured customers that they will not be held liable for any unauthorised transactions. That's very big of them but how about losing your identity, who's responsibility is that?

But not to worry Diebold is releasing a biometric fingerprint scanning system designed to enable banks to authenticate the identity of customers at the branch counter. The question here is can you avoid biometrics as the primary personal authenticator? Are biometrics any better than using a PIN? And of course we assume 2-F authentication with a Smart Card or token.

Patsy

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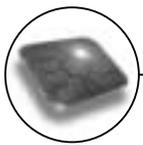
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Smart Card News



Philips Semiconductors Becomes NXP

Philips Semiconductors is now sporting a new name-NXP, for "Next Experience." The company's CEO, Frans van Houten, released the company name during a consumer electronics show in Berlin and follows last month's announcement of Philips' sale of 80% of its semiconductor business to a private investment group.



Philips Semiconductors CEO Frans van Houten announced the company will move forward as NXP, marking a milestone in its 53 year history as it becomes independent from Royal Philips. The name change announcement follows an agreement between Royal Philips and Kohlberg Kravis Roberts & Co. (KKR), Bain Capital, Silver Lake Partners, Apax and AlpInvest Partners NV that will see the consortium take an 80.1% stake in the semiconductor operation with Philips retaining a 19.9% interest. NXP is Europe's second largest semiconductor company and a global top 10 player.

Speaking at the Internationale Funkausstellung (IFA) consumer electronics show in Berlin, Mr. van Houten explained that the company's 'vibrant media' brand promise reflects its leadership in media technologies that enable better sensory experiences for consumers such as superior image and sound quality in digital televisions, mobile phones and other entertainment products. "Today we take control of our own destiny and start to shape the future of the semiconductor industry. We enable our customers to build better products, based on our next generation vibrant media technologies," said Mr. van Houten.

"NXP stands for Next Experience. Put simply, we're enabling the next generation of consumer entertainment products. In order to emphasize the rich heritage that NXP gained from 53 years as part of Royal Philips, the NXP name will be supported by the tagline founded by Philips." Derek Lidow, CEO of iSuppli said, "This largest technology leveraged buyout ever will create a real semiconductor powerhouse. Armed with its independence, and starting out as Europe's second largest semiconductor company, the management team has clearly just started re-writing the history books."

Mr. van Houten confirmed that NXP will continue its current business renewal strategy, which has been underway for 18 months and has contributed to sustained profitability and cost savings, as a strong foundation for the future. The new shareholders support the continuation of the strategy of NXP, which is driving for leadership in five markets on which the company focuses: Automotive, Identification, Home, Mobile and Personal, and Multimarket Semiconductors. Explaining the financial structure of the equity funding, Mr. van Houten confirmed NXP will have over 1.2 billion Euro in cash and credit reserves. This financial buffer will also enable the company to explore options for acquisitions.

Mr. Johannes Huth from KKR, the leading partner in the private equity consortium, added: "We were attracted to a world class business with a global scale and presence. NXP is leading in markets with strong growth characteristics, for example Near Field Communication and digital TV. The business renewal strategy is a strong foundation for future growth, and we look forward to supporting the existing management team as it continues to add value to this business."

A center dedicated to emerging technologies has been established within NXP with close to 600 scientists joining from Philips Research and Applied Technologies, ensuring continued innovation. In total, NXP now has over 6,700 engineers in research & development. NXP will remain headquartered in Eindhoven, the Netherlands. "We want to be a leader in everything we do," said Mr. van Houten. "NXP already has number one market share in areas such as TV chips, contactless identification for e-passports, RFID for electronic ticketing in public transport, car radio digital signal processors and key mobile phone system solutions."





Smart Cards

NXP Technology for US ePassport

NXP, the newly independent semiconductor company founded by Philips, has announced that the United States Department of State has chosen NXP as one of its suppliers of secure semiconductor technology for its new electronic passport (ePassport) program. The new passports, designed to enhance border security and to facilitate international travel of US citizens, contain secure contactless smart chip technology inside the cover. They can be scanned at authorized passport control points to speed the authentication process and increase security. The new ePassports will be rolled out across the United States by the end of the first quarter of 2007.

SIM Card Production in India

Giesecke & Devrient (G&D) has disclosed that it is readying a production facility in India to support the country's booming market with Subscriber Identity Module (SIM) cards. With a population of 1.1 billion, India is among the world's fastest growing chip card markets. There are already around 65 million wireless customers with SIM cards in their mobile phones, and that number is increasing by around 20% annually. The use of payment transaction cards, too, is growing rapidly throughout the country, at a rate of 35% per year.

G&D says when working to full capacity, the plant near Delhi will be the largest of its kind in India. Besides SIM cards for mobile communications, the plant will also be producing cards for other applications such as electronic payment and ID cards. The plant is located in the east of Delhi and designed for an annual production capacity of more than 40 million chip cards.

Smart Cards for School of the Future

The School District of Philadelphia, USA, has teamed up with Microsoft to create what they class as the "The School of the Future". This new School is aimed at enhancing learning through innovative approaches and enhanced technology. One of the technologies being used at this School are Smart Cards for all 170 Students during the 2006-07 school year. Each student will be provided with a Smart Card. Instead of standard combination lockers, students will be able to open their lockers with their Smart Cards.

The cards will also be used for entrance to the school's interactive learning centre and food court and to log in to their online accounts. The cards will also track purchases made at the food court and will track the caloric intake of the students' daily diet. Additionally, the cards will also provide data on nutritional values.

UK ID Costs to Reach £19.2 Billion

In the UK press it has been reported that the new UK ID Card scheme has already cost the UK £46.4 million since May 2003. The figures were revealed in a written answer to Liberal Democrat MP Lembit Opik, who described the "unworkable scheme" as a "waste of money". Other MPs have expressed their concerns about the cost. The Home Office has estimated that the cost will continue to spiral and reach £19.2 billion in the next decade. Mr Opik added: "The money the Government has spent on the ID cards scheme so far could have put over 150 new police officers on our streets for a decade.

US Federal ID Cards Contract

BearingPoint Inc., has announced they have received a five-year, \$104 million contract to develop government identification cards for all federal employees and contractors -- the first such contract awarded in the effort to standardise ID cards to include such biometric information as fingerprints. Not all agencies have to opt in to the BearingPoint contract, but it provides an alternative for smaller departments that may not have the money or time to secure individual ID-related contracts, said Viki Reath, a spokeswoman with the General Services Administration.

Poland Selects Gemalto for e-Passport

Gemalto has announced it will supply its Setec e-passport solution for the future Polish electronic passports. The first commercial deliveries started in July, and under the frame agreement, Gemalto will provide the Polish Printing State Agency (PWPW) with the inlays for electronic covers of the future passports to be provided to Polish citizens. In compliance with the European Union recommendations, Poland started issuing electronic passports for their citizens during August 2006.

A successful pilot phase including over 3,000 diplomatic e-passports took place earlier this year, confirming Gemalto as the main supplier for the global roll out handled by the Polish Ministry of Interior and Administration.





New US Passports Use Infineon Chips

Infineon Technologies has announced that it received a multi-million piece purchase order from the United States government to supply its highly-secure integrated circuit technology for the new electronic passport.

Smart Cards for Qatar Transport

Mowasalat, a transport company in Qatar, has launched a new multi-ride Smart Card known under the marketing name as Faresaver to go on sale starting from August 24. Ahmed Al-Ansari, Marketing Manager of Mowasalat said, "These cards will greatly enhance the convenience of bus travel, while saving the user money at the same time. Mowasalat is committed to continue to work hard to provide excellent services without sacrificing its standard and quality". The Faresaver will be made available at Mowasalat's Al Ghanim Bus Station where a personalised card will contain the holder's picture and details.

\$1.5m SuperCom e-Passport Pilot

SuperCom Ltd has signed a \$1.5 million agreement, with a European country, to supply its Magna end-to-end solution for the production, management and personalisation of biometric passports. The 16-month pilot program will produce a personalised passport that includes personal details, photo identification, digital signature and biometric data. The electronic passport will be compliant with European and International Civil Aviation Authority (ICAO) standards.

In addition, the passport will contain advanced security features including a high capacity contactless crypto processor chip with operating system for the secure storing of biometric data of the holder. In April this year, SuperCom was awarded a similar contract for the implementation of a biometric passport issuing and control system for a European country.

Wells Fargo Begins Card Rollout

Wells Fargo & Company has begun issuing Wells Fargo Visa Platinum Credit Cards and Wells Fargo Visa Signature Credit Cards with Visa Contactless to customers, and is on track to distribute 400,000 cards by the end of 2006. Wells Fargo is distributing contactless cards to select customers as a replacement to their expired Wells Fargo Visa Platinum Credit Cards and Wells Fargo Visa Signature Credit Cards.

INSIDE Powers Wells Fargo Rollout

INSIDE Contactless' MicroPass platform has been selected as the initial chip platform for Wells Fargo's launch of Wells Fargo Visa Platinum and Wells Fargo Visa Signature contactless cards. These cards are produced by CPI Card Group and powered by INSIDE Contactless' MicroPass platform.

Smart Card Parking Meters for US City

Mayor John M. Fabrizi of the City of Bridgeport, Connecticut, has announced the launch of 100 downtown Bridgeport parking meters using the Parcxmart Card technology, which allows individuals to pay for parking and make purchases from participating merchants. Smart Card compliant meters accept both the Parcxmart Card or coins for payment. Eventually, Bridgeport plans to replace all of its parking meters with Smart Card compliant meters that take either the card or coins instead of coin-only meters. Bridgeport is the second city in Connecticut to adopt the Parcxmart regional card solution

Smart Card Licence on the Move

The Australian Government of Queensland has called for expressions of interest for its long-awaited Smart Card driver's licence. The system was expected to be introduced this year, but privacy and technological issues delayed the project. Work on the replacement card began in 2003, with an eight-week community consultation in October-November, followed by a request for proposals from the commercial sector early the next year. The project, expected to reduce the risk of identity fraud and ease access to government and commercial services, was costed at about \$60 million.

RBS Trials Contactless Payments

The Royal Bank of Scotland (RBS) have teamed up with MasterCard for the first UK trial of the contactless debit card which uses Radio Frequency Identification (RFID) technology. The new technology allows consumers to make low-value payments (up to £10) by simply tapping or waving a card - or even a mobile phone, key fob or watch - on a reader at the point of sale.

RBS has been testing the card and has said the trial had been successful, but it was too early to say how soon the cards would be available. The card has all the protection the bank usually offers if lost or stolen and is blocked if unusual use is detected.



Saudi Uni Establish Smart Card Lab

The computer engineering department, at King Fahad University of Petroleum & Minerals, Dhahran, Saudi Arabia, has established a Joint StepNexus / KFUPM Smart Card & RFID (Radio Frequency Identification) Laboratory. Dr Wasim Raad, coordinator of the new lab said: 'the new lab will have great potential in supporting innovative projects in Smart Card applications conducted by students.

StepNexus has provided KFUPM with MULTOS Smart Card programming tools, dual interface readers and MULTOS Smart Cards which will enable the lab to help in providing consultation and technical training to the local industry in various aspects related to Smart Card systems, particularly in supporting the national ID project of the kingdom in addition to e-Payment and health care projects". Current projects include: e-Passport, e-Business, access control, pre-paid energy and RFID based wearable systems for health care projects. The new lab will also support research in various areas related to Smart Cards & RFID.

BearingPoint Finalist for TWIC

BearingPoint Inc has been selected by the Department of Homeland Security's (DHS) Transportation Security Administration (TSA) as a finalist in the competitive search for a technology integrator that will design, manage and implement a nationwide roll-out of the Transportation Worker Identification Card (TWIC). The TWIC program is one of the most important homeland security initiatives to be launched by the federal government since 9/11. Once implemented, the TWIC will increase security at seaports, airports, railways, pipeline, trucking, and mass transit facilities by creating a standard credential that can be issued to all transportation workers who have access to those facilities.

Inside Secures \$25m in Funding

Inside Contactless has closed a new funding round of US\$25 million led by Granite Global Ventures (GGV). The other new investor for this round was EuroUs Venture. Current investors who contributed to half of the total amount of this round led by Sofinnova Partners, now the largest shareholder, include Vertex Venture Capital, Vertex Management, GIMV, and Siparex Ventures. This funding will allow INSIDE Contactless to further expand its sales and marketing presence in Asia and the United States.

Smart Card Trial on Sydney Buses

The New South Wales (NSW) Government in Australia is calling for 1000 volunteers to trial a Smart Card system on Sydney's public transport. NSW Transport Minister John Watkins has announced that the first public trial of the TCard Smart Card ticketing system would begin on several bus routes in October. The TCard system was designed to allow commuters to travel on all trains, buses and ferries in Sydney with one card, and is expected to be in operation by the end of 2007.

Athena Acquires Smart Card OS

Athena Smartcard Solutions has acquired Aspects Software's Smart Card OS assets including the Aspects OS755 Java Card and development platforms. The OS755 Java Card product family includes innovative FIPS approved operating systems for Identity and multimedia (SD/MMC), Visa approved banking and GSM solutions. This move strengthens Athena's Smart Card expertise, adding open platform products to its established line of cryptographic Smart Cards.

Smart Voting for Swedish Parliament

ACG Identification Technologies has announced that its HF Multi ISO reader has been selected for the new voting system in the Swedish parliament (Riksdagsförvaltningen). In addition to enabling faster and more secure voting operations, the solution will also enable representatives, when parliament approves the measure, to conveniently vote from any seat in the parliamentary chamber. The new voting system is based on the contactless mifare ID cards already issued to all members of parliament for access to the government building. The ACG readers are being installed in various places inside the voting chamber.

Garanti Bank Goes Contactless

On Track Innovations Ltd. (OTT) is providing Garanti Bank of Turkey 'Tap & Go' inlay solutions. As previously announced, Garanti bank is reissuing "Tap & Go" cards, which use MasterCard PayPass technology, to its Bonus cardholders. Mehmet Sezgin, General Manager, Garanti Payment Systems, said: "OTT's extensive experience provides a reliable and cost-effective way to bring contactless solutions to our market. The possibility of any form factor necessary such as inlays, key fobs, wristwatches, including reader solutions, will help us differentiate ourselves in Turkey's highly competitive payments market.



Smart Cards for Sentosa Resort

Inside Contactless has been chosen, together with packaging partner - China Global Intelligence, to supply 5 million thermal printed tickets and Smart Cards using its low cost dual standard memory chip, PicoPass, to Sentosa, Singapore's Resort Island. These tickets and Smart Cards will be used for admissions and purchases at the various attractions, retail and food & beverage outlets on the island. The Picopass chip for the Sentosa tickets comes with 2Kbits memory, 4 times greater than the 512 bits memory specified for the tender, providing the Sentosa with greater flexibility for data storage of the card applications.

Smart Card Support for BlackBerry

SafeNet Inc has announced Smart Card support for BlackBerry from Research In Motion (RIM). Currently, all BlackBerry handsets that are Bluetooth-enabled have the ability to use the BlackBerry Smart Card Reader for two-factor authentication. Used together, the wearable BlackBerry Smart Card Reader and SafeNet's Smart Card 330, will further ensure that access is only granted to authorised users. The combination of SafeNet's Smart Card 330 and the BlackBerry Smart Card Reader adds an additional layer of security for BlackBerry users.

L-1 Receives \$25m DoD CAC Contract

L-1 Identity Solutions, a provider of advanced technology identity solutions, has announced that it has received a new five-year \$25 million award to continue to support the production of secure, smart credentials as part of the Common Access Card (CAC) program for the United States Department of Defense (DoD).

Europay, MasterCard & Visa

VeriFone's Acquires Lipman

VeriFone Holdings, Inc and Lipman Electronic Engineering Ltd have received clearance from the United States Department of Justice (DOJ) to complete VeriFone's pending acquisition of Lipman. Shareholder meetings for each company are scheduled for mid-September and, if each group of shareholders approves the transaction, the parties expect to close on November 1 following the expiration of a 30-day waiting period required by Israeli law after the Lipman shareholders' meeting.

VeriFone Acquires Trintech Business

VeriFone Holdings Inc has announced that it has agreed to acquire the payment systems business of Trintech Group PLC in an all-cash transaction. The acquisition includes a range of payment systems that will support and extend VeriFone's existing offerings for merchants and financial institutions. VeriFone will take over distribution of those products and will provide existing customers with service and support. Under the terms of the Agreement, VeriFone will pay Trintech \$12.1 million cash for all of the outstanding shares of a newly-formed subsidiary which, prior to closing, will hold substantially all of the assets and liabilities of the payment systems business of Trintech.

\$2.5m Follow-On Order for Lipman

Lipman Electronic Engineering Ltd has announced that it has entered into a US\$2.5 million contract to supply NURIT 8320 and NURIT 8000 Point of Sale terminals and NURIT 222 PIN Pads to the Industrial and Commercial Bank of China (ICBC). This order will enable the expansion of a previously announced joint project between ICBC and China National Petroleum Corporation (CNPC) to equip CNPC petrol stations with Lipman terminals. CNPC will be using these additional terminals to extend the project from the initial 8,000 petrol stations to more than 14,000 stations, resulting in one of the largest POS terminal deployments in China to date.

AUB Receives EMV Certification

Bahrain-based Ahli United Bank (AUB) has received EMV certification from MasterCard and Visa. This means all of its ATMs are capable of processing Visa and MasterCard EMV chip cards to help protect against fraud.

Radio Frequency Identification

Australia's 1st RFID-Enabled Prison

Australia's first prison will be RFID-enabled, allowing real time tracking of prisoners and staff. The \$128.7 million, 374-bed development will accommodate both male and female prisoners and is expected to open early in 2008. Prisoners at the facility will be fitted with a bracelet or anklet carrying a unique identifier. Similarly, prison guards will wear pagers emitting a radio signal. The position of prisoners and staff will be determined by triangulation of the signals, read by several readers.



The RFID technology will not determine absolute position, with a read range between 2-20 metres and a transmission interval of less than 8 seconds.

RFID for German Libraries

KI Logistex has won a contract from Hamburg Library (Hamburger Öffentliche Bücherhallen (HÖB)) in Germany to deliver a fully automated RFID-based item-handling and sorting system for Hamburg central and 17 city libraries. The FKI Logistex solution provides HÖB with advanced ergonomic workflow for library staff, highly accurate library holding information, faster check-in and check-out of library materials, and more convenience overall for both library patrons and staff. The contract also includes a 10-year support agreement. HÖB has a yearly circulation of approximately two million items. The fully automated FKI Logistex system features subsystems for check-in, check-out and sorting of items including books, magazines, CDs, DVDs and videos.

Infineon Expands RFID

Infineon Technologies AG has announced availability of two new RFID (Radio Frequency Identification) transponder chips for item tracking applications in logistics and manufacturing environments. The my-d light and the my-d vicinity HC RFID chips, which operate at the global 13.56 megahertz radio frequency band, add applications-specific capabilities to the Infineon RFID product line-up. The my-d light RFID chip is used for brand protection and supply chain item tracking as well as asset and inventory control, such as library and media management applications. The my-d vicinity HC RFID chip is used for applications that require exceptionally small-sized labels or tags, such as laundry management.

Man City FC to Trial NFC

The new UK Premiership season will see around 100 of Manchester City's 30,000 season ticket holders using a new mobile phone technology to gain access to the ground, and pay for goods at all of the retailers, within the City of Manchester Stadium. Manchester City's fans will be the first people in the UK to become part of a trial using Near Field Communication (NFC) technology. Philips, is working with the club to undertake the mobile phone technology trial, after several highly successful pilot projects worldwide. The trial means fans will use an NFC-enabled Nokia handset to simply swipe against a reader to act as a ticket to the game or as an electronic wallet.

NFC Forum Targets Wireless NFC

The NFC Forum has announced the publication of its first four specifications. NFC operates in the 13.56 MHz frequency range, over a typical distance of a few centimeters. The underlying layers of NFC technology are ISO, ECMA, and ETSI standards. The new specifications make it possible for any manufacturer to create NFC-Forum-compliant devices that will be interoperable with other manufacturers' devices and compatible with the NFC-Forum-compliant offerings of service providers, ensuring successful communication between devices and tags.

NFC Specifications Paves the Way

Innovision Research & Technology plc believes that the four new technical specifications just published by the NFC Forum will pave the way for the widespread commercial deployment of its Topaz low-cost NFC tag within consumer electronics and mobile applications. Heikki Huomo, CTO at Innovision Research & Technology, said: "Practical NFC applications have already started to emerge over the past year or so. However, as a result of the NFC Forum publishing this first wave of technical specifications, the road ahead is now clear for full-scale commercial deployment of NFC technology".

Financial Results

Gemplus May Not Meet FY Outlook

Gemplus International, which is in the process of being merged into Gemalto, said it 'no longer expects to meet its financial performance outlook for 2006.' Gemplus cited 'market conditions that will remain challenging' and 'uncertainties in the global economic environment'. Because of the level of its integration within Gemalto, the company will not provide further guidance on future earnings expectations on a stand-alone basis, it said.

NBS Reports 3rd Quarter 2006 Results

For the third quarter ended June 30, 2006, the Company recorded a net loss of \$3.2 million, or a loss of \$0.09 per common share, compared with net loss of \$5.1 million, or a loss of \$0.13 per common share in the third quarter of fiscal 2005. Revenue for the quarter totalled \$11.2 million, a decrease from \$17.0 million reported in the third quarter of fiscal 2005.



Gross margin percentage improved in the third quarter of 2006 to 34.9% from 27.0% for the three months ended June 30, 2005. The improvement is a result of Payment Solutions representing a larger percentage of total sales in the period and an inventory write down in 2005 of \$0.9 million.

OTI Reports 2nd Quarter Results

On Track Innovations Ltd. (OTI) has announced its consolidated financial results for the second quarter ended June 30, 2006. They reported their revenues to be \$10.30 million for the three months ended June 30, 2006, an increase of 32% compared to \$7.80 million in the same period last year. Their gross profit was reported to be \$4.49 million, an increase of 62% compared to \$2.76 million in the second quarter of 2005. This means that OTI had a gross margin of 44% compared to 35% in the second quarter of 2005.

ERG Loss Jumps to \$74.8m

ERG Group has announced a net loss of \$74.8 million, blaming new accounting treatments for a 10-fold blow-out on last year. The 2005-06 result, which came after a significant write-off, follows a loss of \$7.3 million in the previous year. The company's revenue had also declined from \$227.5 million the 2004-05 financial year to \$187.4 million in 2005-06, which ERG attributes to revisions to major supply project costs to bring the company into line under the percentage of completion accounting method.

SuperComs 2nd Quarter Results

SuperCom Ltd has announced its unaudited financial results for the quarter and six months ended June 30, 2006. Revenues for the second quarter ended June 30, 2006 were US\$1.8 million, representing a decrease of 16% from revenues of \$2.1 million as reported in the second quarter of 2005. Sequentially, revenues decreased by 9% from \$2 million as recorded in the first quarter of 2006.

Gross profit for the second quarter 2006 was \$1.1 million or 61% of revenues, compared with \$949,000 or 44% of revenues in the second quarter 2005. Sequentially, gross profit grew by 3% from \$1.2 million or 58% of revenues reported in the first quarter of 2006. Revenues for the half-year were \$3.8 million, representing a decrease of 20% from revenues of \$4.8 million as reported in June 2005. Gross profit for the half year 2006 was \$2.3 million or 59% of revenues, compared with \$2.3 million or 49% of revenues in June 2005.

On the Move

ID Data Increases Sales Team

ID Data Systems has announced seven new additions to its Sales Team. Their role will be to promote ID Data's new low cost, high volume operations within the European plastic card arena. Andrew Murgatroyd, Luke Fishlock and David Greenaway have just completed their sales induction exposing them to all aspects of ID Data's business. Two other new members, Joanne Murray and Christine Hoskins, have also joined the UK Account Management team. To strengthen ID Data's Central European presence, Sylwia Adamczyk, based in Poland, has also been appointed.

New Board Member at SuperCom

SuperCom Ltd as announced that Neil C. Livingstone, has been appointed to the Company's newly created Advisory Board. Livingstone is the CEO of GlobalOptions Inc., a Washington-based international risk management and business solutions company. The Advisory Board was established to enhance SuperCom's presence in the United States and other nations, and to help identify new applications for the company's technologies in the homeland security, defense and document authentication markets. Livingstone joins the recently appointed Chairman, former CIA director R. James Woolsey with additional Board members to be announced in the future.

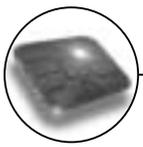
QI Systems Appoints New Director

QI Systems Inc has announced that Mr. Robert I. McLean Jr. has been appointed as a Director of the Company by the Board of Directors. Mr. McLean joined QI Systems on August 22, 2005 as the Company's Chief Financial Officer and Chief Operations Officer.

New Board Members at Inside

Inside Contactless has announced the arrival of Christian Janin as new Chief Financial Officer, and the appointment of Patrick Jones as non-executive Director of its Managing Board. INSIDE continues to build a top-tier management team with the appointment of Mr Janin as CFO and Eric Alzai as Chief Technology Officer. Bruno Charrat is now named Chief Scientist and Vice President NFC Product Line.





The SIM Card Turns Fifteen

Dr Klaus Vedder, Head of Telecommunications, Giesecke & Devrient (G&D)



Dr Klaus Vedder

In 1991, Giesecke & Devrient sold the first 300 SIM cards to Finnish wireless network operator Elisa. Since then, the miniature chip cards located inside mobile telephones have advanced to become the most successful kind of Smart Card ever, with over five billion cards sold worldwide. No other Smart Card has taken the world by storm the way the Subscriber Identity Module (SIM) has. Since it was introduced on the market 15 years ago, the SIM card has seen its power and performance soar. At first, it "merely" served security and personalisation functions in GSM networks. Today, it turns mobile phones into versatile, secure terminals for wireless customers.

Giesecke & Devrient (G&D) has played a key role in the development of the SIM card from the outset and is presently the world's number two SIM supplier. This summer, the SIM industry is celebrating a special anniversary. It was 15 years ago that the first commercial SIM cards were delivered to Finnish mobile communications corporation Elisa, at that time still known as Radiolinja. In its initial stages of development, the SIM card was intended to make mobile telephony in GSM networks as secure as talking on the phone of a fixed-line network. To accomplish that, it was designed to clearly establish the identity of wireless customers in order to prevent mobile networks from being abused. Additionally, it was meant to safeguard the confidentiality of user data. Its second key feature was its flexibility. Whenever customers changed phones, the SIM card could simply be transferred to the new handset.

"Fifteen years ago, Radiolinja was a pioneer in the implementation of new mobile communications technologies, both in Europe and around the world. We showed a correspondingly positive attitude towards the new medium of the SIM card, the security features of which had us convinced from the very beginning," says Kari Partanen, VP of Interconnection and Roaming, Elisa and, as the third employee of Radiolinja, one of those around when the first SIM card order was placed.



Elisa currently plans to make extensive use of the strongly increased performance capability of the SIM card for new mobile services, digital signatures for example. A SIM card with integrated contactless technology is also in the pipeline. That would enable Elisa subscribers, for example, to purchase and validate tickets by simply waving their mobile phones past a reader.

The first SIM cards in 1991 cost approximately 15 euros and had very limited memory of only three kilobytes for specific user data and relatively low computing power. Today's most widely sold SIM cards offer 64 kilobytes of such storage, with the price only a fraction of what it was in 1991. Their combination with traditional storage methods (flash memory) widens the card's performance range considerably. With memory sizes in the mega- or even gigabyte range, the Subscriber Identity Module becomes a standardised medium for numerous secure, mobile value-added services, such as entertainment, payment, and ticketing. The coming high-speed interface between the SIM card and the handset will also provide the means for efficient digital rights management of downloaded files.



Over the past 15 years, the SIM card has enabled us to do a lot for mobile communications, and the future looks promising. With G&D's GalaxSIM card, which offers up to 512 megabytes of memory, we have opened up the door to storing music files, video clips, and even extensive phone books. ProxSIM, G&D's SIM card for contactless interfaces, enables handset and reader to exchange data over the air.

Today, SIM cards from G&D turn mobile phones into multifunctional lifestyle tools and, above all, instruments of personal security. I am certain the SIM card, in the hands of network operators, will expand its key role as a secure, portable module in these times of growing need for security.





How Real is NFC?



By Dr David Everett, Principal Consultant, Microexpert Ltd



Dr David Everett

You can't help being attracted by the technology of mobile phones with most of the Western population carrying at least one in their pocket. So the use of SIMs and now contactless technology using the NFC (Near Field Communications) standards looks like another dream technology application for smart cards. The question is whether it will ever happen outside of a few niche markets? Philips and Sony were the founders of this work which was originally published by ECMA as ECMA-340 and ECMA-352 but then adopted by ISO as ISO/IEC 18092 and ETSI as TS 102 190. Not surprisingly the standards are compatible with ISO 14443 Type A standard and the Mifare (Philips) and Felicia (Sony) specifications. So what is NFC all about? Well it really does three things:

- 1) The NFC device can act as a passive Smart Card such as a Mifare card. In an NFC mobile phone for example you could have your transport application (e.g. Oyster or Octopus) such that you touch the phone on the access gates instead of the contactless Smart Card. Equally it would be possible to have some payment application stored in the phone so that at the store you touch your phone on the POS terminal when you want to pay for your goods.
- 2) The NFC enabled device can act as a contactless Smart Card reader. So in the case of a mobile phone you get a portable smart card reader with a keyboard and display. There are numerous applications only limited by one's imagination but in general one of the best approaches is to envisage that bringing the phone in contact with the contactless tag enables an automatic route for WAP navigation on the phone to the content associated with the tag. You could be wandering around a museum, touch the tag in front of the exhibit and then behind the scenes the phone can contact the content provider and download information about the exhibit to be displayed on your phone.
- 3) Network access, this was the main driver for NFC where the proponents were concerned about the complexity of setting up network connections between devices. Establishing a Bluetooth or Wi-Fi connection for example requires a configuration process which many people find closer to witch-craft than any form of transparent user operation. In use you might imagine that you want to transfer programs or content such as photos between your phone or PDA with your computer. You touch the phone on the sweet spot of the computer and bingo it's all done.

Powerful stuff but will it ever really take off? As always it's a horse and card scenario, will the phone manufacturers install NFC as standard? Does the consumer want to solve the problems identified above? At the moment you can get NFC phones from Nokia (3220), Samsung (X700) and Sagem although I think I should point out that 'get' is a colloquialism for tomorrow, someday, perhaps. Nokia erratically respond to emails but just be warned you need the phone, the NFC shell and the software development kit. Even if you get the first two the SDK will keep you busy and set you back 5000 euros if you can find it. The other NFC phones are even more hidden under the surface and this is some 3 or 4 years after we were told all phones will soon have an NFC interface.

So the US\$64,000 question, 'does the consumer want it'? In simple terms, can I do something new that I want to do or can I do something that I currently do better? So taking 1 - 3 above; **A)** Put the Smart Card in a phone - I can't see people wanting all their eggs in one basket and do you trust your phone with your credit card? **B)** The mobile phone as a portable reader - well this is attractive in many applications but the trouble is that the application would also need to be a standard or otherwise you would need hundreds of applications in your phone, oh and how do you get the application on the phone, sounds like a bit more witch-craft. **C)** Network access - yes another needy cause but in principle you don't need NFC to solve the problem. As with any network configuration what you really need is to automate the process whilst making sure the consumer knows what is going on at the lay-man level. This is really more about better software in the phone.

Seems to me that NFC although an excellent application of the technology is really a long way off in terms of the consumer proposition unless you know otherwise.....





The Price-Sensitivity Curve for RFID

Dr Peter Harrop PhD, Chairman, IDTechEx Ltd

IDTechEx

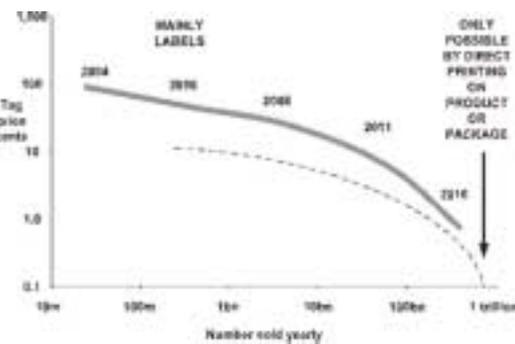


Dr Peter Harrop

The correlation between the volume and pricing of RFID tags has been a much-debated topic in recent times. Lately, some RFID tags have been sold at high profit and others literally given away. Yet more have been sold at a considerable loss by operations of doubtful viability and all this conspires to make it seem that there is no obvious price-volume sensitivity curve for RFID tags. However, some numerate view is essential for those planning to sell equipment making RFID tags, those making the tags themselves and those intending to use them. Fortunately, clarity is possible if we simplify the problem.

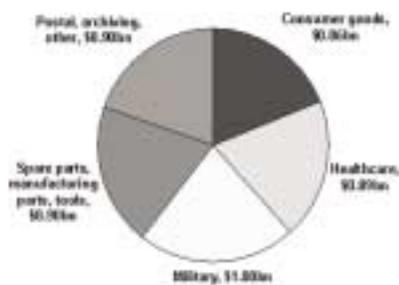
The big picture: First consider the overall situation. In IDTechEx projections for the next ten years, the average tag price expected is illustrated in the diagram below. This includes active and passive tags of all shapes and sizes and among the passive tags are ones that cost up to \$8 each to meet very high military and aerospace requirements. At the other extreme, it includes some tags printed directly onto products and packaging in 2016. The dashed line is a rough indication of the lower limit of price by year and quantity, excluding giveaways and highly loss-making commitments.

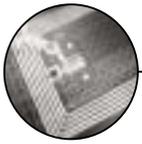
For example, a shakeout is due among those supplying highly loss-making straps, inlets and labels for pallets and cases. The price-volume sensitivity for RFID in the form of high-volume labels is lower than the all-embracing curve shown above. This is because labels address the more price sensitive markets in the main, these being the ones with potentially the highest volumes. However, the price-volume curve for high-volume RFID labels should be no lower than for anti-theft EAS labels for reasons can be seen to the right.



Price-sensitivity for high volume label production: To establish the price-sensitivity for RFID label production, we must exclude systems where the tag cost is the minor part of cost of ownership of the RFID system. In such cases, the tag cost has only a second order effect on sales. That leaves most of the high volume applications. Secondly, we must recognise that there will be a spread of possible outcomes. Even up to very high volumes, organizations will be fitting RFID for very different reasons - often ones that are difficult or impossible to quantify. For instance, Philip Morris and the China National Tobacco Monopoly together ship 63 billion packets of cigarettes yearly and dearly want RFID, primarily for anti-counterfeiting. At what price? It depends how they do the calculation. Another reason for a spread of price-volume curves lies in the fact that legislation, mandates and pressure from organisations such as the Food and Drug Administration (FDA) encourages adoption before the tipping point of price in certain applicational sectors. Excessive competition in certain sectors also distorts the situation.

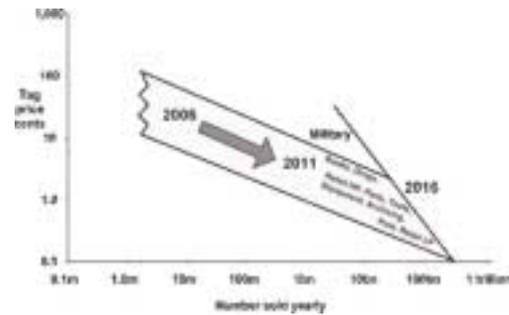
Ten year outcome: Where are we headed? There will be a rather even distribution in value (not numbers) of item level RFID tag sales between the main applications in 2016 as shown below. Some will be on a trajectory of relatively high price, tough specification such as military and some the opposite. For example, military tags will average \$9 for 2006, this encompassing active tags for tens of dollars and passive tags for pallets and cases at much less. Then there's intermodal containers - all active - starting at \$29 average in 2006. Smart Cards - all passive - start at \$2.2 average in 2006 and vehicle tagging at \$9.5. However, most active tags are in systems where the tag cost has little influence on numbers sold because it may be only 20% of cost of ownership.





IDTechEx has plotted an envelope which encompasses individual trajectories for given product families such as books or drugs. Mainstream postal items and low priced consumer goods have the lowest price trajectories. By contrast, there may be around three billion drug packages shipped in 2011 with RFID labels at around seven cents.

Given the compelling paybacks already demonstrated by the British and Japanese, there may be as many as ten billion high priced retail goods, such as apparel, tagged in 2011 but only if work in China and elsewhere gets the label price down to around 3.4 cents. However, the uncertainties are such that many of these numbers could be halved but the price doubled. The IDTechEx projections for each category are given in the new report Item Level RFID Volume One - Forecasts 2006-2016, Technology, Standards. The overall price-volume sensitivity envelope is shown to the right.



A cross check: We can do something of a cross check of the above price sensitivity envelope by considering EAS anti-theft labels. These have already sold in much larger numbers than RFID labels. The single payback on these anti-theft labels is inferior to the multiple paybacks for most RFID labels, particularly for the largest RFID markets, which are at item level. Therefore RFID label sales should bear a similar or higher price for a given volume. Indeed, RFID label selling prices are often additionally driven by safety and security benefits not relevant to anti-theft labels.

For anti-theft labels on items, we reached the current global consumption of six billion labels yearly when cost dropped to one to five cents. Earlier, it was a one billion yearly unit market at five to eight cents. These points actually come within our above envelope for RFID, showing that we are not being over-optimistic about the prices that can be reached with RFID labels in volume uses where the label is a major part of cost of ownership of the system.

Events Diary

October 2006

- 03-06 2006 Smart Card Alliance Annual Conference - *San Diego* - www.smartcardalliance.org
- 03-05 RFID for Government 2006 - *Washington, DC, USA* - www.aliconferences.com
- 08-11 ICMA Expo - *Athens, Greece* - www.icma.com
- 09-10 NFC Germany 2006 - *Frankfurt, Germany* - www.scievents.com/nfceu06
- 09-12 Cards Africa - *Johannesberg* - www.terrapinn.com/2006/cardsza
- 11-12 Infosecurity (Netherlands) - *Utrecht* - www.infosecurity.nl
- 13 Maximizing Software Security & Sales - *Orange County, CA* - www.aladdin.com
- 18-20 Biometrics 2006 - *London, United Kingdom* - www.biometrics2006.com
- 18-19 Gartner IT Security Summits 2006 - *London* - www.gartner.com
- 26-27 CorporateIdentity Mngement in Financial Services - *Barcelona* - www.jacobfleming.com

November 2006

- 07-09 CARTES 2006 - *Paris, France* - www.cartes.com
- 07-09 RFID/USN KOREA International Exhibition & Conference - *COEX Atlantic Hall, Korea* - www.kcfairs.com/exhibit.php?sub=sub_12
- 15-16 Smart Label Summit Europe 2006 - *Amsterdam, The Netherlands* - <http://smarteuropa.labelsummit.com>
- 28-30 ID World 2006 - *Milan, Italy* - www.idworldonline.com
- 30- 01 Dec 3rd RFID Opportunities for Transport & Logistics Providers - *Scottsdale, Arizona, USA* - www.eyefortransport.com/rfid2006



Is EMV a Sound Investment? The Jury's Still Out

By Marc Abbey and Eric Wu, First Annapolis Consulting



With the exception of the United States, every economic region has a migration plan for transitioning to the card Associations' chip-and-PIN technologies, known as EMV. The acronym stands for Europay/MasterCard Worldwide/Visa International and is the international standard for smart payment cards. The United Kingdom leads all markets in the EMV transition and provides the most insight into how EMV will perform relative to the primary assumptions underlying the migration. EMV in the UK has been, in many senses, a technical triumph. However, early returns from the UK underscore a somewhat speculative system-wide business case.

Winners and losers: The benefits to the system and the benefits to individual participants are totally different matters. EMV migration includes intra-system transfers designed to distribute benefits and create an incentive for individual parties to take certain actions. Chief among these are interchange subsidies and liability shifts. These are redistributions and are not system benefits, per se (though we will argue later they can be part of the costs to the system). Individual institutions will be winners and losers based on their tactics and whether they are net issuers or net acquirers. Some institutions will have very high returns on investment and rapid paybacks, and some will not. Therefore, individual institutions may have strong business cases even if our thesis regarding the fragility of the system-wide business case turns out to be correct. The card Associations have proved adept at using intra-system transfers to effect a critical mass of support from stakeholders whose business cases are likely much better than the system-wide business case.

System-wide benefits: The primary system-wide benefit of EMV by far is the impact on the issuing side of fraud. EMV largely remediates fraud due to counterfeiting and lost or stolen cards - two rapidly growing sources of fraud in the UK and other markets. (EMV, however, does not totally eliminate skimming-related counterfeit risk: In May, Shell Oil Co. suspended chip-and-PIN payments at 600 gas stations across the UK after thieves siphoned over U.S. \$1.8 million from customer accounts using counterfeit cards that employed data obtained through skimming.) British payment association APACS reported a remarkable reduction in fraud for the year ended December 2005.

Fraud due to counterfeiting and lost or stolen cards is nearly US \$110.5 million below 2004 levels. Measured off recent run rates, 2005 fraud of this type has declined as much as 31%, or US \$147.4 million. This is a remarkable validation of the primary intent of the technology. Unfortunately, not all anticipated benefits from EMV have materialised. One anticipated benefit is reduced authorisation traffic. EMV allows for authentication of the cardholders based on information resident on the chip plus the PIN at the POS. Thus, the business case included the assumption that issuers would authorise less than 100% of the transactions.



This reduction in authorisations would be an acquirer (and system) benefit because it would reduce acquirer operating expenses and a merchant benefit because it would speed POS transaction time, on average. But in the UK, issuers are authorising 100% of transactions, so this benefit has not materialised. This issuer authorization strategy might be temporary; the UK is in the middle of a credit cycle and losses are elevated, but we will only know in time. There is also, in concept, a product-development value benefit of EMV. Specifically, there are wide expectations that chip-and-PIN technology will facilitate product development not possible with mag-stripe technology. This is likely; however, in the UK market, EMV has been (probably wisely) implemented in a single-application environment initially. Though there are tantalising experiments occurring regarding new applications in the loyalty and prepaid spaces, the product development value of EMV is far from concrete.



Leaking interchange reductions: One of the intra-system transfers to facilitate EMV migration was an interchange reduction for EMV transactions on the order of 10 basis points. This represents a transfer from the issuing to the acquiring side. British acquirers report they have retained 40% to 50% of this reduction, passing the rest through to merchants. This pass-through breaks down according to merchant size: Large merchants tend to receive the interchange reductions and small merchants tend not to receive them. There is a ring of fairness and logic to this. In the UK market, the acquirers own the terminals small merchants use (and the acquirers have to invest in terminal upgrades), but large merchants foot the investment bill for upgrading their own integrated systems (although many received direct subsidies).



This leakage of the interchange reduction to merchants represents a reduction in value to the Visa/MasterCard membership. We estimate that the reduction represents leakage with a net present value, optimistically, of about US \$740 million to US \$1.1 billion. If, in the long term, acquirers compete away the interchange reduction, this leakage value will be even greater. This leakage is in addition to the value of the direct investment necessary to implement EMV, which has been estimated widely in the British trade press at US \$1.8 billion to US \$2.8 billion.

The softer side of costs : In addition to these hard costs, there are soft costs. Most British acquirers believe that EMV has contributed to a shift from credit to debit in the UK, although the acquirers are divided on whether this shift is permanent or temporary. The theory goes that consumers are less likely to know their credit PINs than their debit PINs. Therefore, as PINs have become required at the POS, consumers have been incrementally more likely to use debit than credit. Debit is, in fact, growing much faster than credit in the UK. Acquirers are divided on whether this phenomenon has trained consumers to use debit and, therefore, on whether it will persist. The permanence of debit's ascendance is critically important to acquirers because their margins are three or four times higher on credit than debit. If EMV has triggered a substitution of debit for credit, on the margin, it will have effectively increased the cost of EMV geometrically.

Intangible factors: There are other important, intangible costs and benefits. EMV was a complex, extensive systems-development project with opportunity costs on some level for issuers and acquirers alike. Some believe these opportunity costs were actually massive; others dismiss this downside. One potentially sizable benefit of EMV is the avoidance of regulation. It seems unlikely the public sector would have allowed fraud trends in the UK to continue unabated without intervention, which could have had significant negative cost and flexibility ramifications for issuers and acquirers. Likewise, we will never know if fraud due to counterfeit and lost or stolen cards would have increased from historical rates, but there is a credible argument that it would have accelerated.

EMV transactions are fundamentally more secure transactions, changing the nature of data security and the contingent liability the industry faces from data breaches. The self-service aspects of EMV are anticipated to improve merchant POS throughput largely because self-service makes certain processes at the POS parallel rather than sequential (though cynics argue self-service is not systematically related to EMV, per se, and can be implemented in a mag-stripe environment as well).



Certain types of merchants believe the value of improved transaction times at the POS is dramatic, although this is not a system benefit in the way we are using the term because it does not accrue to the Visa/MasterCard membership or generate a return on the investments members have made.

The payback: Concerning the hard costs and benefits of net fraud reduction, interchange leakage, and direct investment, EMV migration in the UK is looking like a payback period investment of 12 plus years, with correspondingly modest rates of return. Most other costs and benefits remain speculative and resistant to quantification. Very few financial institutions routinely invest in projects with these types of characteristics. Discussions about EMV have tended to have an evangelical quality. As an increasing number of markets around the world develop hard results from EMV migrations, the actual business case for EMV will be more transparent and more subject to critical review, for good or ill.



Payments Convergence is Coming



By Andy Brown, Director of Convergence Strategy, ACI Worldwide



With the pressures of increased competition and regulatory change, for example the EU initiative to combine national payments systems within its territory into a Single Euro Payments Area (SEPA), the business of payments is rapidly moving up the banking agenda.

What is payments convergence? Payments convergence is the inevitable rationalisation of payments instruments and operations to remove inefficiencies and maintain profitability. It will result in the removal of functional duplication between payment system silos and the integration of the different payment types which include retail, wholesale, national, regional and international functions.

Why is it important? Banks are struggling with unacceptable risk exposure as well as an extremely poor cost to income ratio in their payment services. McKinsey has estimated that the processing of payments accounts for almost a third of bank-wide operational costs in Europe although only a quarter of revenues is derived from payments and bundled products, resulting in a mere 9% of pre-tax profits. Equally, corporate customers are demanding greater levels of transparency and real-time efficiency. Lastly, consumer expectations are rising with increased frustration at specific payment processing limitations and costs, especially in respect of international transfers.



What is happening to payments? Electronic payment volumes are increasing both in terms of traditional payment methods, but are also driven by the new ways of replacing cash payments that are being introduced. At the same time, banks are steadily moving away from the batch clearing of payments towards real-time authorisation and clearing. Finally, increasing amounts of regulations are being introduced which are affecting payment processing and the associated costs and revenues. Examples of this include the Faster Payments initiative in the UK and the Single Euro Payments Area (SEPA).

How can banks address convergence? Banks will need to take steps to ensure internal systems can handle payments and services across multiple delivery channels, both wholesale and retail. Payments convergence is coming as banks seek to improve their cost management and risk management while also providing improved services to their customers. Transaction growth, competitive threats, customer demand and regulatory pressure are all factors driving convergence. Indeed, we can see the first convergence buds in the banks' race to meet the 2007/8 deadlines for both the Faster Payments and SEPA initiatives. However, these two initiatives are just part of the bigger convergence picture. Banks will no longer be able to operate competitively if they continue to separate their payment processing by regions and have systems that only support specific types of payments within that region. Instead, from a commercial and regulatory point of view, particularly SEPA within the Eurozone, banks must have systems that are standardised across all the countries within which they operate and are also open and flexible enough to be able to cope with M&A activity.



At the same time, banks are struggling to cope with the increasing volumes of electronic payments as they realise that payments can no longer be seen as a back office function but as a crucial revenue-driving activity. Their legacy payment systems may simply be unable to scale to meet demand and worse than that, have significant amounts of redundant functions that all amount to increased cost for the banks. A knock-on effect is that banks are exposed to far higher levels of risk than they should be, principally because they are unable to accurately profile their debit and credit risk, because the systems are siloed and lack adequate reporting functionality. Leading financial institutions are already starting to prepare for consolidation of consumer, corporate, retail and wholesale payment systems.

Payment tsars" have already been appointed in some cases, specifically to deal with convergence. By moving along the path towards enterprise-wide payments solutions, ACI believes banks will not only save time and money, but also improve.



Contactless UK

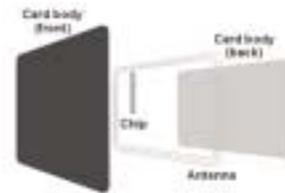
By Jason Smith, Staff Reporter, Smart Card News Limited



Jason Smith

A growing trend in the UK is the introduction of contactless technology. The ability to make fast, convenient information transactions with no actual need for any contact between the information source and reading mechanism. Contactless technology is predominantly used in Smart Cards but can also be implemented into mobile phones, watches, key fobs or documents. Contactless Smart Cards use a radio frequency identification (RFID) chip which provides a wireless connection to the reader (at a data rate of between 106 to 848 kbit/s). These cards require only close proximity to an antenna to complete the transaction.

Contactless technology can be used in applications in which card insertion/removal may be impractical or in which speed is important. Nick Parsons, Managing Director of Ingenico UK, said "Contactless, which has been a vision of the future, is now ready for deployment. It is going to completely change the way we acquire information and pay for goods and services."



Current and emerging applications using contactless Smart Card technology within the UK include transit fare payment cards, government and corporate identification cards, documents such as electronic passports and visas, and contactless financial payment cards. These main areas where the UK have introduced contactless technology or are thinking of introducing this technology are discussed below:

Contactless Payments - In Edinburgh The Royal Bank of Scotland (RBS) is currently in the process of testing a contactless system, to allow people to pay for goods using their debit card. The bank has teamed up with MasterCard to test the first UK trial of the contactless debit card. Some 1,200 RBS employees have been using this method of payment since last June at the bank's Gogarburn headquarters.



The pilot is using MasterCard's PayPass technology. The scheme eliminates the need for cash and PIN numbers by using RFID technology. Users can touch their card against a pad by the till and the amount is directly debited from their account. Fiona Moriarty, of the Scottish Retail Consortium, said the debit card scheme would be welcomed by both retailers and consumers if it speeds up transactions for busy shops. RBS said the trial has been a success, but it was too early to give a timescale for the introduction of the cards.

Visa plans to trial a similar contactless systems for debit cards in London. They aim to use the technology in a variety of retail outlets in London, including fast-food restaurants and newsagents, according to a report in The Observer. Visa will use RFID-enabled dual-use debit cards for their trial, based on their Visa contactless payment technology, but it is understood that they are also in talks with mobile manufacturers to use near field communications (NFC) technology that will enable mobile phones to be used instead of a card. The Visa technology is already being used in Asia and the US and the company is looking to establish the contactless payment technology in the UK ahead of the London Olympics in 2012, according to the newspaper report. A Visa spokesman has declined to give any more details of the plans except to confirm there will be a trial of the contactless payment technology in London later this year. Both trials will be for low-value transactions under £10 and consumers will be able to pay by tapping their cards against a reader without needing to sign a receipt or enter a PIN number. A security check asking the card-holder to enter their PIN number will be done only after a certain number of transactions.

National Identity Scheme - The decision to introduce a National Identity Scheme for the UK was announced in the Queen's Speech on 17 May 2005. The Identity Cards Act received royal assent, becoming law, on 30 March 2006. The ID cards should be issued throughout the UK from 2008/9. The exact format of an ID card for the UK hasn't yet been decided but it's likely that it will be a credit card-sized Smart Card featuring the holder's photograph and basic personal information stored on a contactless ISO 14443B RFID chip. The chip will almost certainly also contain a full set of fingerprints and iris scans of the holder. The National Identity Scheme will be managed by the UK Identity and Passport Service (IPS).



What makes the scheme secure is the fact that your identity is checked and confirmed, not by means of your ID card alone but by using the identity verification service to check your ID card against your record on the National Identity Register. Information held in this database will be strictly limited, and only Parliament will be able to change the type of data that is stored there. The data will only be used to accurately determine your identity.



UK Passport - In March 2006 the UK launched the country's new biometric passport. This new passport contains a ISO 14443B contactless RFID chip. The chip stores the same information as is printed on the booklet's data page, in addition to a digital photo of the passport holder, to increase security and comply with international standards. The contactless chip has a read distance of about 10cms but the data held on the chip can only be viewed by specialised readers (e-readers) located at airport immigration points. The scans will be used to check passport applications against a database of known passport fraudsters.

The United Kingdom's Identity and Passport Service has issued more than 1 million electronic passports containing contactless Smart Card chips since March. The UK plans to add fingerprints to the chip in 2009, an Identity and Passport Service spokesman said. The UK typically issues about 7 million passports a year. Toward the end of summer, all new UK passports will bear a contactless chip, the agency says. Failure to own a contactless passport after October 2006 will have a direct consequence for UK travellers abroad. For example, because of US Visa Waiver rules, travellers to the US without a contactless passport will have to pay for visas to get into the US.

Sport Stadiums - Football clubs in the UK are believed to be at the forefront of harnessing contactless card technology to the benefit of both teams and their loyal fans. Many football clubs throughout the UK have now turned away from the old traditional paper "season" ticket towards using contactless Smart Cards for entrance to the stadiums on match days. Supporters need only present their contactless Smart Card in front of the Smart Card reader at the turnstile to the stadium for access, meaning that the turnstiles need not be manned giving further cost savings to the club. In some stadiums supporters can use their contactless Smart Card to pay for anything from programmes to team strips, or use vending machines. They can also collect loyalty points on their cards that can be exchanged for a wide variety of merchandise.

Over the next five years, it is likely that we will see similar developments in the United States, both at professional and college sporting venues. In fact these new contactless solutions being used in the UK are fast becoming a global benchmark for creating customer loyalty and bringing a form of yield management to sports stadiums. There are a number of firms within the UK that are providing these new contactless solutions for football stadiums. Stadiacard, a division of the UK-based TelCo Management Limited, is working with several leading football clubs in the UK to prove the viability of a contactless card solution using Mifare technology. Most notably, Liverpool Football Club has been at the forefront, using contactless technology in its stadium since 2003. A similar solution, also aimed for the football market, is being marketed by the St. Andrews, Scotland-based Scotcomms Technology Group. Scotcomms TeamCard contactless solution is also being employed by several leading football clubs in the UK.

Transportation - In the UK some contactless Smart Card schemes had been emerging in the transport industry commonly on a restricted geographical basis. However advances in technology are starting to make inter-operability of these schemes viable. The Integrated Transport Smartcard Organisation (ITSO) Organisation was founded in 1998 as a result of discussions between various UK Passenger Transport Authorities concerning the lack of suitable standards for interoperable Smart Card ticketing. ITSO is an organisation controlled by its members. The ITSO Specification sets out the technical means by which interoperability of contactless Smart Card systems can be facilitated. In addition to the Specification, each member agrees to abide by a set of Regulations. The Regulations ensure that all parties behave consistently and fairly, both in interactions with each other and with users of ITSO contactless Smart Cards.

Oyster Card - In 1993 Transport for London (TfL) introduced the Oyster card as a replacement for the old paper travel cards for use on London's transport network. The Oyster card is a contactless Smart Card, with a proximity range of about 10cms.



The scheme is operated by TranSys (a consortium of Cubic, EDS, Fujitsu and WS Atkins) and is based on Philips' Mifare standard 1k chips. Travellers wave the card over a distinctive yellow circular reader (a Cubic Tri-Reader) to 'touch in' and 'touch out' at the start and end of a journey. The Oyster Card was aimed at keeping London's public transport moving faster and more efficiently. According to figures from TfL, as of March 2006 over 5 million people now use the Oyster card.

In 2005 Transport for London had planned to add a contactless payment functionality to Oyster cards so that travellers could use their cards to pay for small value goods such as coffee and newspapers. However this has now been put on hold by TfL for the time being, citing difficulties in sorting out the commercial arrangements. Currently the contactless Smart Card functionality of the Oyster is being used by a handful of local UK councils, including Croydon and Lewisham, to give local residents access to council services. There are no immediate plans to roll out the Oyster card to the National railway network outside the Greater London area, though the Association of Train Operating Companies is interested in developing an ISO 14443-type card, like Oyster. As Oyster was developed quite some time ago, however, it is not currently compatible with the Integrated Transport Smartcard Organisation (ITSO) Smart Card specification

Conclusion - Even though ITSO will facilitate an increase in the use of contactless technology within the UK transport sector, the biggest future growth area for contactless technology within the UK appears to be in the payments industry. With Europe still focused on the migration to chip and PIN technology, Datamonitor, the market analysis group, has stated that the UK represents the greatest opportunity for contactless payments. Datamonitor has also estimated that the value of the market for contactless payments is around £384bn. With this in mind, it is no wonder both MasterCard and Visa have made inroads to introduce contactless payments to the UK. So I put this to you, will contactless completely change the way we acquire information and pay for goods and services as Mr Parson suspects? We will have to wait and see! But one thing is for certain, contactless technology is here to stay in the UK and its implementation in all sectors is becoming more influential by the day.

Smart Cards Hiking Revenues in Brazil

By Alejandra Etcharran, Research Analyst, Frost & Sullivan

The growing demand for Smart Cards in Brazil is mainly sustained by the global system for mobile communications (GSM) and the transport segment. The ability of Smart Cards to respond to different needs of end users highlights the flexibility of this advanced technology, while opening new business opportunities for industry participants. Our analysis has revealed that revenue in this industry totalled \$125.9 million in 2005 estimates to reach \$314.9 million in 2011. Key markets promoting this development in Brazil are the GSM and transit markets accounting for over 85% of the total Smart Card unit shipments. The subscriber identity module (SIM) cards account for over 60% of the total Smart Card market revenues.

Smart Card adoption continues gaining ground on the transport market in the main cities in Brazil, mainly through Mifare technology. Microcontrollers accounted for 70% of the total units shipped. Major banks, institutions for employee benefits and e-commerce initiatives are driving migration to Smart Card technology and EMV standards in the financial segment. The Smart Cards market in Brazil is strongly price oriented with usually lower prices than the rest of Latin America, given the country's high volumes. High costs of Smart Card technology implementation compared to other alternative automatic identification data capture technologies that are the main barrier to the massive adoption of the product across all markets.

EMV continues to develop at a slow pace, as growth rate of chip-enabled banking cards are lower than first anticipated, necessitating the increase of EMV platform awareness. The lack of standards and interoperability within the country contribute to a slow uptake of Smart Cards compared to the country's giant mass of consumers. Smart Card market participants need to identify value-added products and services for addressing a dual market with different end users. The development of multi-application Smart Cards will allow penetration at lower cost for end users.

