



Smart Cards Help UK Police Fight Mobile Crime



UK Police forces now have a new way of fighting mobile phone-related crime, thanks to technology from smart card pioneers ORGA Kartensysteme GmbH. Smart Cards and reading technology from ORGA, and specialist software from ORGA's technology partner Radio Tactics is now being used by selected UK police forces to gather evidence to help victims of mobile phone-related crime, by accessing and examining data on a mobile device's SIM card.

ORGA's Smart Card technology-based forensic SIM analysis platform is the first portable solution which can provide law enforcement agencies with the capability to safely and confidently recover digital evidence from both GSM SIM and USIM-based devices - evidence which can then be transferred to police computers for further investigation and analysis.



The number of mobile phones in the UK has risen from 17 million to 51 million since 1999 and 28% of all reported robberies now involve a mobile, or are mobile related, according to the government's own data. ORGA's Smart Card technology is combined with Radio Tactics' own analysis module to enable police forces to download SIM card data which may be useful as prosecution evidence, or for other investigative purposes.

"ORGA helps us to deliver quality and reliability to the law enforcement customers commented Radio Tactics' MD Andy Gill. We're extremely proud to be able to help UK police forces tackle the fight against mobile related crime," he added.

"We have over 10 years of work specifically in the provision of technology to assist the law enforcement sector in mobile telecommunications. This response to a growing requirement demonstrates the breadth of capability that ORGA offers within the Smart Card technology arena," commented ORGA's Director of application and technology partnerships, Simon Reed.

"We also see the requirement for portable, rapid forensic level Smart Card monitoring equipment being required in many other areas. These include transport, for roadside tachograph driver card analysis, ID, for border or spot checks and EMV chip based bank cards. This can be a significant growth area for us over the next few years," he added.

Smart Card News is published monthly by Smart Card News Ltd Columbia House, Columbia Drive, Worthing, BN13 3HD England
Telephone : + 44 (0) 1903 691 779 • Fax : + 44 (0) 1903 692 616 • General Enquiries : info@smartcard.co.uk ISSN 1745-7858

Managing Director Patsy Everett ~ patsy.everett@smartcard.co.uk • **Production and News Editor** Jason Smith ~ jason.smith@smartcard.co.uk
Technical Advisor Dr David B Everett ~ david.everett@smartcard.co.uk • **Sales Administrator** Maxine Laker ~ maxine.laker@smartcard.co.uk

This Issue's Guest Contributors: • Wise Media • Jochi Fuchs • Bruno Charrat • Peter Thomlinson •

Russian Agent : Alex Grizov Recon Company "Sport Hotel" 5th Floor Leninsky Prosp., 90/2 Moscow 117415 Russia

Editorial Consultants Dr Kenneth Ayer • Peter Hawkes • Simon Reed • Robin Townend

Printed by Gemini Press

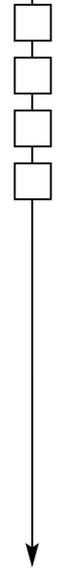
Please Note

From time to time, *Smart Card News* may include industry forecasts and forward looking statements made by the companies concerned. Readers should be advised that Smart Card News Ltd cannot be held responsible for decisions and/or actions taken by readers of our newsletter, based on the information provided including any errors therein, nor are we responsible for the opinions of the individual authors.

Don't Forget!

Our Website containing daily News On-Line, and information about the full range of SCN services, can be found at the following address: www.smartcardgroup.com

Certain images featured in this issue obtained from IMSI's MasterPhotos™ Collection 1895 Francisco Blvd. East, San Rafael, CA 94901-5506, USA



Lead Story



A Verified Christmas for Visa

Visa International has forecast that global e-commerce sales for 2004 will exceed \$150 billion. This forecast increase of 56% is, according to Tim Lee, VP of Global Commerce at Visa, due to customer confidence and increased familiarity of the Internet and the improved security available to on-line shoppers because of programmes such as Verified by Visa. Lee says that over 15 million card-holders worldwide are actively using secure credit card technology and that more than 10,000 member financial institutions and 30,000 merchants are participating in the Verified by Visa programme.

Accord Leads Scottish Smart Cards

The team behind Aberdeen's pioneering citizen card, Accord, is sharing its experience with other Scottish authorities developing Smart Card schemes. Accord and partner Microexpert, a Smart Card consultancy and part of the Smart Card Group (www.smartcard-group.com), is hosting a six month training course for 11 local authorities, looking at the technical side of Smart Cards and their supporting infrastructure.

The councils taking part - Aberdeen City, Angus, City of Edinburgh, Dumfries and Galloway, Dundee City, East Lothian, Fife, Inverclyde, Midlothian, West Dunbartonshire and West Lothian - are all members of the Scottish Citizens Account Smart Card Consortium. They are working together to use Smart Cards and Smart Card applications to their full potential in delivering services. It is anticipated the Consortium will grow in the months to come, with more authorities keen to become involved.

Korean RFID Project for Inside

INSIDE Contactless, through its Korean partner, ID Future, has won the project for the supply of several tens of thousands of PicoTag cards and M300-2G long range readers to Hyundai Cards and KISCOMM for the RFID inventory management system.

The application involves tagging each box with an RFID tag containing relevant data such as the box number, card information, subcontractor's information etc. These boxes are, in turn, packed into a bigger box which is also tagged and delivered to Hyundai Cards by their suppliers.

Arizona Cat Card Roars Again

The University of Arizona (UA) has expanded its Cat Card program to keep with a 5-year check plan to implement new technologies and provide the best level of service to the card and campus community. The card upgrade now allows Arizona the option of implementing new applications as the need arises, without having to recall or reissue new cards. Among applications being considered is Web Revalue to facilitate card reloading over the web, and SmartCity Acquirer which would allow the Cat Card to be used outside of the traditional campus setting, across Tucson and surrounding districts.

New Smart Card Features

The European Telecoms Standards Institute (ETSI) and GlobalPlatform have taken a major step towards establishing complimentary standards for downloading applications and management commands to Smart Cards over-the-air. ETSI's Smart Card Platform (SCP) Committee and GlobalPlatform have fully aligned the latest versions of their Smart Card specifications - ETSI's UMTS Integrated Circuit Card (UICC) Specifications (TS 102 225 & 226) and the GlobalPlatform Card (2.1.1) Specification. The result of combining the ETSI SCP Smart Card solution with GlobalPlatform's multi-application infrastructure is that they will now provide one end-to-end solution for secure, flexible and remote Smart Card application life cycle and file management.

SafesITe for Government

Gemplus has launched of 'SafesITe Government', its smart ID management system designed to help U.S. Federal agencies quickly comply with Homeland Security Presidential Directive/HSPD-12. Issued by U.S. President Bush on August 27, 2004, HSPD-12 requires that all Federal executive departments and agencies issue "secure and reliable forms of identification" to employees and contractors for physical access to all Federally controlled facilities and logical access to Federally controlled information systems during 2005.

This Smart Card based identity management system embraces interoperability and allows systems integrators to concentrate upon their core capabilities: integration and delivery of the total identity management solution within the Federal agency legacy environment.





SafesITe Government includes Gemplus's Smart Cards, readers, personalisation, issuance, and professional services, as well as applets, desktop, and card management system software from Dreifus and Associates, LITRONIC/SAFLINK, and Bell ID. The integrated system allows Federal agencies to enrol employees, personalise and issue smart ID badges, as well as update and manage the badges post-issuance.

RFID Security for Media Building

LEGIC Identsystems Ltd has supplied the RFID technology to enable a key media building in the heart of London to upgrade its access control system. Working with parent company Kaba, the design and installation of an electronic access control system at Four Millbank, the prestigious center opposite the Houses of Parliament used by the media, news agencies, and other high profile organisations for high level meetings and broadcasts, has been completed.

OTI Enters European Market

On Track Innovations Ltd. (OTI) has entered into the emerging European countries market with the completion of its acquisition of ASEC S.A. In exchange for all of the outstanding shares of the capital stock of ASEC, OTI will issue to Nextel S.A. OTI ordinary shares having an aggregate market value of between \$1.6 million and \$1.95 million. The acquisition was conditioned upon ASEC's receiving an order to supply 1,000 units of contactless reader solutions for micropayments. The order, which has been received, is for a Polish mass transit system. OTI believes that it will be followed by introduction to other payment sectors in the future.

Gemplus Expands China Operations

Gemplus has opened a new plant in Tianjin, which will employ the advanced Gemplus Production System to provide Smart Card solutions. Tianjin Gemplus, a joint venture between Gemplus and Tianjin Zhong Tian Telecommunication Co., Ltd., a subsidiary of China Putian Group, one of China's leading providers of telecom Smart Cards, made the decision to build the new plant based on market trends and the success of its current operations.

The new plant, which covers an area of approximately 50,000 m², will primarily produce Smart Cards for GSM & CDMA mobile phones, fixed phones, PHS phones and as of October 2004, has already produced over 400 million Smart Cards.

First Order for 64K Smart Cards

Gemplus has received an order from a tier one systems integrator to deliver 64K Smart Cards, marking the first volume order for high-end 64K Smart Cards for the U.S. Federal Government. Scheduled to begin delivery in December 2004, the 64K Smart Cards will include both contact and contactless chip functionalities. These "hybrid cards" will be used by employees of several U.S. Federal agencies for both secure physical and logical access to government facilities.

Delivery of 100 Millionth EMV Card

Oberthur Card Systems has delivered its 100 millionth EMV card to the UK banking market where it has over 60% market share for EMV chip cards. With an impressive portfolio of banking customers in the UK, Oberthur Card Systems started delivering magnetic stripe cards, and then migrated them to UKIS chip cards, and eventually to EMV and Chip and PIN rollouts.

200 Million Card for MasterCard

MasterCard has reached a key milestone on the road to global Smart Card adoption. As of the third quarter 2004, MasterCard's customer financial institutions have issued more than 200 million MasterCard, Maestro and Cirrus Smart Cards around the world.

For more information visit ...



Smart Card Group

www.smartcardgroup.com

Inside Contactless

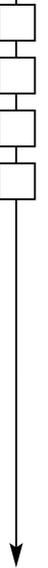
www.insidecontactless.com

LEGIC Identsystems Limited

www.legic.com

On Track Innovations Limited

www.otiglobal.com





This key milestone confirms that global EMV chip deployment on MasterCard payment cards is now entering into a new phase of mass-market adoption in Europe, Latin America, Africa, Asia and the Middle East. Forty percent of these 200 million Smart Cards now carry an EMV chip. These EMV chip cards are currently accepted at approximately 1.5 million fully-approved EMV terminals worldwide, representing an 85% increase in EMV-enabled terminals year to date.

.NET-based Smart Cards

As a part of Microsoft's IT Forum'04, Hive Minded announced the first commercially available .NET-based Smart Cards. During Bill Gates' keynote address, the cards were highlighted for utilising the embedded .NET implementation developed by Hive Minded, Inc. Hive Minded's .NET implementation with its Smart Card partner Axalto (formally a division of Schlumberger), enables Smart Cards to help provide secure network access to Microsoft computer systems and facilities.

Oberthur Selected by Vodafone Spain

Oberthur Card Systems has been selected as a supplier to Vodafone Spain, one of the major operators of the Vodafone Group. The selection by Vodafone Spain involves the supply of the SIMphonic V3 64k interoperable Java card. The SIMphonic 64k card is one of Oberthur Card Systems' key products, providing additional memory for the storage of applications, which can be managed remotely during the lifecycle of the card.

Keycorp Says Targets On Track

Australian Smart Card and payments terminal company Keycorp Ltd., has announced its fiscal 2005 targets are on track. "We are on target with our first half budget and at this stage we believe our results for the year ending June 30, 2005, should produce turnover in the range of A\$110 million to A\$120 million," Chairman Malcolm Irving said in his speech to shareholders at the group's annual meeting.

The company is also on track to maintain growth at the earnings before interest, tax, depreciation and amortisation level, Irving said. He didn't provide any specific figures.

1st Keycorp Smart Card Issued in Asia

Keycorp Limited has announced that a large multinational card issuer has ordered the Keycorp MULTOS step/one platform for its EMV rollout of MasterCard International Smart Cards. The order was placed through Singapore-based Cassis International, which provides issuing services, including card personalisation, for the bank. The initial rollout will occur by the end of the year in the card issuer's Malaysian branch network.

The group will be the first card issuer in Asia to roll-out cards based on the MULTOS step/one platform. It will also be the first MULTOS step/one customer for MasterCard. Keycorp's MULTOS step/one is a new entry level open Smart Card operating system designed to give financial institutions a low cost way to adopt an EMV (Europay MasterCard Visa) smart-card strategy and then make the easy transition to a fully configured MULTOS platform at the time of their choosing.

Smart Cards for UK SIA

Oberthur Card Systems has been selected as the exclusive Smart Card solution provider by British Telecom (BT) to supply an estimated 100,000 Licence cards over the next three years to the new UK Government agency, the Security Industry Authority (SIA). The SIA manages the licensing of the private security industry in England and Wales and security employees with an objective to raise standards of professionalism and security within the industry and to promote best practice.

Using an Oberthur Card Systems ID-One Smart Card the SIA will issue [cards] licences to registered members working in different sectors of the security industry. The SIA will maintain a public database of all [cardholders] licence holders. The service will include the Smart Card verification mechanism for authentication of the SIA cardholder.

Oberthur Opens a New Plant in Brazil

Oberthur Card Systems has opened a new manufacturing and personalisation facility in Brazil. Located in Cotia, a suburb of São Paulo, this new production site of approximately 1,200 square meters is mainly dedicated to address the Brazilian market and potentially the rest of the Latin American countries.





UAE Firms Considering Biometrics

Galton Biometrics has announced that many companies in the United Arab Emirates (UAE) are considering the introduction of biometric technology to increase workplace security, according to an independent survey commissioned as part of the Hitachi Data Systems Storage Index. The survey finds that 55% of firms in the UAE say that iris scanning and fingerprint recognition systems will soon be introduced for increased security in office buildings. The majority of those, 24%, expect this to take place within the next 12-24 months. This comes amid growing adoption of biometric technology by border control and public sector organisations.

UAE's Smart Card Border Security

The Kingdom of Jordan has selected E-Gate as an integral part of its effort to improve both the security and efficiency of its international border protection systems. E-Gate, currently deployed at Dubai International Airport in the United Arab Emirates (UAE), is an automated entry and exit gate system that regulates the process of arrivals and departures. The E-Gate system is a Smart Card screening system for electronically controlled border gates. Epok's TDX 4.0 provides a platform for the controlled exchange of data between trusted parties

LogicaCMG Supplies DIANTA

LogicaCMG and the Dutch Transport Inspectorate (Inspectie Verkeer en Waterstaat - IVW) have signed an agreement for the development and deployment of a digital tachograph reading system. The tachograph, which is installed in all lorries and buses, is the tool for monitoring the mandatory periods of driving and breaks for coach and truck drivers. The system to be created is called DIANTA and supports IVW inspectors reading digital tachographs. European legislation states that inspectors should be able to obtain digital readings from tachographs from August 2005.

OTI Supports ExpressPay

On Track Innovations Limited's (OTI) Saturn 5000 contactless reader has received certification from American Express to support its ExpressPay contactless payment program.

This follows OTI's recent announcement as the only company to date to obtain type approvals on both its MasterCard PayPass compatible card and reader solutions.

Port Rotterdam Relies on Biometrics

Recognition Systems, the biometric component of Ingersoll-Rand's (IR) Security & Safety's Electronic Control Systems, has announced that the Port of Rotterdam (Netherlands), an international centre of trade, trans-shipment, industry and distribution, is using hand geometry technology in conjunction with a smart chip card to verify that truck drivers entering and exiting the port are who they say they are. Fraud is virtually impossible by using the biometric hand scan in combination with the CargoCard.

Athena Joins with MyID System

Intercede Group Plc, has announced that Athena Smart Card Solutions, will incorporate Intercede's MyID Smart Card and identity management software. This solution will provide Athena with a comprehensive Smart Card and identity management system to work in combination with Athena's ASECard Crypto cards and PKCS#11/CAPI Middleware solution.

Athena's customers can leverage Athena CMS (Card Management System) Smart Cards and identity management software to quickly migrate to, and deploy multiple Smart Card based ID security solutions and applications including: multi-application ID badges, physical and logical access controls, biometric identity verification and payment for goods and services.

For more information visit ...



Axalto

www.axalto.com

Keycorp Limited

www.keycorp.net

Oberthur Card Systems

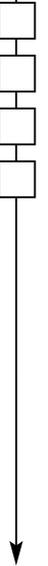
www.oberthurcs.com

Orga Kartensysteme

www.orga.com

LogicaCMG

www.logicacmg.com





New Oberthur/Comex System

Oberthur Card Systems together with Comex Electronics AB have launched the new Comex Biosec reader incorporating Oberthur's Smart Card. Three identity controls are performed before granting access to the user: card, PIN and fingerprint biometric. The highest level of security is provided by the card, the applet and the reader which have all three received Common Criteria EAL4+ certification - all processing and data manipulation takes place between the card and card reader.

Galton Captures Asian Bio Market

Galton Biometrics Inc has announced it has entered into a Joint Venture agreement with HeXa LB in Hong Kong for the development of a biometric-friendly film that will allow the accurate reading of a finger print without transmission of any known "non airborne" disease, such as SARS. A key issue in China's mass roll out of biometric solutions is the transmission of Severe Acute Respiratory Syndrome (SARS), and addressing whether biometric devices will increase the risk of spreading the disease in the event of a further outbreak.

Bulldog Hires NASA for RFID

Bulldog Technologies Inc., a provider of wireless cargo security solutions, has announced that a team of NASA experienced Radio Frequency Identification (RFID) engineers has joined the company. The team, located in Boulder, Colorado, developed data management systems that flew on the Space Shuttle Columbia and camera systems that flew on many different launch vehicles. In addition, the team has developed avionics components for Pegasus rockets, manufactured by Orbital Sciences Corporation.

Smart Cards for Condoms

To mark World AIDS Day, the Shanghai Daily has reported that two hundred Smart Card condom vending machines have been installed in entertainment venues, wet markets, residential buildings and business centres in Xuhui District and Pudong in China. Residents and workers can access condoms by using contactless Smart Cards that act as an electronic purse allowing the purchase of condoms without the use of physical money.

The Shanghai Population and Family Planning Commission have stated that this trial scheme, if successful, will be promoted in further regions throughout China.

JCB Mobile Infrared Credit Payment

JCB has announced that it will start a three-month pilot project for its mobile infrared credit payment system on November 29 2004 under the name "JCBeam Trial."

First ITSO RFID Chip/Reader

ACG Identification GmbH has launched the world's first ITSO version 2.1 compliant RFID reader - the HF Dual ISO reader - which offers full compatibility with Jewel, the latest smart ticketing chip from Innovision Research & Technology plc. Innovision R&T believes that the combination of Jewel - the smallest and most cost effective ticketing chip in the world - and ACG's fully ISO 14443 A/B compatible RFID reader will provide the UK transport sector with a very exciting new offering.

Contactless Smart Card systems based on RFID technology will enable transport operators to cut costs, automate processes and increase passenger throughput. These latest developments from Innovision R&T and ACG will accelerate the adoption of low-cost smart ticketing and promote interoperability between UK transport operators.

Visa Smart Card Program Expanded

Visa International has announced that Axalto has joined the Visa Smart Breakthrough (VSB) card program, which has been expanded to provide a broader choice of chip technology products for Visa member banks. Through the VSB program, Axalto will promote the Palmera VSB Classic and Palmera VSB Protect Java cards to Visa members globally and the e-Galleon.

The agreement with Axalto is part of a major ongoing initiative to provide chip products and services that meet the needs of Visa members worldwide. Card manufacturers' own static/native cards and their GlobalPlatform Visa approved chip cards now qualify for inclusion in the program, significantly increasing the choice of products for Visa members as they migrate to EMV chip.





On the Move

New Directors for RFID Company

Innovision Research & Technology plc, a developer of Radio Frequency Identification (RFID) technologies has strengthened its Board of Directors with the appointment of two non-executive directors, Mr Malcolm Baggott and Dr Ian Buckley-Golder. Both bring considerable commercial and city experience to the roles, particularly from the fields of technology and engineering, as well as relevant vertical market sectors, including pharmaceutical, medical and telecommunications.

New Manager at Cryptography

Cryptography Research has announced the appointment of Smart Card industry veteran Ken Warren to head up the effort as Smart Card business manager. Warren will ensure European customers can successfully implement CRI's patented countermeasures, and he will actively represent CRI in all European Smart Card industry activities. In his position as Smart Card business manager, Ken Warren brings a wealth of industry expertise, and CRI's European customers will be able to benefit from his support at the local level.

2nd Term for GlobalPlatform Chair

Following the annual GlobalPlatform Board Officer elections that took place in early November, Bob Beer from Datacard Group has been re-elected to serve a second term as Chair of the Smart Card infrastructure development organisation. Bob, who initially took up the post as Chair of GlobalPlatform in FY2004, will continue to work closely with Jim Lee, from Visa International, who will serve his fourth term as GlobalPlatform Vice Chair and Shoji Miyamoto from Hitachi who retains the role of GlobalPlatform Secretary / Treasurer for a second term.

The GlobalPlatform Board has also inducted a Strategic Director. David Asay from IBM will fill this role with immediate effect. David will provide the GlobalPlatform Board with strategic advice as a 'cross-industry, supplier-independent solution provider'. For the past eight years, Mr Asay has managed the IBM Global Smart Card Solutions organisation that is responsible for integrating Smart Card solutions in many industries using technologies from all suppliers to meet the needs of IBM's clients.

New Director at Smart Card Group

The Smart Card Group, of which Smart Card News is a part, have announced the appointment of Dave Petts as Business Development Director. Dave has a wealth of commercial experience as a Sales and Marketing Director within the fresh food sector, with budget responsibilities of £20m. Dave will be responsible for both existing and new clients to the group in addition to developing new areas of smart card business.

New VP Product Manager at Indala

Simon Barnes has been promoted to vice president of product management for Indala. He will report to Indala president, Marc Freundlich. Indala develops and manufactures contactless and contact Smart Cards. In his new role, effective January 1, 2005, Mr. Barnes will create and implement product strategy to exceed customer demands and corporate objectives.

WJC Board Member Resigns

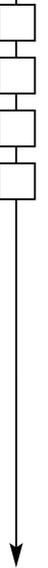
WJ Communications, Inc. (WJC), a designer and supplier of high-performance RF semiconductors and multi-chip modules (MCM), has announced that Stavro E. Prodromou, Ph.D. has tendered his resignation as a member of the Company's Board of Directors for personal reasons.

New Sales Member at OMNIKEY

OMNIKEY has announced the appointment of Marc T. Hanne as Sales Manager EMEA located in OMNIKEY's headquarters in Walluf. He will directly report to Volker Kunz, Member of the Board and will be responsible for Sales & Marketing. Marc T. Hanne will be mainly responsible for OMNIKEY accounts in Central and Eastern Europe.

Infineon's Board Expands

Loh Kin Wah has joined Infineon's Management Board. This was resolved at a meeting of the Supervisory Board. Loh Kin Wah will continue to be responsible for the Asia Pacific region and will work out of Singapore. Since the foundation of Infineon in April 1999 he was President and Managing Director of Infineon Technologies Asia Pacific. Infineon Technologies Asia Pacific now contributes around one third of the company's global revenues.





Card Manufacturing Global Market Survey

The International Card Manufacturers Association (ICMA), a global non-profit association for card manufacturers, personalizers and suppliers, issued the results of its Sixth Annual Card Manufacturing Global Market Survey. The Survey, measuring results for 2003, revealed for the sixth consecutive year that while the North American Region leads the world in the total number of cards manufactured, Europe continues to be the most lucrative market as measured in dollars. The survey measured numbers of cards manufactured and market volumes. Major findings revealed that globally, in 2003, approximately 11.7 billion cards were manufactured, a 9.3% growth rate. The global card marketing measure in U.S. dollars increased 27.1% to \$6.1 billion, resulting from the impact of microprocessor chip card growth.

The regions surveyed were North America, Europe, Asia Pacific, Latin America and MEA (Middle East/Africa). The products surveyed were plastic cards of all thicknesses including traditional cards-with and without magnetic stripe, and chip cards that include contact, contactless and combi-cards for diverse applications such as financial hologram cards, ID cards, telecom cards, gift cards and more. The Survey revealed the following growth statistics:

- ❑ 9.3% global unit market growth to 11.7 billion cards
- ❑ 27.1% global dollar market increase to \$6.1 billion - impacted by microprocessor chip card growth.
- ❑ North America number 1 in units slipping to number 4 in dollars - lagging in chip card growth.
- ❑ Europe number 1 in dollars and number 2 in units - driven by microprocessor chip cards in the financial and other secure (GSM) sectors.
- ❑ Asia/Pacific card market number 2 in dollars and number 3 in units - driven by China and chip card growth.
- ❑ Latin America now number 3 in dollars.

The Survey analyzed card-specific statistics and reported the following:

- ❑ Traditional cards represent 83.8% of the units and 21.3% of the dollars while chip cards represent 16.2% of the units and 78.7% of the dollars on a global basis.
- ❑ Non secure cards represent 42.9% of the global card unit market.
- ❑ Financial hologram cards represent 11.9% of the global card unit market.
- ❑ North American unit card market remains number 1 in 2003 with 53.1% share while Europe is number 2 with 22.1% and Asia/Pacific number 3 with 17.8%.
- ❑ Financial hologram units increased by 9.5% and dollars increased by 46.8% impacted by EMV migration to chip card.
- ❑ Other secure cards had significant growth with 7.7% on units and 42.7% on dollars impacted by GSM/telecom and transit chip cards. Memory chip cards (prepaid telephone) have rapidly declined in most markets.
- ❑ Non-secure units are up 10.9% driven by the Loyalty and Gift card sector. The dollar value declined by 10.0% impacted by price pressure.
- ❑ Chip Card units grew 6.3% to 1.9 Billion while dollars grew slightly to \$4.8 Billion influenced by GSM/Telecom growth, transit growth, EMV migration, prepaid telephone memory card rapid decline, healthcare growth, overall price pressure





Growth in European Electronic Payments

Published for the first time in a European version, the Observatory report, which in Italy is now in its fifth edition, sees the continuing collaboration between FTI (Forum per la Tecnologia dell'Informazione) and the SSB (Società per i Servizi Bancari) Group in the analysis of the world of electronic cards and payment systems, and confirms its position as a rich and exhaustive overview of the evolution of the payment systems scenario in Europe, for banking and financial operators, institutions, businesses and public opinion.

Electronic payment transactions, corporate banking, e-commerce, mobile-commerce - these are the innovative applications examined in the Observatory report and they represent the new frontiers the European bank system is facing, with increasing potential, in the competitive international scenario. "The growth of electronic payment cards is unstoppable and they are increasingly becoming the dominant payment instrument," commented Giorgio Pacifici, Chairman of FTI. "As the figures show, Europe is in step in the development of new payment systems thereby contributing to the prospect of a more homogenous scenario in the economic and financial sector. These figures and trends, with obvious differences from country to country, will be further confirmed by the increase in security standards made possible by microchip technology".

The process of market globalisation and technological innovation on a vast scale, together with the evolution in the use of payment instruments, have led to the rapid growth in cards and electronic payments throughout Europe. In Europe in 2003, there were 919 million memory cards and 979 million microchip cards in circulation, giving a total of 1,898 million cards, a figure which will rise to nearly 2 billion units in 2004.

Amongst the countries at the forefront are Germany and the UK, which have always maintained leadership in the innovation of electronic payment systems. In the medium term (2006), reliable estimates forecast a growth trend in issuing which will take the number of payment cards to 695 million (and to 1,715 million in 2011), the number of communication cards from 2,340 to 3,800 million also in 2011, with a lesser but still significant growth in cards designed to protect identity and linked to services for citizens.

Bank of Italy figures reveal a complex situation for cashless payments, in 2002 ranging from 8 operations per capita in Greece (half of which carried out using credit cards) to 218 in France (the largest share of which was represented by cheque payments). Among the macro-trends are the growth in credit card and debit card payments and the drop almost everywhere in cheque and credit transfer transactions. The migration to microchip, delayed almost everywhere in Europe, is resuming.

For example, forecasts for migration to EMV standards indicate for Austria a rise from the 500 thousand cards in 2004 to 4.3 million in 2005 and 5.3 million in 2006; for France from 500 thousand in 2003 to 10 million this year, reaching 15 million in 2006, and the same in Italy. Still at the forefront however are Germany (which will have a total of 64 million EMV cards in circulation in 2006, and already today has 40 million, and the UK which in 2005 will have 45 million.

"The creation of a single European payment system is the ambitious aim that has already won the consent of banking associations and the major European banks, leading to a strengthening of co-operation at European level," commented Nicola Cordone, CEO of SiNSYS. "The infrastructures of the Italian banking system are now increasingly being adopted as a reference standard in other countries.

"In an increasingly rich and complex context like that of electronic payments in the European system, protection of digital identity has become a necessity not only for private citizens but also for businesses, banks and public administration," commented Mario Magini, Head of Business Department at Actalis. "Our company's mission is to supply state-of-the-art instruments and solutions to improve logical security levels, with the ultimate aim of contributing to the spread of an IT security culture, also through specialist consulting activities".





Manufacturing RFID Transponders: Market and Technology Trends

sokymot

An Interview Conducted by Wise Media S.p.A.

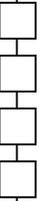
On the path towards broad adoption of RFID technology, the development of an international standard such as EPC (Electronic Product Code) now endorsed by EAN and UCC is indeed an important milestone. But it is important to keep in mind that the market for RFID components is still substantially elsewhere. On one hand we recognize that EPC has become the most talked about topic and a beloved buzzword at international events of the RFID industry. On the other hand, one must recognize that the volumes of manufactured EPC tags are still very small if compared to those of traditional RFID tags and that not everything leads to think that this proportion is about to be inverted in the very near future.

André Ziegler, C.E.O. of Sokymat shares with Wise Media his vision on how the production of radio frequency identification components will evolve in the years to come. "There is nothing substantially new in the recently introduced term 'Electronic Product Code'" says Ziegler. "If you take a close look at any RFID transponder, you will see that technically speaking it is an electronic tag containing the code which identifies an item. Any tag consists of a memory chip, which stores the identification code and other relevant data, attached to an antenna, which is used to send and receive information each time an RFID reader sends an interrogation signal.

What really differentiates the vast population of RFID transponders available today is basically related to two main characteristics: the frequency of communication (generally 125 kHz, 13.56 MHz or around 900 MHz) and the type of packaging that enables the electronic unit to become a reliable and resistant tag in a given real world environment. Of course there are many different combinations of the two that allow manufacturers to come up with many different types of RFID tags: from simple 915 MHz labels to replace bar codes for item-level tracking to robust embedded tags for pallets, from paper-based 13.56 MHz tickets to plastic overmolded tags for laundry applications, from 125 kHz glass tags for pet and animal identification to plastic contactless cards, et cetera. And again, if you look at the detail, it is possible to produce the RFID antenna of the transponder in different ways: using copper coil, etching a Copper or Aluminum layer, or screen-printing a conductive ink onto the surface of an appropriate carrier. Moreover, different technologies are used to connect the antenna to the RFID chip.

Manufacturing processes for RFID transponders: When it comes to the manufacturing technologies involved in the production of RFID transponders, these vary substantially according to the materials used and performance specifications (reading distance, transmission frequency, size, reliability and cost). There is of course a quite explicit parallel between the target application of the system that will use the RFID transponder and the technologies chosen to manufacture the RFID tag. Ticketing applications will require thin, cheap transponders that can be read at a short distance and feature re-writable memory chips - in other words paper or plastic based transponders, communicating at a frequency of 13.56 MHz; industrial laundry applications, where garments are individually identified and handling processes automated, will require robust tags that can withstand the harsh operating environment, in terms of high temperatures, high humidity, and contact with chemicals used in the washing cycles.

In this case, the cost of the single tag is not as much an issue, as the return on investment is based on a long life cycle of the reusable tag, which lasts at least for the life of the garment or linen, if not longer. Looking at these two different tag typologies - an RFID transponder used for one-day electronic ticketing in public transportation and a tag used for the identification and tracking of garments in industrial laundries - one can see that the manufacturing processes involved in their production are totally different:





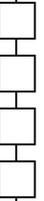
- ❑ the transponder for the one-day ticketing application is most probably the result of a reel-to-reel assembly process, that utilizes low-cost materials with etched or printed antennas;
- ❑ the transponder for the laundry application needs the electronic unit to be hermetically embedded in a heat-, water- and chemical-resistant plastic housing, while the antenna will be made of more robust material.

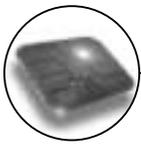
Competition in RFID transponder manufacturing: Numerous players in the RFID industry have chosen to specialize in a given market segment and have developed their manufacturing competence in an specific direction: those who decided to focus on emerging RFID-based one-day ticketing applications, for instance, are now specialized in manufacturing RFID transponders with high-volume assembly lines, implementing etching or printing processes and using the traditional materials that are typical in this segment of applications. They did not develop any expertise in the assembly of RFID transponders other than with a flat form factor nor in the utilization of different materials for the packaging of the electronic units, but focused exclusively on reaching the goal of developing standards at an industry level and achieving lower manufacturing costs through high volume production.

Other RFID tag manufacturers chose to focus on simple labels used, for example, in item-level tracking or in libraries. Some of these players, reaching out to grasp the opportunities promised by the RFID revolution in retail and the dream of item level RFID tagging, have chosen the role of innovators and are exploring new means to assemble the electronic units at the lowest cost imaginable. Of course the stabilization of these technologies will need a substantial effort on the side of research and development and impressive investments for their industrialization, most probably resulting in a very long time to market even in the most optimistic scenario. Our understanding of the complexity of the issues that will be encountered in the deployment of UHF transponder technology in supply chain systems is exactly what makes us take distance from certain statements and declarations that to us seem too ambitious today. In simple words, we do not think that the UHF technology used for item level tagging is just around the corner. We can see this from the way the market is expressing its demand for RFID technology today. We furthermore see a manufacturing and design issue which is being underestimated but which cannot be ignored in the long term if we really want to see very low cost RFID transponders reach the market.

Great expectations deriving from the EPC standard: No matter how frequently the word EPC occurs in the presentations and discussions that are held at leading industry events, it seems to me that it frequently remains unsaid that the real volumes of RFID transponders manufactured today are everything but related to UHF tags. The expectations are of course very high, as the dream of making the retail industry aware of the benefits of RFID technology has never seemed so real. But is the RFID industry really ready to deliver the appropriate transponder products with the required quality level, with the reliability that is expected even in the real world, and to offer them at expected price point? Having developed and accepted a common standard such as EPC, are we really about to see the broad adoption of RFID as common means to improve the logistics infrastructure for the global distribution of products?

The emerging market of UHF RFID transponders: With regards to the very specific and also much talked about segment of UHF transponder technology, I do not think it is wise to forecast an immediate boom of the market. The opportunity to sell immense volumes of electronic labels might animate the appetite of venture capital driven initiatives or suppliers that want to build a competitive advantage in terms of experience in this field before new and financially powerful players enter the scene. But looking at the manufacturing technologies used today, I just cannot see any manufacturer of RFID transponders reach the desired price point of 5 cents per unit. I am convinced that paving the road to a broad adoption of RFID technology in the world of retail is not just a matter of accessing economies of scale. Many challenges still need to be addressed in UHF technology such as antennae designs that fit all items (form factor issues), low cost antennae manufacturing, chip handling and connection to the antenna for high volume and low cost production in combination with the tag's functional reliability. We are working on these different key areas by exploring the different antenna manufacturing technologies and connectivity technologies. We believe that additive antenna manufacturing technology will surpass subtractive technology for UHF tags targeting the extremely high volume retail applications (item-level tracking).





Unifying Physical and Logical Access

By Jochi Fuchs, Athena Smartcard Solutions



Increased security risks, combined with the weakness and inefficiency of the user name and password model, are now driving the need for Smart Card-based logical access control. Smart Cards store large amounts of data, carry out on-card functions such as encryption and digital signatures, and interact intelligently with a Smart Card reader. Smart Cards provide a proven cost-effective solution. Further, they can be integrated with competing technologies to derive maximum benefit as they are highly flexible and can be easily modified and upgraded to complement other systems.

Two Factor Authentication: Already widely implemented, Smart Cards provide higher assurance via two-factor authentication—it requires something the user knows (a password) and something the user has (the Smart Card). Smart Cards also provide stronger authentication by virtue of being based on Public Key Infrastructure (PKI). PKI is the architecture of trust that supports a certificate-based public key cryptographic system. PKI uses a combination of public and private keys to authenticate identity, and includes digital certificates, a certificate issuance authority and a registration authority.

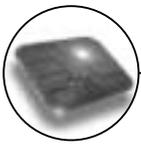
Combining Physical & Logical access: With card based physical access already in place at many enterprises, the next logical step is to afford the same level of protection for information assets. Physical access control provides a first line of defense, but a multi-layered approach is required for truly proactive security. As such, there is a compelling argument to implement Smart Cards for logical access. In fact, businesses stand to realize the most benefits in cost savings, ease of use and increased security by combining physical and logical access control onto one platform. Instead of adding technological and management complexities by having separate access control systems for physical facilities and electronic data, it makes the most sense to combine the two for higher assurance, cost savings, efficiency and ease of use. Since more than one access application can be carried on a single Smart Card, employees can use one card to access physical and logical resources without carrying multiple credentials. From the doorways to the desktops, one convenient solution provides the secure identity management, strong authentication and access control necessary to safeguard both physical and intellectual assets. Combining physical and logical access builds an infrastructure of increased trust. Deploying Smart Cards to employees, partners and other key individuals is a proactive enterprise approach to higher assurance.

Cost: Smart Cards provide significant ROI in terms of both cost savings and increased security, supporting system components can be networked, allowing separate functional areas in an organisation to exchange and coordinate information automatically and in real time around the world. For organisations that already have Smart Card-based physical access in place, they can simply expand card use to protect network resources and benefit from an easily scalable solution. Legacy systems, including physical access system components, can be leveraged for investment protection while providing increased security for logical access. Enterprises can also reduce their IT support costs with the implementation of Smart Cards. Although the perceived low cost of user names and passwords may have contributed to their popularity, the real expense occurs on the back end with support and password management costs.

Considering the ramifications of unauthorized access to data, it is concerning that most enterprises are still only using user names and passwords for logical access control. A specific user name and password is created for each user, and for each application that he or she requires access to. This creates two major problems. First, user names and passwords are the lowest form of authentication that exists. They are easily compromised - often written down and easy to share with others - and therefore do not provide the high level of assurance necessary to protect critical data. Secondly, passwords are a headache for both users and IT staff. Employees have so many passwords that they invariably forget them and have to call the help desk to either remember or reset them. This drains valuable IT time and resources, resulting in lost productivity and higher support costs for the organisation.



TECHNOLOGY



How much does it cost? The pricing of corporate ID cards depends on the complexity of the environments they are deployed in. \$80 per user is a reasonable estimate for introducing Smart Cards for network security. This includes the cost of cards, readers and software (middleware) for the client PC. The cryptographic contact Smart Cards (64KB) cost around \$10 each depending on volume. Add another \$5-7 for the physical access chip to the card price, resulting ~ \$16 per card. The middleware ranges from \$10-\$20 per seat depending on features and volume discount.

The PC card reader pricing depends on whether USB (\$20) or PCMCIA (\$50) interface is used. Add to all this the integration, deployment and testing, the price tag could easily go beyond \$80 per user. In addition to the network access infrastructure, door readers also need to be deployed or upgraded. The cost of such deployment ranges from \$2500 - \$5000 per door, depending on location, wiring and construction required. When upgrading the door readers.

Ease of use is another compelling argument for combining physical and logical access on a single platform. Users will not have to carry multiple credentials and they will not have to remember multiple passwords or PINs to access applications and data. Instead, they will have one Smart Card that they can use for everything. Smart Card-based physical and logical access control provides a superior foundation for secure identity management. Enterprises can protect their assets and employees' personal information, while addressing regulatory requirements and reducing potential liability. As it stands today, Smart Cards are the most viable way to bring security out to the edge of the enterprise.

Athena Smartcard Solutions, a developer, marketer, and integrator of enterprise security solution based on Smart Card technology, unveiled an integrated enterprise security solutions that combines protection for physical premises and logical data access. Athena's new technology initiative tightly links physical and logical enterprise security with existing network directory systems, enabling faster and lower-cost deployment, easier management and decreased administration requirements. Athena's solution is designed to enable a rapid and low-cost enterprise deployment by eliminating the need to spend time and money on separate systems or their on-site integration. Combining physical and logical access management with existing enterprise directory services can also dramatically ease IT management.

This article continues in the next edition of Smart Card News

Events Diary

January 2005

- 12 - 14 Omnicard 2005 - Berlin, Germany - www.omnicard.de
- 24 - 25 Computer and Internet Crime (CIC) Conference & Exhibition - London - www.cic-exhibition.com
- 26 - 27 The International Digital Passport & Border Control Fair - Sweden - www.smarticware.com
- 26 - 27 Security Printing & Alternative Solutions in Russia - Moscow, Russia
- 27 - 28 SmartCards & Payments Europe - Barcelona, Spain

February 2005

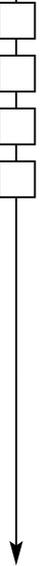
- 14 - 16 GSM World Congress - Cannes, France - <http://www.3gsmworldcongress.com>
- 14 - 18 RSA - San Francisco, USA
- 18 - 19 GSM India 2005 - Goa, India
- 22 - 23 Bankcard Sector 2005 - Budapest, Hungary

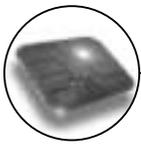
March 2005

- 10 - 16 CeBIT - Hanover

April 2005

- 11 - 13 The 3rd Middle East & Africa Card Technology Exhibition & Conference - Cairo International Convention Center, Cairo, Egypt
- 19 - 20 SIM 2005 - Amsterdam





Biometric Britian - Halt Who Goes There!

By Jason Smith, Production Editor, Smart Card News Limited



Jason Smith

During the second world war British citizens had to carry identification documents around with them everywhere, but this system was soon abolished after the war ended. Since that date citizens have been able to walk the streets without the need to verify identities in everyday transactions. However times are changing - in Queen Elizabeth II's most recent speech to the UK nation the Queen outlined that the Identity Cards Bill is being passed through the UK parliament to make identification cards compulsory for UK citizens and these cards will be issued within the next four years. The Queen then went on to say that a full roll-out should be in place by 2012.

The new proposed identification card will aim to help in the fight against terrorism, illegal working, illegal immigration and identity fraud. The system will also prevent foreigners claiming benefits or using free services like the National Health Service (NHS). The UK Home Secretary, David Blunkett said "Our plans to bring in a national ID card scheme lie at the heart of our work to ensure that the UK can meet the challenges of a changing world. Biometric ID cards will provide a simple and secure means of verifying identity. Together with electronic border controls they will help us tackle illegal migration and working, organised crime, terrorist activity, identity theft, and fraudulent access to public services, as well as helping our citizens travel freely and complete everyday transactions securely and easily. I am pleased that the Home Affairs Committee accepted the clear and convincing case in favour of a national ID card scheme."

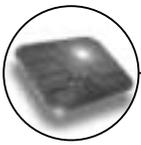
Results of the Government's own consultation scheme revealed that 48% of people opposed the ID cards scheme, while only 31% were in favour. Most people in government focus groups said they would prefer the scheme to be funded out of general taxation rather than by separate fees for each card. The actual cost of introducing identity cards was originally estimated 2 years ago to be around £3bn, excluding the cost of scanners to read the cards and the charges to individuals for their own ID. However the UK Financial Times Newspaper has reported that the Home Office now estimates the scheme will cost £5.5bn over 10 years, according to the cost-benefit analysis issued with the ID cards bill.

"Across the world, the international community is demanding more secure identity in travel documents - including the USA, where visitors will need a biometric passport or visa by October 2005. In a fast-changing world, a national identity card scheme based on secure biometrics will ensure the UK remains at the forefront of these developments and UK citizens retain the freedom to travel easily." Stated Blunkett. The identity cards scheme will build on ongoing work to make passports more secure by including biometrics. The ID cards will be embedded with a microprocessor chip which will store biometric information such as fingerprint, face dimensions and the iris of the eye.

The proposed Identity Cards Bill will cover areas such as the statutory purposes of the scheme, the establishment of a National Identity Register, it will ensure checks can be made against other databases to confirm an applicant's identity and guard against fraud. The bill will also create a new criminal offence if a person is in possession of false identity documents, including genuine documents that have been improperly obtained or relate to someone else and it will be an offence to tamper with the National Identity. A National Identity Scheme Commissioner will be established by the new Bill to have oversight of the whole scheme, including provision of information from the National Identity Register.

It will also establish a new executive agency set up to issue these new identity cards and will incorporate the functions of the United Kingdom Passport Service and work closely with the Home Office's Immigration and Nationality Directorate. From 2007, everyone who wants a new or renewed UK passport will have to pay extra for a biometric ID card. Current government estimates say the cost of a passport will rise 102% to £85 from £42 to pay for the process of harvesting biometrics from millions of UK citizens. Applying for a passport without an ID card will not be allowed.





One big concern is the obvious raise in the overall cost of the scheme which have raised major doubts about the cost-effectiveness of the cards introduction. The UK Prime Minister Tony Blair has stated that the new identity card scheme will not provide a "silver bullet" to defeat terrorism. But he said they would help to fight organised crime, benefit fraud and illegal immigration. Mr Blunkett backs this up by saying "The national identity cards scheme will give people confidence, convenience and security in an increasingly vital aspect of modern life - proving and protecting their identity. It will help tackle the activities of organised criminals and terrorists who depend on the use of multiple identities - identity cards will be a key part of the Government's wide-ranging programme for tackling organised crime, at the centre of which will be the new Serious Organised Crime Agency. Identity cards will also help in the fight against illegal working and immigration and ensure public services are only used by those entitled to them".

Another concern is the size of the computer database, which will have to be created to store details on all 60 million UK citizens. This database combined with the Biometric identifiers on the purposed cards will enable people's identity to be accurately verified and will prevent fraud and attempts to register multiple identities. However there is strong feelings that this database could be abused by police, spies or bureaucrats creating a major invasion of privacy and a step towards a totalitarian police state. However Mr Blunkett has insisted the government will take adequate safeguards to prevent abuse of the ID system. The Liberal Democrats home affairs spokesman Mark Oaten said about this new scheme: "This will make the mess-up with the Child Support Agency look like a tea party. I don't think we have the technology to do it." Overall the scheme is still seen as controversial and has had opposition members of Parliament shifting in their seats. Former Shadow Home Secretary Lord Hattersley, a Laborite, has stated that the ID card plan went "too much in the direction of authoritarianism and too little in that of civil liberties," and Liberal Democrat leader Charles Kennedy, accused the government of trying to win votes by stirring fears of terrorism.

But whether the UK likes it or not, with the endorsement of both the Queen and the current Prime Minister, the system should be in place throughout the UK by 2012. The only thing that isn't certain at present is the type of biometric to be used on the card, but facial, fingerprints and iris are the favourites. In time who knows what else will go on the card as the biometric ID card will have the capacity to hold a wider range of personal data, maybe even our very own DNA.

New Modern Irish Passport System

The new Irish passport has been launched. This follows the successful, on time completion of a 23-month project by BearingPoint for the complete modernisation of the systems and processes for managing passport applications in the Government of Ireland's Department of Foreign Affairs. The passport incorporates technology to provide advanced security, including a polycarbonate datapage featuring laser engraved and perforated images of the holder's photograph and signature, giving Ireland one of the most modern and secure passports in the world. The Irish Government will shortly discuss the introduction of biometrics to this new passport to enable it to meet requirements of U.S. and emerging EU legislation.

The US\$23.9m project, awarded to BearingPoint in January 2003, required the company to assemble and manage an international consortium of leading companies with strong track records in passport systems around the world. It demanded an advanced level of expertise in redesigning, manufacturing, and the ongoing supply of high security passport booklets.





R2R - an Open Standard Technology



By Bruno Charrat, Chief Technology Officer, INSIDE Contactless



Bruno Charrat

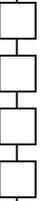
Today there is a growing trend amongst the major Smart Card players and market leaders, in the perception of RF 13.56MHz contactless technology as a promising replacement to other Smart Card technologies such as contact cards and older RF technologies such as 125 KHz systems. This is already widely the case in the access control and mass transit markets, with E- payment and ID document markets following the same trend.

Ten years after the launch of the first mass deployment, contactless chips are used on a daily basis by hundreds of millions of people around the world. Each year more than 200 million contactless chips are produced by IC manufacturers like INSIDE Contactless. The quick acceptance of contactless technology by consumers is due to its indisputable benefits over other technologies. The main advantages are: convenience, speed, a packaging offer adapted to various needs of form factors, and easy integration in the host system, not limited by mechanical or design problems. INSIDE has developed R2R technology (Reader-to-Reader) with the vision of bringing the benefits of the RF13.56 MHz RF technology to consumer electronics. R2R technology was developed by INSIDE in 2000. INSIDE's first R2R application integrated the R2R feature in a PDA for vending machine maintenance operators. The RFID enabled PDA allowed a maintenance operator to update the vending machine with new prices, and to download the transaction logs from it.

The R2R feature allows devices to behave both as a reader and as a card. An R2R device can receive commands from any standard proximity contactless reader and send back responses in the same way as a contactless Smart Card would. Using this feature a consumer electronics device can interact with the millions of readers already installed worldwide, to exchange data or to perform secure transactions, using different access protocols, including ISO 14443 A & B, ISO 15693, as well as FeliCa protocols. R2R is not a new standard, but is an enhancement of the existing international standards ISO/IEC 14443 (proximity) and 15693 (vicinity). R2R also includes the capabilities of the recently announced NFC (Near Field Communication) technology from Philips, with the advantage that it is compatible with the existing installed base of RFID readers. This positions R2R as a superset and an open standard alternative to the NFC.

The NFC Technology limitations: Philips's NFC technology includes only one existing ISO international standard, ISO 14443-A, as well as the FeliCa standard. As an example, NFC is not compatible with the ISO 15693 based infrastructure, widely adopted by the Access Control industry and the electronic-Tagging industry. The Philips's NFC introduces a new mode of communication, called "Active mode", which is not compatible with any of the existing installed base of RFID readers. R2R offers key advantages. It allows interoperability with all RF 13.56MHz readers and transponders compatible with the existing international standards, including ISO 14443 A & B, ISO 15693, as well as FeliCa. It offers higher baud rates, up to 847 Kbits/s. It is exclusively based on open, existing, international standard communication technology. Thus it doesn't require costly, time consuming standardization efforts, reduces deployment risks, and accelerates customer time to market deployment.

PicoRead is the INSIDE's answer to the fast growing demand for an RF 13.56 Mhz interface in large scale applications where power and space for integration are limited. PicoRead was specifically designed to address the needs of OEMs in consumer electronics and equipments where large reader volumes require small, low-cost footprints. Its low power consumption, and automatic card detection feature in stand-by mode were specifically designed for its integration in battery operated electronic devices. PicoRead is compliant with ISO 14443 A/B, ISO 15693 and FeliCa, and features the new R2R technology.





ID Card, Anyone?

By Peter Tomlinson, Iosis, Independant Consultants



Peter Tomlinson

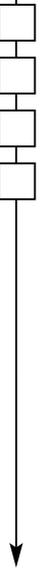
As I write this, a third of the way through December, there is a pregnant pause on the High Street. Reports are that the surge in Christmas spending has not yet hit. Will it arrive this coming weekend? Already the instant print shops have been kept busy with requests to print Christmas cards, party menus, and special orders of service for the churches. Friends are going to office parties and worrying that some important contact might have been left off the business Christmas card list, and there is a general lightening of spirit about. Or is it relief that for a little while we can leave off worrying about a coming year that is going to be difficult for many, with so many changes coming over the horizon?

There is a pregnant pause in the electronic ID corner as well. Passports with biometrics are a done deal, with the European Commission now adding its latest draft Regulation to the pile, despite the European Parliament's misgivings. But will those EU passports contain chips? It aint necessarily so, according to the EU text: the draft Regulation refers to ICAO document 9303, but there the chip related information is still in draft form, not to my knowledge ratified. We should not worry: the Regulation will not apply in the UK and Ireland, since we and our neighbours in the emerald isle only "take part in some of the provisions of the Schengen acquis"; we just follow the Yanks.

This note is not about the rights or wrongs of an ID card. Instead it looks at the clash between electronic ID information as a way of supplementing traditional methods, and eID on its own across the internet. Crossing that is something else: ID information (and other personal information) that we voluntarily use in the maelstrom of life, contrasted with the increasing demand from the centre: "show me your ID". Recently I visited my solicitor - not a regular occurrence, but I have used them for many years. This time I was apologetically asked to bring some ID, as under new regulations they have to register me. My passport would do. How much do fake passports cost, if you know the right people? The young solicitor that I saw had not met me before, although we had talked on the phone, and another solicitor in the same firm (someone who had met me) had asked this young man to advise me. The young man took a photocopy of the passport's picture page; I wonder what they did with that copy?

Identity is for continuity (David Birch, Consult Hyperion). Most of us use just the one identity (except perhaps when posting trivia to the internet), so some way of helping with automatically filling in forms that want often complex ID and other personal information has long been thought to be a good thing. Indeed personal information does turn out to be quite complex for significant numbers of people - think of the twice married ladies who thereby have three surnames available, and the married couple for whom nitpicking bureaucracy (even commercially) might say that one of them ordered something, so only that one can sign for it. For doing the form filling on a PC there is an EC-funded specification for a smart card application that could help if only someone would develop browser and word processing software to support it.

We have no clarity yet about the proposed UK ID card's specification, but the ICAO electronic passport documents are quite clear: the chip data about to be embedded in passports is only there to supplement today's visible data. That is a whole dimension or three away from the use of eID in cyberspace, where all that you use is the chip data. EU policy is for the widespread deployment of Information and Communications Technology, and that means deployed for you, in your home and office: there you should be able to use your ID card (and it ought to carry the eURI application as well, so that you can organise lots more data yourself). Even when asking questions in serious places, we still cannot get any assurance that the proposed UK ID card will be useful for us: its for central admin ("them") only. The EC, we hear, may have something to say about that as a New Year present. But that is for the future: Merry Christmas, and, in a parody of Dave Allen, may your religious proclivity go with you!





Public Transport: Joining it up

By Patsy Everett, Managing Director, Smart Card News Limited



Patsy Everett

This was the theme of the 4th. "Moving On" conference held in Liverpool and hosted by Merseytravel. Set in the beautiful historic town hall some 150 delegates and 25 exhibitors enjoyed a full conference program covering public safety and security on the nations public transport system to accessibility planning and social exclusion. There were site visits to the Mersey tunnel control room and the City Safe control room with a very enjoyable conference dinner in the evening with a retired prison governor as guest after dinner speaker.

Merseytravel, the host organisation had a number of announcements to make. Firstly the development of an "Essential Liverpool" Smart Card with Live'smart that is ITSO accredited. The card can be purchased by visitors to the area and will combine transport and entrance to key attractions. They also announced a joint venture with Ecebs to develop a software based security access module to allow remote and secure e-commerce to be applied to integrated transport ticketing. They also announced a major ticket project to place a chip into paper based tickets allowing access through ITSO compatible gates on Merseyrail and as a flash pass on the bus network.



Almex, the trading name for the German company Höft & Wessel demonstrated how their Almex.Optima could read ITSO cards pointing out that this was the basis for the Nowcard and Cheshire schemes to be implemented in 2005. ACT demonstrated how their HOPS product platform was interoperable with ITSO accredited Smart Cards and Smart Card platforms from other ITSO 12F members.

ASK SA pointed out that there were more than 50 million of their products currently in the field in over 100 cities worldwide and that their product complied with main ISO and regional standards. Atos Origin who have annual revenues of more than EUR 5 billion and employ's 45,000 people in 50 countries introduced me to their Transport Direct, a fascinating concept of journey planning, giving alternative options such as walking or taking a bus, train, taxi, underground, air, ferry or even the car. It allows you to plan integrated transport journeys from over 30 million places in England, Scotland and Wales.

BemroseBooth Ltd. offer the mass transit market smart tickets and perform bureau and personalisation services. They have a turnover in excess of £60 million and employ 800 people. Burall InfoSmart, a founder member of ITSO and a member of the Transport Card Forum was showing off their PersonIQ personalisation system which is currently undergoing ITSO certification. InfoSmart supply many bus operators with Mifare contactless Smart Cards. Cityspace had their I+Travel Service station on display, a solution for "out of home" access to digital services.

Cubic Transportation Systems had a stand displaying their wares, they have a world-wide customer base of 40 major markets on 5 continents, they have 45 million passengers daily with revenues collected daily of £21 million, £1.7 billion worth of contracts and 1400 employees. They were the first in 1989 to introduce a read/write contactless Smart Card. ESP have recently passed the first phase of ITSO accreditation of their systems.

ICA Traffic of Germany were showing their dual purpose ticket vending systems for paper ticket and contactless Smart Cards. Innovision Research & Technology are into RFID solutions for the transport sector. Their Jewel product is a small, low cost contactless chip compatible with ISO 14443A and ITSO v2.1. Magnadata were issuing ITSO approved 4K cards for demonstration at the show. PCL were there, they have worked with Local Authorities and Passenger Transport Executives in the area of concessionary travel.





The Post Office presented their Post Office paystation, a new payment services terminal designed to accept smart transactions at Post Office branches. The terminal will allow customers to charge their utility keys and pay for transit and mobile phone top-ups. The service is due to be launched next year with 5000 access points usually situated on the retail counter to take advantage of the longer hours of opening.

Region Services (RSL) were exhibiting their Electronic Information Display systems and Touchscreen Kiosks. These can even be located within windows and be totally bespoke to suit the site. Unicard were demonstrating their ITSO Smart Card scheme management system. Unicard are involved with the SmartCities scheme in Southampton.

The next get together will be in 2006.

I did not make the site visits which was a shame as they sounded just up my street. The Mersey Tunnel provides a link between Liverpool and the Wirral. The Liverpool and Birkenhead Tunnel (Queensway) was opened in 1934. The Liverpool to Wallasey Tunnel (Kingsway) which was built as two tunnels, the first of which was opened in 1971 and the second in 1974 carry on average over 500,000 vehicles a week. The delegates got to see the main ventilation shaft which is Art Deco.



They then went on an integrated services tour to look at the Merseyrail station gating scheme, the refurbished rolling stock programme, bus station improvements and the proposed route for the European Clean Accessible Transport for Community Health (CATCH) initiative. After that they were able to visit the City Safe control room which is a collaboration between Merseytravel, Merseyside Police and Liverpool City Council for 24 hour CCTV coverage of the whole city centre. They then went on to visit the Arriva Bus Garage to view the latest developments in on-bus CCTV.



**Merry Christmas and a
Happy New Year**

From the team at Smart Card News

