Smart Card News

Smart Cards, SIM, Biometrics, NFC and RFID

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This Month's Lead Story

US Deployment of e-Passport Readers Begins

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Dear Subscribers,

Before you know it Cartes is round once again, November 7th to 9th in Paris for those of you who have not yet got it in their diary.

I wonder what's going to be new for this year. Over the last 12 months we have seen an increasing interest in gift/cash cards and contactless low value payments, not exactly new as such but looking more and more like the modern approach to an electronic purse. What used to puzzle me was how the banks could handle the processing overheads for a 20p transaction for a newspaper or parking, but I have been enlightened, as was pointed out to me how often do you make a purchase less than £1? I must confess parking in Brighton is rarely less than £2 unless you want to be towed away and then they won't take cards, cash only!

This month we have more on the UK's National ID Card project. The Independent on Sunday has informed us that the Home Office is going to add to the £35 million spent on PA Consulting so far, now three new advisory firms are to be appointed. It is rumoured that the likely candidates are Accenture, Capgemini, Fujitsu Services, IBM, and LogicaCMG. Presumably PA is going to take a backwards role.

What the approach might be is a point of conjecture but rumours in the bar suggest that the ID card itself will be killed while the Registration data base will continue, linked to ePassports, immigration and other controlled areas. There doesn't seem to be much stomach in Government to carry the original ideas forward and David Cameron the new leader of the Conservative party has openly said this week at their annual conference that when (if) he gets in power then he will kill the project. All sounds a bit gloomy really.

Anyway on to brighter things, I'm looking forward to meeting new and old friends in Paris next month and catching up on all the gossip, see you there!

Patsy

US Deployment of e-Passport Readers Begins

The US Department of Homeland Security (DHS) has recently completed deployment of e-Passport readers at San Francisco International Airport. San Francisco Airport was originally the site where they first piloted these new readers. These e-passport new readers will soon be deployed at major international airports in the New York area, Los Angeles, Chicago, Miami, Detroit and at Dulles airport near Washington, D.C. Then this deployment will continue across the US in October until all 33 of the US's major airports have installed these new readers.

This deployment is aimed at meeting the October 26, 2006, congressional deadline requiring US ports of entry to compare and authenticate data in e-Passports issued by Visa Waiver Program (VWP) countries. In a statement about whether the deadline will be achieved a representative at the US Department of Homeland Security stated that they are aggressively working to meet that schedule. This deployment of e-passport readers is the next step in a process to further enhance the security of international travel documents while continuing to facilitate the flow of legitimate travel and trade to the United States. An e-passport securely identifies the individual, defends against identity theft, protects privacy and makes it difficult for individuals to cross borders using fraudulent documents.

The e-Passport carries the international e-Passport symbol on the cover and contains a contactless Smart Card chip with the passport holder's biographic information and a biometric identifier, such as a digital photograph of the holder. All e-Passports issued by VWP countries and the United States have a critical security feature which prevents the unauthorised reading or "skimming" of data stored on the chip.
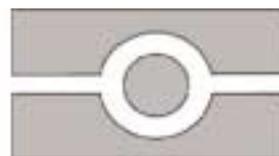
The US Border Security Act of 2002 requires that passports issued by VWP countries on or after October 26, 2006, must be e-Passports to be valid for entry into the United States without a visa. These e-Passports must comply with technical standards established by International Civil Aviation Organization (ICAO). The Act also requires that US ports of entry have the capability to compare and authenticate data from e-Passports.

When applying to enter the United States, travellers who have a valid machine-readable passport with a digital photograph do not need to obtain a new e-Passport until the existing passport expires, if the digital photograph passport was issued before October 26, 2006. The inspection process at a US port of entry does not change for an e- Passport holder. US Customs and Border Protection officers will have the ability to read the e-Passports' chip at inspection booths displaying the international e-Passport symbol. During the past two years, the US government has been involved in efforts, largely through the ICAO, to work with VWP countries to test and perfect technical standards making e-Passports interoperable with readers at US ports of entry.

The 27 countries participating in the VWP include: Andorra, Australia, Austria, Belgium, Brunei, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Japan, Liechtenstein, Luxembourg, Monaco, the Netherlands, New Zealand, Norway, Portugal, San Marino, Singapore, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. Approximately 13 million people each year travel to the United States under the VWP to study, conduct business, visit family or tour the country.

Visitors who wish to verify whether or not their passport meets the requirements and deadlines for VWP travellers, can find details at:

www.dhs.gov/interweb/assetlibrary/vwp_travelerguide.pdf

Smart Cards

Denmark Rolls New e-Passport

Gemalto has announced that the Danish National Police has started issuing electronic passports that integrate its most advanced Setec secure technology. For this nationwide deployment Gemalto manages the entire delivery process. In addition to its secure electronic passport software and high security polycarbonate data page technologies, Gemalto will provide passport booklet assembly and individual personalisation of each passport. The agreement runs through to 2009, with an option for two additional years. The Danish authorities plan to incorporate the electronic capability in all new passports from now on and are expected to issue some 250,000 by the end of 2006. Between 700,000 and 800,000 traditional passports are issued annually.

New Singapore Smart Card System

Singapore's Land Transport Authority (LTA) has tapped IBM's elite High Performance On Demand Solutions (HiPODS) Labs to build a highly customised, Smart Card e-payment infrastructure for Singapore's mass transit network of buses and trains. Dubbed Symphony for e-payment (e-Symphony), the infrastructure will replace the current Enhanced Integrated Farecard System (EIFS). IBM will help Singapore connect its fare payment systems for its Mass Rapid Transit (MRT) and the Light Rail Transit (LRT) systems, linking them to a central computer of the transport operators SBS Transit Ltd and SMRT Corporation Ltd; card service operator TransitLink; and card manager EZ-Link Pte Ltd.

2.5m National ID Cards for Oman

Gemalto has announced that the Sultanate of Oman has selected its technology to implement the second phase of the country's national ID program. The contract appoints Gemalto to provide an update of the current National Registration System, integration services, as well as to supply smart ID cards that will enable the Sultanate of Oman to provide faster and more secure public services to its population. The program, scheduled to begin at the end of 2006, involves over 2.5 million national ID cards. The Sultanate of Oman's national ID card program is the first Smart Card-based e-government solution ever deployed in the Middle East. It is part of the Sultanate's policy to improve the quality of public service and homeland security infrastructure.

Its core objective is to modernise the Sultanate's identification system and processes, making it more efficient and secure, both for government authorities and citizens.

### US ID Program to Cost $11 Billion

In a report released by the National Governors Association, the National Conference of State Legislatures and the American Association of Motor Vehicle Administrators, state motor vehicle officials estimated it would cost more than $11 billion over five years to implement the technology required by the Real ID Act. Under the law, US states must start to re-enroll about 250 million holders of US driver's licenses after May 2008. The states must train workers to verify copies of original birth certificates, Social Security cards, marriage certificates and various identification documents.

L-1 Receives $25 Million Contract

L-1 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 US Department of Defense (DoD). The CAC program is widely regarded as the largest and most advanced use of Smart Cards and has been recognised with major industry awards. The CAC program Smart Card is used to authenticate the identity and affiliation of DoD active duty military personnel, the Selected Reserve, DoD civilian employees, and selected contractors, granting them varying privileges such as physical access to secure areas and logical access to the DoD's computer networks.

New Dual-Interface MCUs

STMicroelectronics has announced a new dual-interface secure microcontroller, with 66-Kbytes of embedded EEPROM, which is designed to give improved performance in e-Passport, ID Card and related applications. The dual interface allows operation in both contact and contactless applications and the new ST19NR66 builds on the success of ST's earlier ST19WR66, which was released two years ago, with higher clock speed, lower power consumption, and a smaller die size, to meet the latest packaging requirements. The ST19NR66 is manufactured using an advanced and highly reliable 0.15-micron technology, and is fully compliant with International Civil Aviation Organization (ICAO) requirements for the storage of biometric records and personal information.

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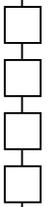
Further Costs for UK ID Card

The UK Home Office has appointed three new advisory firms as consultants for the controversial UK identify card scheme. A spokeswomen for the Home Office said that the new firms were needed to carry out "specific technical work". It is not known how much the new contracts are worth but these new appointments are sure to raise the Home Offices financial outlay above the £35 million figure already paid out on consultants. The Home Office has already begun vetting potential candidates for the new consultancy work. They are thought to include Accenture, Capgemini, Fujitsu Services, IBM and Logica CMG.

Smart ID Cards for South Korea

In a statement made by the South Korean Ministry of Government Administration and Home Affairs, it has been announced that the ministry has requested a consortium of the Korea Minting and Security Printing Corporation (KOMSC) participated in by Samsung SDS to design new identification Smart Cards. The cards will include personal information such as resident registration number, fingerprints, home address, and security passwords which will be contained in the integrated circuit (IC) chip.

NXP Chip for Singapore e-Passport

NXP Semiconductors, the newly independent semiconductor company founded by Philips, has announced that Singapore's biometric passports, fully implemented in August 2006, utilises its contactless Smart Card chip technology. The new passports have been issued to comply with the recommendations and requirements laid down by the International Civil Aviation Organization (ICAO). The chips for this implementation will be manufactured by Systems on Silicon Manufacturing Corporation (SSMC), a Singapore-based producer of advanced semiconductor wafers.

Smart Cards for Australia Transport

According to Auckland Regional Council documents, Smart Cards and real-time technology will be rolled out to integrate Auckland's public transport ticketing and scheduling. By the end of the project, locals will be able to use one ticket to travel to and from any point in the city using multiple modes of transport. The Council has appointed its subsidiary Auckland Regional Transport Authority (ARTA) to plan the project.

Other Integrated ticketing projects in Australia have been a technical and legal minefield. Sydney commuters were promised a Smart Card based ticketing project for the Sydney Olympics in 2000. After a series of technical problems and a legal dispute between prospective suppliers it still hasn't arrived. Brisbane was promised integrated ticketing by 1993. It was delivered over a decade later in 2004.

MyID PIV CMS Receives FIPS 201

Intercede has announced that MyID PIV is the first Card Management System (CMS) to be certified for Electronic Personalization and listed on the GSA FIPS 201 approved products list.

Smart Card Support for BlackBerry's

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.

Oberthur Opens New Plant in Spain

Oberthur Card Systems has opened its new personalisation site in Madrid. the new centre is one of the country's most advanced personalisation centers and has already received the required certifications from the domestic and international banking schemes (Sermepa, Ceca, 4B, MasterCard and VISA). Oberthur Card Systems plans to personalise over 14 million cards in Spain and expects to significantly expand further its personalisation activity in the coming years with the migration to EMV of the Spanish market.

Common e-Payment Infrastructure

East Japan Railway Company (JR East), NTT DoCoMo, Inc., JCB Co., Ltd. and bitWallet Inc., have agreed to share a common platform to enable their e-payment brands- Suica, iD, QUICPay and Edy-to share the same point-of-sale reader/writer device and data center. The system is expected to begin commercial operation with the Suica and iD brands in January 2007, with QUICPay and Edy to be added subsequently. The platform is being jointly developed by JR East and DoCoMo based on an agreement between the two companies in July 2005 to create and manage common infrastructure for JR East's Suica e-money and DoCoMo's Osaifu-Keitai credit card service, both of which are based on FeliCa Smart Card technology.

1 Million Smart IDs for US DoD

Adding to the more than two million smart IDs it already provides the US Department of Defense, Oberthur Card Systems will provide the them with a further 1 million 64K dual interface Smart Cards. This is the US federal government's first large volume order for a smart ID card that has the flexibility of requiring contact or being contactless. This technology offers the highest level of credentialing security.

ID Cards for Florida Port Workers

Oberthur Card Systems has announced that it has signed a 3 year contract with the State of Florida to produce Uniform Port Access Credential Cards for deep-water port workers. The credential cards are part of a State of Florida's port security initiative that limits access to secure areas in the twelve deep-water ports in Florida. In addition, the cards will follow the requirements of the Homeland Security Presidential Directive (HSPD-12) as applicable.

Vietnam to Use Smart Cards on Buses

Ho Chi Minh City, Vietnam, plans to introduce Smart Cards to replace tickets on local buses. The Department of Transportation and Public Works said during the initial trial phase, the cards would be used by customers exempt from buying tickets – like people with physical disabilities. The capital Hanoi is testing out the card on two bus routes. The timings and routes of the buses for trial in Ho Chi Minh City will be announced soon.

New High-Capacity SIM Cards

msystems has announced the availability of high-capacity mSIM MegaSIM cards through its Microelectronica subsidiary. In addition to the currently available 128-megabyte, 256-megabyte and 512-megabyte msystems MegaSIM SIM cards, 1-gigabyte MegaSIM products, planned for commercial availability by the end of the year, will be mass produced at the Company's Microelectronica facility in Spain.

Keycorp Certified by MasterCard

Keycorp Limited has received worldwide Master-Card certification under the MasterCard PayPass M/Chip approval scheme for its MULTOS technology. Keycorp's contactless MULTOS technology is already being used in a multifunction card for banking and transit in Taiwan, which is the world's first MasterCard OneSmart PayPass Chip Combi Card, known as the TaiwanMoney Card.

New Powder Passport Card

Smart Destinations has re-launched their Northeast skiing and snowboard product, the Go Ski Card, under the new name Powder Passport. The new Powder Passport now offers tickets and full-day pre-paid ski lift passes to 18 mountains in Vermont, New Hampshire, Massachusetts, Maine and New York for one low price. Last year's product, the wildly successful Go Ski Card offered 14 mountains exclusively in the New England ski area. This year's newly improved Powder Passport has expanded to include resorts in New York.

Wisconsin Uni Chooses eToken

Aladdin Knowledge Systems has announced that the University of Wisconsin-Madison (UW-Madison) has selected the Aladdin eToken USB Smart Card to secure campus-wide emails and files using two-factor authentication. After an exhaustive evaluation process, the University's IT team recently began providing eToken to its numerous schools and administrative departments. Aladdin eToken provides University of Wisconsin-Madison users with a secure yet mobile method of storing and using their digital credentials.

Smart Cards for OC Transpo

Transit users in Ottawa, Canada will soon be swiping a Smart Card to board the OC Transpo. Ottawa City Council has recently approved a US$15 million credit-card type system for OC Transpo Buses and the O-Train. Transit users will be able to use the cards to purchase monthly and weekly bus passes and tickets. OC Transpo suggests the Smart Card system could help eliminate counterfeit bus tickets in the system.

BenQ to Introduce NFC Handsets

BenQ plans to introduce its first NFC (Near Field Communication)-compliant mobile handset in the first half of 2007, as the company moves to catch up with industry leaders in NFC deployment. BenQ said its first NFC handset sample will be available in the first quarter of 2007 with volume production to follow by the middle of the year. The company will be testing the functionality of external microSD card and USIM (universal subscriber identity module) applications in Taiwan with Chunghwa Telecom (CHT) and Taipei Smart Card Corporation (TSCC). Currently Nokia and Samsung Electronics have taken the lead in NFC handset deployment.

Nokia has already rolled out the world's first NFC handset (3220) and debuted the first commercial service in Hanau Germany with Vodafone. Test programs in Atlanta, Malaysia, and Xiamen and Shanghai in China are also ongoing.

CCFC Launches Smart Card Tickets

Coventry City Football Club in the UK has implemented Smart Card technology as part of a complete overhaul of its customer relationship management (CRM) and ticketing systems. As one of the first clubs outside the Premiership to offer radio frequency identification (RFID) enabled Smart Cards to season ticket holders, Coventry will this month extend the scheme to casual fans to speed entry, improve security and reduce paper tickets.

Precise Receives New Order from US

Precise Biometrics AB has received a follow-up order from the US Department of State, worth SEK 2.3million (£167,000) in total. The order is for more than 2,000 units, which combine fingerprint and Smart Card reader devices. The procurement is the result of the expansion of the Department of States program aimed at increasing computer network security through the implementation of Smart Cards and biometrics.

ActivIdentity Supports New Standard

ActivIdentity Corporation has announced its plan to support the emerging ISO/IEC 24727 Smart Card interoperability framework standard, as it is finalised and approved by the International Organization for Standardization (ISO), by extending its Smart Card software to support the standard.

Europay, MasterCard & Visa

Irish Card Fraud Down

Incidents of card fraud in Ireland have decreased as a result of the introduction of Smart Card technology, according to officials. The Irish Payment Services Organisation has recorded a 65% reduction in card skimming in the first half of this year.

The new method, also known as Chip and Pin, was introduced to replace the older signature based technology to combat fraud in the country. IPSO spokesperson Una Dillon said the new statistics proved that Chip and Pin is much more secure than the previous system.

First Universal PIN Pad for EMV,

Hypercom Corporation has announced that it has submitted its recently announced universal RF-enabled touchscreen-based P4100 PIN entry device for EMV, PCI PED, PTS and contactless certifications. Receipt of the approvals will pave the way for the high security, multi-application device to accept EMV Smart Card payments in global markets, provide guaranteed PIN entry security, ensure payment security over wireless and IP networks and be used with the rapidly expanding contactless payment programs offered by American Express, MasterCard and Visa.

Success for New EMV Chip

The Baden-Württembergische Bank in Stuttgart, Germany will use Trüb AG Switzerland's CombOS operating system to issue new credit cards. The newly developed system is already being successfully employed in Switzerland. CombOS is the first system to process Visa and MasterCard credit cards on a single platform. Trüb AG has now also been able to market the system to Germany, one of the company's major export countries. Baden-Württembergische Bank (BW-Bank) forms part of the Landesbank Baden-Württemberg, is headquartered in Stuttgart and has some 200 branch offices with over a million private clients and more than 25,000 corporate clients. The cards are manufactured at Trüb AG in Switzerland; the Germany-based Winter AG, a subsidiary of the Trüb Group, is responsible for personalisation and distribution of the cards.

Visanet Brazil Adopts Welcome's XLS

Welcome has announced that Visanet Brazil has chosen Welcome's XLS payment software to make Visa EMV cards in Brazil more fun, exciting and attractive, to both cardholders and merchants, than any other card brand.. The open loop deployment of XLS for Visanet is designed to make Visa credit and debit cards much more attractive to merchants at the moment of payment, so merchants will encourage their customers to use Visa. Merchants are able to target their promotions to Visa cardholders immediately at the moment of payment, in ways that would be very difficult and expensive using traditional methods.

EMV Service for Borneo Bank

Baiduri Bank of Borneo has introduced the "EMV Acquiring Service" in Brunei Darussalam.

The new service was officially launched during a ceremony held at The Rizqun International Hotel, which was attended by the guest of honour, Minister of Communications Pehin Dato Hj Awang Abu Bakar and some 200 people from the government and private sector including card merchants.

Radio Frequency Indentification

Schwarzenegger Quashes RFID Bill

The long-awaited California bill to regulate the use of RFID in state and local documents has been quashed. Authored by California State Senator Joe Simitian, a Democrat from Palo Alto, the bill was thought by many to be the bellwether for RFID legislation in the US. The hope for groups like the American Civil Liberties Union was that once the bill passed into law, other states would take California's lead by enacting laws to limit the use of RFID technology to protect citizen's privacy and security rights.

Governor Arnold Schwarzenegger said in a statement that the bill is premature. "I am concerned that the bill's provisions are overbroad and may unduly burden the numerous beneficial new applications of contactless technology". He pointed to the fact that the federal government, under the REAL ID Act, has not yet released new technology standards for government ID cards (RFID is a strong contender) and any legislation from California could impose requirements that would contradict the federal mandates soon to be issued.

Motorola Buys RFID Firm

Motorola plans to acquire RFID vendor Symbol Technologies in a deal valued at $3.9 billion (£2.1 billion). Motorola said it would pay $15 per share, a slight premium over Symbol's Monday closing price of $14.67 on the New York Stock Exchange. "Everything is going digital, and everything digital is going mobile. This is especially evident in the way businesses are run today," Motorola Chairman and CEO Ed Zander said in a statement.

IER Signs Deal for Jewel Chip

IER has signed a licence deal to use Innovision Research & Technology's Jewel chip. The Jewel technology will be integrated within IER's new generation of RFID labels aimed specifically at mass transit smart ticketing applications.

European RFID to Reach $109m

Frost & Sullivan has found that the European RFID Markets for Automotive, Aerospace and Industrial Manufacturing generated revenues of $23.7 million in 2005 and estimates this will reach $109.3 million in 2012. "The unique features of RFID technology enable the development of a constant stream of innovative applications for manufacturing sectors", says Frost & Sullivan Research Analyst Rengarajan Srinivasan. "The rising need to accurately track valuable assets and products is creating significant scope for the use of RFID across a range of industrial sectors."

China Adopts RFID

The Shenyang Municipal Transportation Bureau in china has announced it will adopt RFID technology to help stop illegal taxis and to improve the overall management of taxi operations. SMTB says in order to fulfill its goal, it will soon install an electronic RFID tag that has an anti-counterfeiting function on all legally registered taxis. It will also adopt car-loaded radar identifying technology to facilitate the identification of illegal cars. In addition, the driving licenses of taxi drivers will be digitalised to improve the management over taxi drivers and ensure that the taxi industry will grow in a healthy and safe manner.

South Korean RFID Trials

The South Korean Government has undertaken a series of radio frequency identification (RFID) projects in the public sector, to assess its relevance and applicability. Through the active political commitment to the pilot projects in the public sector, RFID is spreading into the South Korean private sector. A report from the National Computerisation Agency, Advanced RFID/USN Project Team Director, Boomann Choung, found the domestic technological base has greatly improved through a series of RFID Pilot Projects, trialed in the public sector.

Zebra Acquires RFID Patents

Zebra Technologies Corporation has announced it has acquired an extensive portfolio of radio frequency identification (RFID) patents, which the company believes are important for the implementation of cost-effective high-performance RFID technology. The portfolio was acquired from BTG plc. for a total cash consideration of approximately $10 million.
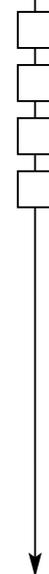
Financial Results

Gemplus Unable to Achieve Targets

Gemplus, 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. Gemplus expect to report its third quarter results on Oct 26. Shares in Gemalto tumbled over 13% after the firm reported a 47% drop in adjusted first-half profit amid intense competition and warned that profitability is unlikely to improve this year. Gemalto said adjusted net profit, assuming the merger had taken place at the start of the year, fell to $34.4 million from $65.3 million last year. Their revenue also dipped 1.1% to $1.04 billion.

Ingenico Release 1st Half 06 Figures

Ingenico have announced their first half results for 2006. They have reported their revenue as £255.2 million, which is a 23% increase in revenue. Profit before income taxes was 10.2 million euros, in sharp contrast to the 23.9-million euros loss booked in 2005. Income taxes for the period amounted to 20% of earnings, due to loss carry-forwards. This resulted in a net profit of 8.3 million euros, equal to 0.3 cents per share.

On the Move

Inside Expands Sales Team

Inside Contactless has announced that it has expanded its sales organisation by appointing Bertrand Moussel as Executive Vice President Sales for Latin America and EMEA, and Goh Say Yeow as Executive Vice President Sales for Asia Pacific.

New Director for Ingenico France

Ingenico has announced that Jérôme Janin's has been appointed to the position of director of France. Jérôme Janin joined Ingenico Group in 2003 as vice-president marketing and market development of the products and technologies division before being appointed as vice-president for marketing and engineering, and then as director of Ingenico France.

New Development Manager at ACG

ACG Identification Technologies, a component and technology supplier in the Smart Card and RFID markets, has announced the appointment of Michael Bauer as Business Development Manager Financial Transactions. In his new position, Michael Bauer will assist in creating ACG's overall strategy for the financial transactions market segment.

New Acting CEO at Saflink

Saflink Corporation has announced several changes in its executive leadership. Steve Oyer, a member of Saflink's board of directors and chairman of its audit committee, was named interim chief executive officer, while Glenn Argenbright, Saflink's current president and CEO, was named chairman of the board and president and general manager of Registered Traveller Solutions. Saflink also announced that Jon Engman, its chief financial officer, is resigning for personal reasons and to pursue other interests.

Zebra Co-Founder to Retire as CEO

Zebra Technologies Corporation has announced that Edward L. Kaplan, co-founder of the company, its Chairman and CEO has asked Zebra's Board of Directors to identify and name a successor. Once the successor has taken charge, Mr. Kaplan intends to retire in order to pursue personal interests and spend more time with his family.

PNS Founder Joins APS

Tim Dean, principle and founder of Payment Network Solutions Ltd (PNS), a prepaid debit card solutions consultancy, has joined specialist prepaid card company Advanced Payment Solutions (APS) as Head of Market Development. Advanced payment Solutions Chief Executive Rich Wagner says Tim's appointment adds significant fire power to its Business Development team, which is focusing on getting the lion's share of the market.

New President at Pay By Touch

Pay By Touch has announced that John Costello, former Executive Vice President of Merchandising and Marketing for The Home Depot, has joined the company as President, Consumer and Retail. Costello will report directly to John Rogers, Founder, Chairman and CEO, and will take a seat on Pay By Touch's Board of Directors.

Infineon's Black Thursday

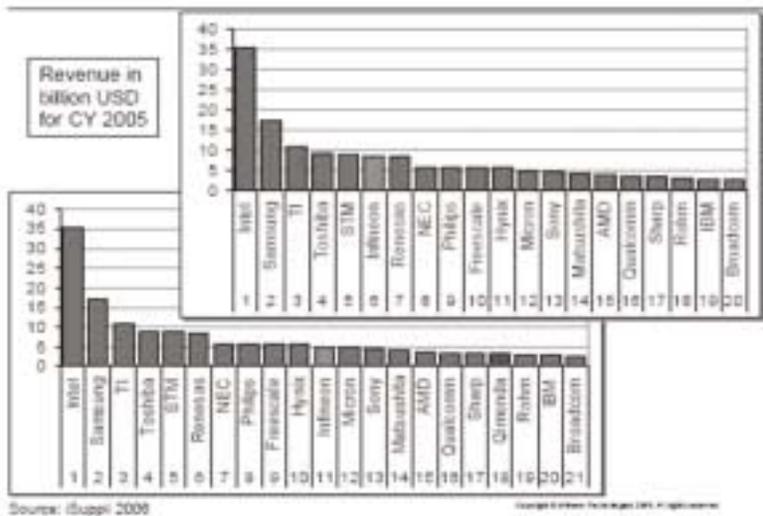**By Dr David Everett, Principal Consultant, Microexpert Ltd**

Dr Wolfgang Ziebart

It's really any CEO's nightmare, an International trade press briefing and on the same day one of your major customers files for insolvency. Thursday September 28th 2006 was the day, Dr Wolfgang Ziebart, President and CEO of Infineon Technologies who took over in 2004 was in the chair while Taiwan's BenQ Corp announced it was to discontinue injecting capital into the German mobile phone subsidiary which it took over from Siemens less than a year ago. Ignoring the furore this has caused in Germany with 3000 jobs at risk it will have a major impact on Infineon for which it represented 15% of the Communications division's sales and some 5% of the company's overall revenue.

The division which has annual revenues of about $1.6 billion is currently losing about 30 - 40 million euros per quarter, prior to the announcement the unit was expected to break even in the 4th quarter. Clearly the turnaround is going to take longer but Infineon has other big players in the bag, Nokia is its biggest customer while LG is also a user of the company's chips. In 1998 Infineon packaged its DRAM business as a separate business which eventually went for its IPO as Qimonda in August this year at $13 per share well below the $16-$18 anticipated. The IPO raised $546 million, about half the $1.1 billion they were seeking.

This leaves Infineon with an 86% holding in the company which is number 2 in DRAMS and with shares currently trading at $16.3. Now in anybody's book this was probably a smart move, the holding is maybe a little high but the market conditions were difficult seeing other IPOs blown out. Infineon has an integrated corporate risk management process and packaging off your DRAM business makes a lot of sense if you want to develop a stable business. The Qimonda deal repositions the company from number 6 to number 11 as shown in the figures on the right.

Ranking prior and after the carve-out of Qimonda

Revenue in billion USD for CY 2005

Source: iSuppli 2006

Ranking in global target markets

Automotive | Power | Chipcard | Communication

Wireless | Wireline

| Market Share* 9.3% | Market Share* 9.3% | Market Share* 35% | Market Share* 6.7% | Market Share* 19% |

* Infineon share of total market

Chip card and security is part of the Automotive, Industrial & Multimarket division with annual revenues of about $3.4 billion of which the chip card unit accounts for $450 million. Infineon is number 1 in the Smart Card chip world but the unit has losses measured in double figures. According to Frost and Sullivan the company had a 35% share of the total chip card market of $2.4 billion in 2005, meaning the chip card unit should have sales of about $840 million.

The overall chip market has a forecast growth of 45.8% over the period 2005 - 2008. It is also Dr Ziebart's aim to break even on this unit in the 4th quarter. The company has been applying cost cutting, plant closures and general efficiency improvements. The major problem of course is the margins on chip cards which seem to be eroding year by year. Whatever you might have thought it is now clearly a commodity product with the bulk of the market distributed between the financial sector and the mobile SIM area.

Growth rates in our global target markets

One suspects that government use of chip cards in the ePassport and eID area is likely to be equally aggressive on pricing so volume and efficiency are the name of the game and this is clearly where Dr Ziebart is thinking. Reading between the lines R & D is one of the major overheads and here perhaps we can offer some thoughts. In the mobile area high memory SIMs are getting quite a following among the network operators who at long last seem to have realised that the SIM is the only part of the phone they can really lever against - a much under developed area. A few practical problems to worry about, will the SIM have an MMC interface or USB? Nobody can seem to make up their mind but what we do know is that existing phones have an MMC interface and although probably technically better the USB is further away.

In my old age I have concluded the better business case rarely follows the technically elegant solution and then what does this mean to the future of Secure MMC? And then we have TPM (Trusted Platform Modules) for which we will find one in every computer or so they say. Infineon is probably still the lead player in this market. The idea in simple terms is to have a trusted cryptographic token (TPM) in every PC that the operating system and applications can trust to enforce the necessary security policy. This would potentially turn the very untrusted PC into something very much better both for the software and protection of content such as Digital Rights Management (DRM).

There was of course a lot of flack about Microsoft using this to protect its software and dominate the rest of the industry. Microsoft had planned to use TPMs as part of its Vista operating system, this has been dropped for the moment and rumours from inside suggest it might never come back. One has to say that if this market ever took off then you might argue that the TPM would get built inside the CPU, I'm sure Intel and AMD are capable of this sort of development if the business case is there.

On a more positive note Infineon is number 1 in the Smart Card chip market and over the last 10 years has produced some fine chips. They were one of the early players to incorporate public key co-processors and worked hard to develop a secure platform capable of certification under Common Criteria.

The trouble is that in the financial market and probably the future mobile SIM market security is what Smart Cards are all about, I hope Dr Ziebart doesn't make too many cuts here. Does the future look rosy? In the short term no, there are still some major problems to be solved but one can't help but feel an air of confidence that the management knows what it is doing and as the saying goes 'if you understand the problem you can probably solve it'.

www.infineon.com
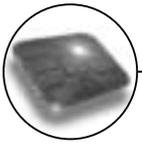
Smart Cards Enabling User-Oriented Public Transport

By Hannah Bryan, Researcher, Transport Operations Research Group and Phil Blythe, Director, Transport Operations Research Group

Road transport operations are currently facing major challenges, in particular: tackling congestion, and combating climate change by reducing emissions. The role of public transport is there to be exploited, particularly through enhancing services to encourage a modal shift away from the private car. The use of Smar Card technology in public transport has an already recognised potential, seen for example in London, to contribute to improved services through the provision of seamless, convenient, user-friendly, interoperable ticketing, with the prospect of boosting the overall convenience for the card holder by add-on applications. As in London, this paper assumes increasing use of public and private partnerships, albeit in numerous different ways.

One of the difficulties with the deployment of Smart Card systems in public transport is the lack of evidence for a robust business case for the required investment. Such a business case must demonstrate both financial and social outputs: increased revenues to operators from increased patronage, improved services for the traveller, and progress against the major challenges. One input to the business case, which is not being widely utilised, is the vast amount of data already generated in existing schemes by a combination of Smart Card ticketing and improved service monitoring. Each use of the card collects a snapshot of the passenger's boarding and possibly also alighting behaviour. This, in turn, offers the possibility for an increasingly coherent understanding of user demand. Also improved service level data from enhanced on-vehicle and fixed equipment adds more precise knowledge of vehicle operation. That, in its turn, allows analysis of the fit for service provision to user demand.

A study was carried out to consider this area of the business case with the aim of proving the concept that, with additional knowledge of traveller behaviour on public transport, captured from Smart Card data analysis, it is possible to create a more user-oriented service. To test this concept, Nottinghamshire County Council (NCC) provided a set of real, anonymous, Smart Card data, derived over a two month period from its concessionary Smart Card scheme, the *freedom* card, used on a network of bus routes connecting at key interchange points. *Freedom* card enables NCC to provide support for concessionary travellers who fall into one of three user-group categories: the elderly; the disabled; and school students.

NCC has a clear chain of ownership and was happy to provide the data on the condition that it was anonymised and limited to data sets collected by its small operators, to whom it offers a Smart Card management service (as opposed to the larger operators who keep this management in-house). During data analysis, each of the three user-groups were studied individually to determine their group-specific behaviours at boarding point, route and network levels, to build up a number of journey profiles and flows through the network. Such an exercise could be used to help the service provider understand the group trends and ensure all passenger needs are met when planning services.

To demonstrate how the findings could be useful, a tool was developed using GIS (Geographical Information Systems) [www.esri.com] to graphically illustrate the Smart Card use at boarding and alighting points and the use as passengers interchange between services. For example, by studying the boarding profile of disabled passengers on two routes around Newark, the frequency each bus stop was used during the period could be represented using different sized symbols. This enables a visual, group-specific boarding comparison between bus stops on one route or between routes in the network, which can be expanded to include all user-groups, from which any discernable trends can be identified. The amount of journeys made involving more than one route was fairly insignificant and it was difficult in some cases to determine if an interchange had taken place because of potentially inaccurate alighting point assignment due, in part, to the inability of the ticketing machines to identify stops uniquely. However, the data was studied to demonstrate a profile of the inter-service use and the passengers' flow through the network.
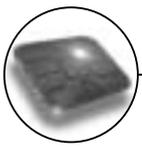
There were a number of limitations of the data set, one of which was the inaccuracy of the alighting point assignment. Other key limitations were unexplained gaps (for example large time periods in which a card has not been used) and the anonymity of the data set. With more personal information about the end user, such as their postcode, it would help to put the findings into context and potentially explain some of the gaps in the data set. One of the major reasons for this problem is privacy concerns. The Data Protection Act (DPA) limit data use to the purpose by which it was collected, thus NCC felt it inappropriate to provide personal information for this study, particularly given the vulnerable nature, in terms of age or disability, of the card holders.

The personal data concerns are primarily associated with storage and third party access; to investigate this further a questionnaire was completed by several significant members of the Smart Card industry. The over-arching conclusion for overcoming this issue was to incentivise by creating an environment in which the benefits to the end user, monetary or otherwise, outweigh the disbenefits associated with providing personal information. To develop this, the DPA requires that each card holder signs a statement of purpose which provides the opportunity to opt out. Privacy will continue to be topical issue so there is clearly a need for a rigorous investigation by industry if the benefits from having personal information are to be fully embraced.

At present Smart Card data has its place most significantly as a management tool at route level. The user demand, when and where the service is wanted, can be observed and, with accurate alighting point information, the destination demands could be identified, creating more insight for network management and route planning. The business case for smartcards has the potential to grow, providing that it can contribute to increased ridership. If additional information is gained about passengers and used to feed the scheme managers with the tools needed, services can be improved, thus potentially ridership, through customer satisfaction.

With carefully thought-out incentives encouraging the end-user to allow extended use of their personal information, then more detailed journey profiles, that demonstrate the passenger trends to a higher degree of accuracy, may be attainable. The in-depth passenger knowledge base could be used to optimise the boarding points, routes, network and timetable design, and facilitate a service that is responsive and relevant to user needs. This, in turn, could encourage the modal shift that is needed if transport operations are to become sustainable, and enable public transport to meet its future challenges.

To support this area of business case development, suggested specific initiatives from the public sector are: *1)* Existing schemes should be encouraged to make their data available to planners of other schemes, in order to demonstrate the information already available for service management (the spreading of Best Practice). *2)* Investment into thorough research and new technologies (particularly those enabling accurate assignment of alighting points, possibly using vicinity based Smart Cards, other tag technologies, or Near Field Communication (NFC) at exits - the concepts included in Be-In Be-Out methodology) could result in fewer data set limitations.

Events Diary

November 2006

07-09	CARTES 2006 - *Paris, France - www.cartes.com*
07-09	RFID/USN KOREA International Exhibition & Conference - *COEX Atlantic Hall, Korea - www.kfairs.com/exhibit.php?sub=sub_12*
15-16	Smart Label Summit Europe 2006 - *Amsterdam, The Netherlands - http://smarteurope.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*

December 2006

06-08	Advanced Identification Systems 2006 - *Arlington, Va - www.intertechusa.com*
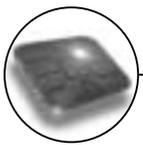
SIMpass-Make M-Business Easy

By Watchdata System Co., Ltd

Mobile payment (M-Payment) is a new type of payment technology that utilises mobile devices and wireless technology as primary means. Presently, M-Payment can be differentiated by remote payment and local payment, where remote payment using SMS, MMS, or GPRS with low security mechanism and limited application fields, has been taking most of the M-Payment market share. Local payment using contactless Smart Card technology on the other hand, provides highly secured payment environment, enabling smooth and more flexible mobile payment applications.

SIMpass introduction: SIMpass is a set of solutions for M-payment, with the dual-interface SIM card acting as the core. SIMpass card can be put into a mobile phone as any SIM card, but it has much more powerful functions. The mobile subscriber needn't to change his/her handset but just put the SIMpass card with a special antenna into the handset. The mobile phone with SIMpass card can provide a complete M-payment solution which solves the problems of real-time transaction, real-time payment and security. The PK technology is also involved in the SIMpass card so that the SIMpass can do the transaction with high security requirement. The SIMpass user can use his/her mobile phone with SIMpass SIM to do the local payment transactions via contactless interface with RF technology. He/She can also do the remote payment transactions via SMS/STK/GPR. The support to both local payment transactions and remote payment transactions make the SIMpass can provide much more flexible and powerful transactions than the current M-payment solutions.

SIMpass technology: SIMpass card is a dual-interface multi-application card which includes telecom functions such as GSM or CDMA and payment functions such as ED/EP or VSDC. The telecom functions use the contact interface which is compliance with ISO7816. The payment functions use both contact interface and contactless interface which is compliance with ISO14443 Type A or Type B. An additional antenna is needed to implement the contactless communication. It's placed together with the battery in the mobile phone and connected to the SIMpass card. A magnetic shield is put between the antenna and the battery to avoid the disturbance of the battery to the antenna.

There are two working mode for the SIMpass card. One is the contactless mode, the other is the mixed mode. When the mobile phone is power off, the SIMpass card is in the contactless mode. It can do the contactless transactions as any contactless payment card. The power and external communication clock are both provided by the RF reader.

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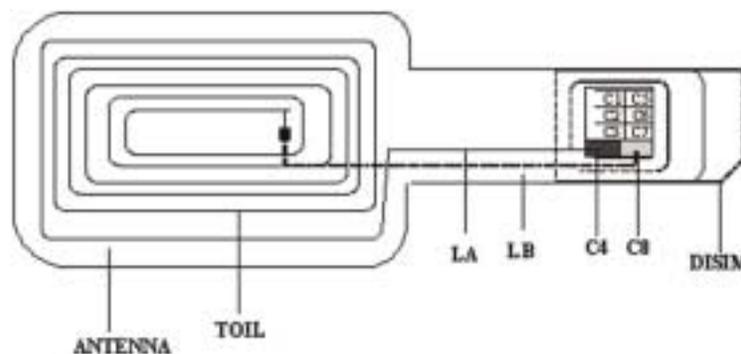
When the mobile phone is power on, the SIMpass card is in the mixed mode. It can work with both contact and contactless interfaces simultaneously. The power is always supplied by the battery of the mobile phone so that the contactless performance is better than any other contactless card which is powered by the RF field because of the stable power supply. SIMpass can also be set in Power-on Only mode,which means it only works when handset is powered on. In the mixed working mode, the SIMpass card is a multitask card. It can handle the SIM functions from contact interface, the payment transactions from the contactless interface and the payment transactions via STK, GPRS or some other ways from the contact interface simultaneously. As the SIMpass combines the telecom functions and the payment applications into one SIM card. It makes mobile phone a payment tool. It's easy to be used in low-value payment. For high-value payment, the handset's keyboard can be used as the PIN pad and the DES/RSA algorithm security mechanism can ensure the transaction security. The applications can also be updated via OTA.

Industry Insight
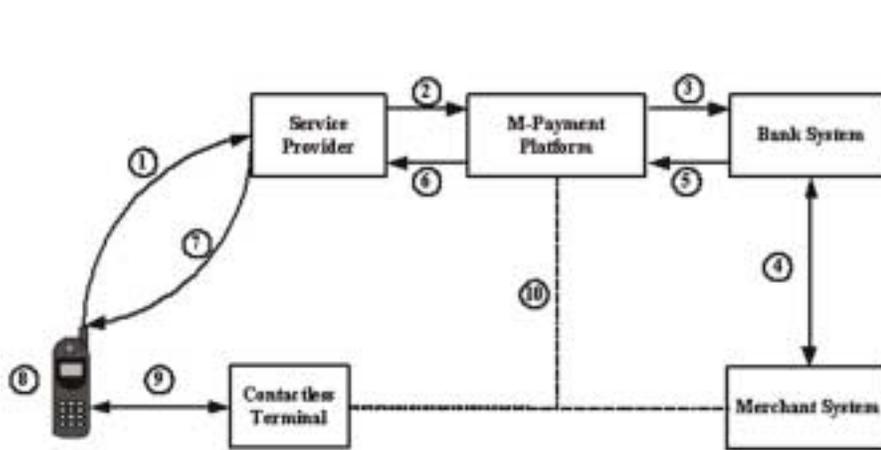
1. User sends transaction request

2. SMS platform sends relevant data to M-payment platform

3. M-payment platform sends data to bank host

4. Bank interacts with merchant and performs authentication and transaction

5. Bank encrypts transaction data and sends to M-payment platform

6. M-payment platform sends transaction data to SMS server

7. SMS server sends transaction report back to user

8. SIM card performs data authentication and recharges the e-purse

9. Consumers use mobile phone to make payment through contactless mode

10. Perform account settlement under supervision of m-payment platform

The Juniper Report of the Wireless World Forum suggests that global mobile business market revenue will continue to expand rapidly from $6.88 billion in 2003 to $554.37 billion in 2008. Mobile payment such as ticketing, shopping, retails, and personal payments, is expected to have a $40 billion market share by 2009. It is always true that market and technology challenges imply vital business development potentials. Mobile telecom operators and financial organisations with farseeing business plan and development creativity should sensitively team up to build a full M-Payment value chain for future mobile business applications.

Strong Growth of RFID Smart Cards

Dr Peter Harrop PhD, Chairman, IDTechEx Ltd   IDTechEx

Dr Peter Harrop

In the past, RFID Smart Cards have been successful only as transport cards - typically for buses or trains in place of tickets and often for several modes of transport. In 2005, this started to change with about 20 million credit and debit RFID cards being issued in the US. IDTechEx forecast a boom in RFID Smart Cards and related payment key fobs as a result of the reduced cost of the latest contactless card systems resulting in lower cost of ownership and the demand for new national identification cards.

Government/ health cards became increasingly popular in 2005, and are predicted to be the Smart Card success story of 2006, with increases of 42% forecast. A number of government ID and health card projects, implemented in countries such as Oman, Australia, Austria and Belgium, led to an increased demand for both memory and microprocessor cards in 2005, especially microprocessors. This demand shows little sign of slowing. However, many use contact technology which is not RFID and is unreliable and user unfriendly compared to RFID. e-Passport projects - all using RFID technology - showed strong development in 2005, particularly in Europe where some reached the pilot and implementation stages. It is these schemes in particular that are forecast to drive the sector growth in 2006.

China will issue about 970 million cards to adults by 2008 if its plan is met, then issue only replacements and cards for those becoming adults in subsequent years. Transport Smart Cards in 2006 include Korea completing the replacement of 20 million with a new version that has both contact and contactless interfaces. The new contacted interface is to deal with bank payment systems.

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PKI and EMV Converge in Brazil

By Daniel F. Nunes de Oliveira - Smartcon, Jorge F. Krug - Banrisul and Jason Crowe - Keycorp

Brazilian regional financial and banking institution, Banrisul, has partnered with local Smart Card consultant SmartCon and Smart Card technology provider and MULTOS implementer Keycorp to introduce an innovative product aimed at bringing together EMV transactions and Internet banking. In response to growth in fraud over the last few years, the banking industry is adopting secure portable hardware devices as a substitute for the now easily-clonable magnetic stripe cards.

However, the intrinsic differences between card-based payment and cash disbursement terminals such as POS and ATM and Internet-based channels have created two different security worlds - EMV for debit and credit transactions and PKI for Internet transactions.

EMV - EMV, a specification defined by Europay, MasterCard and VISA, has become the de facto standard for payment transactions in many regions including Europe, Asia and South America. Up until June 2005, more than 329 million EMV cards and 3.9 million EMV terminals had been deployed worldwide and these numbers are expected to grow at around 50% per year.

PKI - Unlike EMV, which is specific to debit and credit transactions, PKI is not tied to a specific application domain, nor does it imply the use of a standard interoperable card platform. This flexibility has led to the creation of a diversity of PKI card platforms, each providing distinct, and often proprietary methods for the secure storage of private keys and digital certificates and for the execution of cryptographic operations. As PKI cards are inherently more flexible, they have been used for innumerable applications including Internet banking, e-commerce and e-government, and have been adopted by many countries as part of a framework that both guarantees non-repudiation and grants legal rights to documents signed in compliance with a defined PKI system (such is the case with the Brazilian National PKI system, known as "ICPBrasil").

Putting EMV and PKI together - The distinct characteristics of each PKI card generally require the use of customised software modules at the application level, which represents significant challenges within POS or ATM networks. In comparison, EMV terminals contain a standards-conforming software module called an EMV kernel, which guarantees worldwide interoperability between cards and terminals. Despite the fact that a number of attempts have been made to use EMV cards in typical PKI scenarios (e.g. Internet) and vice-versa, there is little evidence to show that these two separate worlds will ever merge into a single, standardised application.

Certain situations, however, would appear to permit an alternative to the obvious, but not a necessarily cost-effective solution, to using two independent cards: the shared use of a single RSA-enabled smartcard for both applications. In the Smart Card world, convergence has generally come to mean the joining of once separate vertical markets, such as payments and mass transit, or government identity and access control. Equally, it has also come to mean the bringing together of unique technologies on a single platform, to achieve similar aims through different channels, such as using EMV and PKI to make payments via secure payment devices and the Internet.

The Benefits of Convergence - Banrisul, working with local Smart Card consultancy group, SmartCon, developed its own MULTOS EMV debit and PKI applications. Implemented on Keycorp's 32K MULTOS version 4.2 platform, the card lets the user perform EMV debit transactions (on Banrisul's own debit network, called "Banricompras") and to enjoy secure account access over the Internet (using PKI certificates generated by ICP-Brasil). Additionally, using the ICP-Brasil certificates, the user is able to sign documents, files and email with legal validity in Brazil; sign foreign exchange contracts with the Brazilian Central Bank; and access a number of e-government services that are not accessible via normal Internet portals.

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In Banrisul's case, convergence has allowed the cost of a 32 KB RSA Smart Card to be shared between applications and has permitted the use of security-enhancing EMV functionality, such as enciphered PIN submission and combined data authentication, unavailable with lower-cost, single application EMV cards. These features provide an effective countermeasure against the vast majority of known attacks related to debit and credit card transactions, as well as enabling off-line and distributed transaction validation. Additionally, the EMV-PKI convergence has generated significant reductions in the total cost of issuing as there is only one card to issue, deliver and manage.

Key Enablers - Integral to the Banrisul solution is the ability to securely operate multiple applications on a single chip. The secure, multi-application MULTOS smartcard operating system, selected by Banrisul, achieves this through a number of strategies:

1) *Strong Firewalls to keep applications separate* - strong firewalls implemented in both software and hardware ensure security and integrity between applications. The MULTOS virtual machine provides each application with its own memory space to hold code and data. If an application tries to read or write to the 'private' data area of another application, MULTOS will stop it from continuing its execution.

2) *Specific memory allocation* - the amount of memory each application requires is specified during loading and is fixed for the life of the application. This removes any chance that loading a new application on to a card will corrupt existing applications, or allow access to the memory space occupied by these applications.

3) *Issuer-approved applications* - only issuer-approved applications can be loaded on to the MULTOS Smart Card. Each application to be loaded is secured by a digital certificate that can only be obtained by the card issuer (or authorized representative). This certificate is verified for authenticity by the operating system using the MULTOS scheme RSA key, pre-loaded during chip manufacture. A similar method ensures that only the issuer can authorise the deletion of an application.

4) *Secure card updates* - a cost-effective means of updating the application and data on the card after it has been issued was put in place to achieve the necessary flexibility to keep pace with changing technology and market needs. MULTOS employs the same mechanism that is used to secure code and data during initial card issuance to update cards securely over any insecure or public network, post-issuance. This is possible because MULTOS supports the loading of encrypted pre-personalised applications, eliminating the need for expensive hardware security modules to secure communications to the card during the card update.

All of these MULTOS features are assured through a rigorous type approval process performed by independent, government-approved bodies.

Other Areas of Convergence - In Kaohsiung City, Taiwan, convergence has taken a different shape. In January 2005, as part of a drive to improve tourism, the City Government awarded a contract to implement electronic ticketing on its public transport system. It was recognised that the management of a Smart Card-based transport system requires the same skills and associated expenses as operating a payment scheme, such as card issuing, customer relationship management, risk management, clearing, settlement and payment acquiring. It was decided to leverage existing skill-bases by partnering with the banks for whom these types of operations are routine.

The solution was to use existing EMV Smart Card technology with the addition of a high-speed contactless payment function on the same chip, by using a Keycorp MULTOS 32K dual-interface chip, with Master-Card's M/Chip 4 EMV payment application and PayPass contactless application, and Taiwan's local debit/ATM application (FISC). The KCG TaiwanMoney card solution gives the cardholder the ability to pay for transport and low value consumer items using the contactless PayPass feature, as well as make standard EMV debit and credit transactions for higher amounts over the contact interface. Unlike other transit systems, which have opted to run as stand-alone programs, the KCG TaiwanMoney Card is suitable for use at any EMV acceptance point, worldwide.

Conclusion - Multi-application is not a panacea, but in contexts where an appropriate business case exists, sharing a single Smart Card between EMV and PKI applications is technically viable and brings cost reduction, additional security, and a value-added proposition to the card-holder.

Defending Contactless Against RFID

By Jason Smith, Staff Reporter, Smart Card News Limited

Jason Smith

Smart Card technology can offer significant benefits to governments and their citizens. These include authenticating identity, preventing fraud in government programs and improving data processing efficiency. In a recent statement the US Department of Homeland Security said, "More and more, government agencies on the federal and state level contemplate, or even mandate, the incorporation of RFID technology into various IDs and documents. Privacy advocates are trying to push back, arguing that the new technology poses a threat to privacy. It is thus a good time to form a new industry coalition dedicated to educating lawmakers about secure card technologies."

In the wake of this statement the "Secure ID Coalition" was formed to promote contactless Smart Cards and to provide another alternative to those relying on radio-frequency identification (RFID) chips. The mission of the coalition and its member companies, which aim to provide digital security solutions for identification documents - including contactless Smart Cards - is to promote the understanding and appropriate use of Smart Card technology while maintaining user privacy. The Secure ID Coalition was unveiled at the National Conference of State Legislatures annual meeting in the US. "While contactless Smart Cards can further improve system reliability and operating efficiencies, they require tailored security practices to protect confidential personal information contained on the cards and in central databases," said the newly formed coalition, in a statement.

The coalition, which includes Smart Card makers Gemalto and Oberthur Card Systems, as well as Smart Card chip makers Infineon Technologies, NXP Semiconductors (formally Philips Semiconductors) and Texas Instruments, have met with legislators to share their principles of privacy and their call for best practices and standards in securing identity information management programs. The Secure ID Coalition is to become a resource to policymakers seeking to ensure standards for the protection of citizen identity information. The Secure ID Coalition endorses the use of best practices for secure identity information management programs, such as:

❑   National Institute for Standards and Technology (NIST) Personal Identity Verification (PIV) standards.

❑   International Civil Aviation Organization (ICAO) Machine Readable Travel Document standards.

❑   Smart Card Alliance Best Practices for Contactless Chips.

Members of the Secure ID Coalition are to work with public and private entities to design secure solutions in identity management that also address the importance of protecting privacy. "The Secure ID Coalition is positioned to help with the education of legislators and government decision makers on the importance of security and privacy. An important part of this is explaining the differences between secure contactless Smart Cards for people based identity applications verses insecure RFID tags used for tracking products. The coalition is also positioned to advocate for appropriate security to protect a person's privacy in identity and other applications involving electronic chip based credentials." Said Neville Pattison, Director of Government Affairs at Gemalto North America.

As mentioned by Mr Pattison the coalition also aims to recognise the importance of citizen privacy rights, namely:

❑   Privacy of personal information as defined by all relevant regulations and laws.

❑   Confidence that ID documents have been appropriately secured against threats of fraudulent access to personal information.

❑   Knowledge of what data is contained in electronic ID documents; how that data will be collected, secured and transmitted; the presence of radio frequency (RF) technology in ID documents; and when, where and why an RF device is being read..

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A major goal of the coalition is to try to prevent state lawmakers from prohibiting technologies sold or relied on by coalition members. Pending bills in California, for instance, would outlaw the use of RFIDs in driver's licenses and school ID cards. Tres Wiley, Director of e-Documents at Texas Instruments said "You're going to see us continue to be active at the state level. We want to make sure state legislators don't enact bans out of fear and confusion."

So with the increase in RFID technology now being used for various IDs and documents, this new coalition has stepped up to defend the corner for contactless. But hasn't this been done before? The answer to that is yes? So why is this coalition any different? Will the current industry groups out there that deal with these similar issues have grown too large incorporating too many different kinds of companies as members. For this reason these groups are no longer able to provide useful impartial advice. The Secure ID Coalition on the other hand is only made up of a few companies that are mainly European, but these companies are some of the biggest players in the market and all have significant US Operations. So we will see if this new group can defend contactless effectively by educating lawmakers about the security benefits of contactless Smart Cards and how this technology can help in maintaining user privacy.
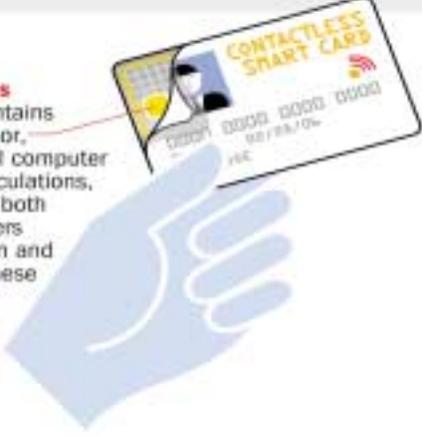
James Sheire, Manager of Government Programs at NXP Semiconductors summed up the actions of this new coalition by saying "It's critical to understand the differences between contactless Smart Cards and RFID, used to track cases and pallets. The Secure ID Coalition is engaging in Washington and in state capitals to explain the security and privacy benefits of Smart Card technology."

The Difference Between Contactless Smart Cards & RFID Tags

Overview: what happens in RF (radio frequency) communication

1 When a contactless smart card or an RFID tag passes within range, a reader sends out radio frequency electromagnetic waves.

2 The antenna, tuned to receive these waves, wakes up the chip in the smart card or tag.

3 A wireless communications channel is set up between the reader and the smart card or tag.

The **contactless smart card** contains a microprocessor, a small but real computer that makes calculations, communicates both ways, remembers new information and actively uses these capabilities for security and many other applications.
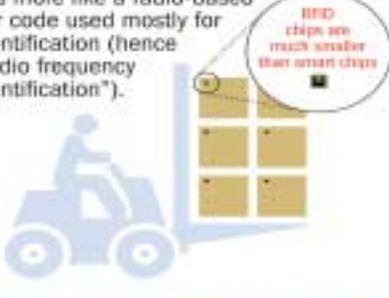
RFID tags are devices that typically have a read-only chip that stores a unique number but has no processing capability. It is more like a radio-based bar code used mostly for identification (hence "radio frequency identification").

RFID chips are much smaller than smart chips

Characteristics of a contactless card

● Strong security capacities:
  ▪ mutual authentication before providing access to information
  ▪ access can be further protected via PIN or biometric
  ▪ encryption to protect data on card during exchange
  ▪ hardware and software protection to combat attacks or counterfeiting

● Hundreds of security features mean an individual's personal ID, financial details, payment transactions, transit fares or physical access privileges can be safely stored, managed and exchanged

● Read and write memory capacity of 512 bytes and up, with very large memory storage possible

● Short distance data exchange, typically two inches

Characteristics of an RFID tag

● Minimal security:
  ▪ one-way authentication; card cannot protect itself
  ▪ insufficient storage for biometrics
  ▪ no on-chip calculations of new information
  ▪ relies on static keys

● Single function; used to help machines identify objects to increase efficiency.
  Example: inventory control

● Small memory (92 bytes); often read-only

● Larger distance data exchange, typically several yards

Because of their more restricted capabilities, RFID tags are generally cheaper.

Source: Gemalto

Industry Insight