

# Smart Card News

Smart Cards and Biometrics in Government • Finance • Health • Telecoms • Entertainment

www.smartcardgroup.com



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www.scotcomms.co.uk

### ScotComms

This website uses flash in a very effective way. The opening screen of the website is a quick flash animation showing the corporate logo before opening the main homepage. The content of the site has a good mix of both graphical and text based content and the information is kept at a minimal level. Additional information about their products and services are provided by a useful range of downloads which the website has to offer. The navigational bar is also flash enhanced and provides a very effective tool for accessing the sites information quickly and efficiently. Overall I think the site is well designed and laid out for ease of use.

- Navigation
- Content
- Appearance



www.buypass.no

### Buypass

The Buypass homepage is very visually stimulating using white with pastel blues and the frontpage graphic of a hand holding a Smart Card, where information appears is, very novel. The website comes in two different languages; English and Norwegian. To get around the site, there are two different navigational bars on the homepage. The main navigational bar at the top of the screen, breaks down into sections for ease of use. The websites content is basic and the information is kept relevant. The website features a fun and enjoyable flash video demonstration showing some of the uses Buypass can be used for. However some of the pages on this site are still under-construction. Overall the site is nicely designed but lacks real informative information.

- Navigation
- Content
- Appearance



www.cebit.de

### CeBIT

To access most of this website information involves having to register as a user. As a publication, Smart Card News was able to access this site, which allowed us access to a range of press releases from the show, photographs and presentation material. A majority of the website is heavily text based and the site only fills up around half of its potential screen space making the information look cramped. Visually the site is very bland with just black text on a white background and very little if any graphical content on a majority of the pages. The navigation around the site is fairly simple but the site has no real structure to its information and the text is small and hard on the eye. Overall the site is top heavy on content and in terms of user friendliness and appearance the website lets itself down.

- Navigation
- Content
- Appearance



# New Striking Partnership Gives Smart Cards a Sporting Chance



Scotcomms, the business behind TeamCard the UK's leading football membership card management systems, has teamed up with Ingenico, a UK supplier of retail point of sale technology, to create a joint venture to develop and roll out Citizen Card programmes to local Government authorities across the United Kingdom from the beginning of 2004. The launch of the UK Government's National Smart Card Project and, in Scotland, The Scottish Citizens Access Consortium, last Spring turned the UK local government sector into a £5 million market overnight for the Smart Card industry. The new partnership, which allows Ingenico to incorporate the TownCard system into its e-government offering, is expected to kick start a £1 million plus new business line for the two companies. Initial feasibility studies carried out for TownCard have already identified over 50 councils in Scotland and England ready to deploy civic Smart Card programmes. Ingenico's John Hutchinson said: "The Government's renewed commitment to Smart Cards has produced a tidal wave of pilot projects all over the country. The ones that are braving the storm best are those which demonstrate clear commercial benefits for the citizens being asked to use them. While ID or security features may be mission critical for the government authorities which will issue cards, these features hold far less appeal to citizens."

"A chilling example of the benefits of why a Smart Card scheme is needed, has been shown by the alleged suicide attack that targeted Manchester United's football stadium on the 19th April 2004. This threat confirmed the need for tighter and better monitoring of fans entering the grounds. An ID scheme in general for both our towns and our local football teams should be the way forward for our overall safety", said Jason Smith of Smart Card News. "The hardest part of any Smart Card scheme is achieving the critical mass that makes a project cost effective. Our programmes do this by providing compelling reasons for card holders to use their cards every day. The library or sports club membership becomes the privilege card for the area's best local booksellers or sports stores. Local authorities can reward citizens with special parking benefits when they choose the High Street over the out of town mall and local retailers. TownCard bonds the needs of local commerce, government and people to create a card scheme that delivers direct benefits for the user and the community they live in. It's the kind of joined up approach to government we keep reading about. We've proven the commercial viability of Smart Cards in football. Now we're going to do the same for local government," says Scotcomms' Randal McLister.

Originally developed for the Shetland Islands in 1999, TownCard is the UK's longest running and most successful civic Smart Card programme, which recently reached a major milestone after it issued its 20 millionth reward point. Carried and used by over 50 % of the islands 22, 000 residents, Shetland Smart Card has generated over £19 million for the islands economy. Winner of the Smart Card industry's best loyalty project in 2002, Shetland Smart Card has been monitored closely by government and business institutions keen to introduce user friendly card programmes into the community.

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Telephone : + 44 (0) 1903 691 779 • Fax : + 44 (0) 1903 692 616 • General Enquiries : [info@smartcard.co.uk](mailto:info@smartcard.co.uk) ISSN 0967 196X

Managing Director Patsy Everett ~ [patsy.everett@smartcard.co.uk](mailto:patsy.everett@smartcard.co.uk) • Production and News Editor Jason Smith ~ [jason.smith@smartcard.co.uk](mailto:jason.smith@smartcard.co.uk)  
• Technical Advisor Dr David B Everett

This Issue's Guest Contributors: Adrian Hobday • Gary Watts • "The Listener" • Nick Holland • Mike Parker • Janne Saarikko

Russian Agent : Alex Grizov Recon Company "Sport Hotel" 5th Floor Leninsky Prosp., 90/2 Moscow 117415 Russia  
Telephone : +007 095 131 92 92 • Facsimile : +007 095 131 92 65 • e-mail : [recon@ropnet.ru](mailto:recon@ropnet.ru)

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

Printed by DAP (Sussex) Ltd. Telephone : +44 (0) 1273 430430

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Lead Story



## Schlumberger Floats Axalto

In a bid to streamline its activities Schlumberger, the Franco-American oil services group, has announced its plans to float Axalto, the former Schlumberger Smart Cards & Terminals company, according to sources at Les Echos, The UK Financial Times's French sister newspaper. The value of Schlumberger's Smart Card Subsidiary is estimated to be around about 750 million euros (\$925m). In 2003, Axalto achieved a net profit of \$29 million on revenues of \$768m. Schlumberger initially planned to sell a vast majority of Axalto in the second half of 2003 but choose to wait for stock market conditions to improve. This floatation is planned for the end of June and will be issued on the pan-European Euronext.

## New Government Smart Card Handbook

The Smart Card Alliance commends the recently published Government Smart Card Handbook developed under the joint sponsorship of the General Services Administration Office of Government-wide Policy and the Smart Card Interagency Advisory Board (IAB). The Handbook is based on contributions from experts in government, industry and academia, and includes input and reviews by members of the Smart Card Alliance Leadership Council. The handbook is the result of government experience gained over the past several years with Smart Card programs that include many Smart Card implementations, pilots and projects conducted throughout the federal government. The purpose of this Handbook is to share lessons learned and to provide guidance to federal agencies contemplating the development and deployment of Smart Card based identity and credentialing systems.

## Gemplus Makes Board Changes

Gemplus International S.A., has announced that three new non-executive Directors will be proposed for election to its Board at the Company's Annual General Meeting on 27 April 2004. Kurt Hellstrom, 61, is the former President and Chief Executive Officer of Ericsson, a major telecommunications group, John Ormerod, 55, a Senior Partner in the UK practice of Deloitte, the accounting firm and Michel Akkermans, 44, an entrepreneur specialising in information technology for the banking industry.

These three non-executive directors are proposed to replace Ron Mackinstosh, Randy Christofferson and Thierry Dassault, who will not be proposed for re-election by the Board to shareholders.

## With Security, More than a Card

Under the slogan "Mit Sicherheit mehr als eine Karte" (With security, more than a card), ORGA Kartensysteme GmbH has launched its new high-security SECCOS solution. ORGA's Secure Chip Card Operating System, or SECCOS, is distinguished by its high security, providing as it does support for RSA encryption with up to 2048-bit keys. Short transaction times and process optimization for rapid Smart Card personalization create a high degree of acceptance among customers.

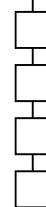
This multifunctional Smart Card platform is being certified by the ZKA, the German Central Credit Committee, is EMV-compatible and has been specifically tailored to the German banking market. Multifunctional Smart Cards such as SECCOS cards open up a wide range of new applications for card users. Apart from traditional payment applications (electronic cash and Germany's electronic purse GeldKarte), the card can offer, for example, an electronic signature function for legally binding business transactions, electronic tickets for local public transport and above all lots of space for customer-specific applications.

## 1.4 million using Oyster in London

1.4 million Oyster Smart Cards, part of London's Smart Card transport ticketing system, are now in circulation and are being used across London, UK, less than one year after the card was introduced to the public. This means that TranSys, the consortium behind the Smart Card system and whose principle partners are EDS (Electronic Data Systems) and CUBIC, are on target to achieve 3 million cards in use or circulation by the end of 2004. Currently over 2,000 customers each week are upgrading to Oyster, testament to the enthusiasm with which the card has been received.

## Axalto Delivers China's First SIMERA 128K SIM Card

Axalto, a Schlumberger company, has successfully delivered China's first Simera (Java) 128K SIM cards. China Mobile has appointed its Shanxi Mobile provin-



cial branch to be the first mobile carrier in China to commercially deploy Simera 128K cards provided by Axalto. Based on Java technology, this interoperable SIM card is designed to support advanced applications such as SuperPhonebook, SuperSMS, personal information management, games and information subscription. The Simera 128K card meets the increasing demand for SMS and other Value Added Services in the China market, as it can store more than hundred short messages and thousands of phone numbers, and allow users to backup phonebook entries.

## ORGA Restructuring Completed

ORGA Kartensysteme's restructuring process has been successfully completed. Management is certain that ORGA will achieve a return on sales of 10% and recapture the number 3 spot in the international Smart Card industry by 2007. Restructuring entered its crucial phase in 2004. "We are operating in a market characterised by falling prices and rising customer demands. That means that we have to keep on working hard to increase productivity and efficiency," says Juan Carlos Garcia the CEO of ORGA Kartensysteme. To enable this, ORGA has engaged with German Consulting Group.

## Faster, More Secure Contactless Transactions

On Track Innovations Ltd, (OTT) has teamed up with payment technology provider, Hypercom to deliver contactless electronic card payment programs that add convenience, speed check-out and increase security. The companies' combined technologies will help expand merchant and consumer use of contactless payment programs, such as MasterCard PayPass, at U.S. retail countertops. OTT's patented "matched-antenna" contactless technology coupled with Hypercom's industry-leading electronic payment terminals enable more reliable and secure communication.

## Smart Cards as a Marketing Tools

Axalto has been selected by major bank ING Belgium to provide Smart Cards for its MasterCard co-branded program. This contract results from Axalto's differentiated portfolio and reinforces the long-term proven relationship between ING and Axalto.

This program was initiated by MasterCard last November and launched in partnership with Sony PlayStation, aimed at reinforcing young customer loyalty with innovative credit cards. ING proposed a MasterCard credit card to students and professionally active customers in the 20-30 age bracket. The Smart Card features discount prices on PlayStation 2 consoles and games as well as a differentiated card body which makes it quite unique within the banking market today.

## OneSMART MasterCard Launched in NZ

MasterCard International has launched its OneSMART MasterCard programme in New Zealand, offering financial institutions a myriad of technological solutions for migration to EMV-compliant Smart Cards.

The first of its kind in Australasia, OneSMART MasterCard features, under one umbrella, all the technological solutions and support required for financial institutions to migrate to EMV-compliant cards and terminal solutions. All new Smart Card-capable EFT-POS terminals in New Zealand are required to be EMV-compliant by January 2006. After that, banks and retailers will be held liable if non-EMV terminals are used to process EMV cards.

The OneSMART MasterCard programme unveils a comprehensive list of New Zealand-based partners and technical experts who will provide their respective state of the art products and services to help financial institutions optimise and tailor their Smart Card programmes to meet the needs of their individual cardholders. These include ETSL, Cadmus and Security Plastics. These partners will provide support in five main categories - personalisation systems, Smart Cards, terminals, host systems and applications.

For more information visit ...



**MasterCard**

[www.mastercardintl.com](http://www.mastercardintl.com)

**Smart Card Alliance**

[www.smartcardalliance.org](http://www.smartcardalliance.org)

**Axalto**

[www.axalto.com](http://www.axalto.com)



## Strong Growth for Oberthur

Oberthur Card Systems sales for the full year 2003 amounted to 430.1 million euros, showing a 5.6% year-on-year increase. In 2003 Oberthur Card Systems delivered 127.8 million microprocessor cards, showing a 29% increase compared with the previous year, whereas the average selling prices declined by 11.1% at constant exchange rates.

Oberthur believe that the microprocessor card market will pursue its expansion in the coming years. After Europe, EMV payment cards will be extended to Asian & Latin American countries, therefore creating a huge renewal market. In the Mobile Communications market, chip-based solutions - SIM, USIM, R-UIM - are gaining ground on all continents. Identity & Security projects - still evolving - have a strong potential for growth.

During the fiscal year 2003, Oberthur Card Systems re-organized itself in order to better respond to its customers needs regardless of geographical location or market. Oberthur Card Systems also increased its capacity with the expansion of its Chinese embedding and personalization site for mobile communication cards in Shenzhen and strengthened its commercial presence in new countries such as Brazil, Hungary, Turkey, India and Thailand.

## New Solution to Mifare Security Problem

Recent market research has shown that there is considerable dissatisfaction within the security community about the potential for a breach in the security provided by Mifare readers. Virtually all current Mifare solutions combine an antenna and reader technology within a single unit.

The encrypted Mifare signal is detected by the antenna and then converted into legible data, after which it is sent to the controller of an access control system via a standard protocol such as Wiegand. Since the Mifare reader is located on the unsecured side of the door, this signal can be intercepted and copied relatively easily.

With the introduction of the new AP1007 Mifare reader (in the AEOS product range), Nedap offer's a solution that separates the antenna from the reader technology.

This makes it possible for the antenna to be placed on the unsecured side of the entrance, while the encoded signal is converted into legible data on the secured side. The antenna and the active reader unit can be placed up to 30 meters apart.

## HK's e-commerce Driven by Smart ID Cards

This month the Hongkong Post announced at a public briefing on the security features of e-Cert and its applications to facilitate on-line transactions, that the future of e-commerce in Hong Kong looks bright, with over 210,000 Smart ID Card holders already embedding Hongkong Post's e-Cert in their cards. The e-Cert creates an environment for conducting secure e-commerce, be it e-banking, on-line securities trading, shopping or betting. The e-Cert is a form of identity verification which is based on a users' digital signature rather than shared secret or password transmitted over the Internet to protect the on-line transactions from being tampered with, either deliberately or accidentally.

Li Shu-pui, Head of the Banking Development Department from the Hong Kong Monetary Authority (HKMA) stated "It is a worldwide trend that more and more banking transactions are conducted on-line, and Hong Kong is no exception. "Currently there are around 38 authorized institutions offering Internet banking services in Hong Kong.

At the end of 2003, there were around 2.2 million personal Internet banking accounts (compared with 1.6 million in 2002 or an increase of 37 percent) and 67,000 business Internet banking accounts (compared with 31,000 in 2002 or an increase of 116%), "In addition, the total numbers of financial transactions of personal and business Internet banking services increased encouragingly by 38% and 440% respectively during 2003."

## Consortium Develop New Smart Card

Sony Corp., Dai Nippon Printing Co., U.S. credit card company, Visa International, and German memory chip maker Infineon Technologies AG, have announced that they are planning to develop a new-generation Smart Card with the dual functions of contact and "contactless" integrated circuit (IC) card technologies. The card will be aimed at a range of financial service companies.



## Rapid Smart Card Increase in China

At the 7th International Fair of Smart Card China 2004 it was announced that the Chinese Smart Card market is developing rapidly, and increased by almost 40% last year. With the fastest growth in integrated circuit (IC) card applications, over 10 billion Smart Cards have been issued or sold within the country, with over 438 million cards issued by Chinese banks alone.

## US DoD Favours Fargo

Fargo Electronics, Inc., a provider of desktop plastic card personalisation systems, has confirmed that they are the ongoing supplier of card identity systems for the U.S. Department of Defense (DoD) "Common Access Card" Project. The DoD has informed Fargo that it has selected the company's High Definition Printing (HDP) as its platform of choice for deployable installations including shipboard, guard reserve and other mobile platforms.

The DoD has advised Fargo that it has chosen a competing manufacturer for land bases. Fargo expects to receive an initial order for 125 of its HDP systems for shipment in the second quarter of 2004 from Telos Corporation, a systems integrator on the project. The DoD and Telos have indicated that the total project will likely include several hundred more Fargo units than this initial order. Although the precise number and timing are unclear, all systems for this project are currently expected to ship in 2004.

## Biometric Smart ID Card Program

Precise Biometrics AB, a provider of biometric security solutions based on fingerprints, has received an order in conjunction with the Defence Multipurpose Card project in Italy. The order is part of a contract for smart ID cards awarded to the company's partner Siemens. Precise Biometrics will deliver combined fingerprint and Smart Card readers together with licenses for the company's technology for fingerprint matching on Smart Cards, Precise Match-on-Card, for a smart ID card program.

The smart ID cards, using the CardOS operating system and Public Key Infrastructure (PKI) developed by Siemens ICN EN SEC, will e.g. be used for securing desktop application with the Siemens Informatica developed product SecureAccess, in order to simplify access to the organization's networks.

The choice of a system that both stores and matches a fingerprint directly on the Smart Card increases the security and protects privacy in a wide deployment. The ID card program aims at total deployment of several hundred thousand smart ID cards, with fingerprint as the selected authentication method of the cardholder. The deployment of the first Smart Cards with Precise Match-on-Card technology started during the first quarter of 2004.

## China Releases Electronic ID Cards

Electronic ID cards have started to be distributed throughout China. Xinhua News Agency, the state and worldwide news agency in China, reported that, "Within the first half of this year, 200,000 residents of Shanghai's Jiading and Chongming districts will be issued with new ID cards.

After that, the new cards will be distributed throughout the city, according to Zheng Shanhe, the deputy director of the Shanghai Public Security Bureau. Zheng said that by the end of 2008, the cards will be in use nationwide."

## If You are Ordinary You have to Wait

The first batch of smart ID cards were handed out this month to citizens in Thailand. Although 2000 people queued for the cards only 300 managed to get hold of one, according to the Nation Multimedia Group. 5000 cards were issued at an exhibition held to mark Civil Servants day, but most of the cards were issued to politicians, senior bureaucrats, media professionals and celebrities

For more information visit ...



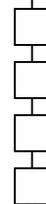
**Sony Corporation**  
[www.sony.net](http://www.sony.net)

**Fargo**  
[www.fargo.com](http://www.fargo.com)

**Precise Biometrics**  
[www.precisebiometrics.com](http://www.precisebiometrics.com)

**SCM Microsystems**  
[www.scmmicro.com](http://www.scmmicro.com)

**Norsk Tipping**  
[www.norsk-tipping.no](http://www.norsk-tipping.no)



## SCM Launches myEMV Reader

SCM Microsystems, Inc., has announced myEMV, a two-factor authenticator designed for use with EMV bank Smart Cards and the MasterCard Chip Authentication Program (CAP). SCM will market the terminals to banks and their systems integrators in countries migrating to EMV. myEMV is a battery operated Smart Card reading device with a display and keypad for entering PIN codes. It is only slightly larger than a credit card, with a highly stylized design featuring an oval shape and perimeter key placement.

The device generates a One Time Password or Transaction Authentication Number for the authentication of online transactions such as e-commerce or e-banking. When a smart bankcard is inserted, the cardholder is prompted to enter his or her PIN.

The reader then generates the one-time transaction authentication code, which the cardholder enters when making an online purchase using a standard Internet browser. The authentication data is transferred across the network and validated by the issuer, providing a type of "card-present" verification method for online transactions.

## 2.1 Million MULTOS Cards for Norwegian Lottery

Norsk Tipping AS (The Norwegian National Lottery) signed a contract with Buypass AS for the provision of MULTOS multi-application Smart Cards to all of Norsk Tipping's 2.1 million customers.

The cards will replace the existing gaming cards issued by Norsk Tipping. Close to 100,000 users already use Buypass Smart Cards for secure payment and secure identification on the Internet and in other sales channels. In the course of 2005 all of Norsk Tipping's gaming cards will be replaced by a Buypass Smart Card.

The new card represents a major contribution to Norsk Tipping's security solutions, and provides the basis for further development of the company's service offering. With the issue of the gaming cards, a large percentage of the adult population of Norway will be provided with a Smart Card containing an electronic ID, which may be used for secure identification and secure payment of goods and services in electronic channels.

The infrastructure will be made available to providers other than Norsk Tipping as well, and the project thereby constitutes the establishment of a national e-commerce infrastructure. The deal between Norsk Tipping and Buypass has a value of \$8.26 million.

## Komerčni Banka Issues Gemplus EMV Cards

The Komerčni Banka, part of the Société Générale Group and one of the leading banks in the Czech republic, is issuing mass volumes of GEMPLUS EMV multi-application cards. As one of the first banks in Central & Eastern Europe (CEE), Komerčni Banka is paving the way for issuing both EMV Maestro and VISA cards. The project between Komerčni Banka and Gemplus is an outcome of a two years cooperation in other Smart Card projects, such as Guaranteed Payment with major retail chains & channel authentication, whilst modelling and designing an EMV migration plan to reflect the long term business plans, market opportunities and customer expectations of Komerčni banka.

Gemplus has provided Smart Cards, consulting services, a turnkey personalization solution (GemSense) and a set of applications ranging from Micro-Payments to Authentication and Loyalty. From the beginning, the new cards supported not only the EMV payment functions, but were also designed and issued as multifunctional cards to support different kinds of applications. Depending on the needs of specific customer groups of Komerčni Banka, individual applications with customer-specific functions can be activated any time after the card is issued to the customer.

## RFID Adoption will Surge in 2004

Analyst's Packaging Strategies and IT consultants Cap Gemini Ernst & Young (CGE&Y) have found that the global packaging industry is bracing itself for the rapid adoption of Radio Frequency Identification (RFID). According to a Packaging Strategies/CGE&Y pulse survey of 275 participants attending the 17th annual Packaging Strategies Summit, more than half (54%) of those surveyed believed that Wal-Mart's 2005 supplier mandate will be a "catalyst" for the evolution of RFID adoption in the industry, compared to less than one in six (15%) who feel it is "overrated."



In addition, more than half of respondents (51%) believe RFID is "a major business driver this year" or are initiating a program and action plan in 2004.

The survey also found that while more than half of respondents (58%) agree that retail will be the most effected by the first wave of RFID adoption by 2010, nearly one-third (31%) believe that the health & pharmaceutical industries will be transformed by RFID leading to improved security for prescription drugs and reduced shrink/grey market losses. Not surprisingly, half of all respondents (50%) believe that globalisation and off-shoring will be the 2004 business imperative that will have the greatest impact on the future of packaging strategies during the next 3 years.

"The survey illustrates that global as well as local supply chains are heeding the wake-up call to prepare for RFID by taking it one step at a time, from insight to pilot to roadmap to implementation to deployment," said Greg Cudahy, global supply chain leader for Cap Gemini Ernst & Young. "Those suppliers who go 'beyond compliance' mandates can gain the benefits of new enabling technologies such as RFID, mobility and in-store customer interaction solutions and change the game." he said.

### **3M Unveils Organic Chips for RFID Applications**

At the Smart Labels conference in Boston, USA, Dr. Paul Baude, who is heading the Pentacene radio frequency identification (RFID) program at 3M, presented a paper unveiling 3M's progress in creating organic semiconductor chips that could pave the way for mass production of low-cost RFID tags.

With major retailers having indicated they will soon require RFID tags to replace bar codes as a more efficient means of tracking and controlling inventory, lower-cost non-silicon-based integrated circuits could significantly reduce the financial burden this change would impose on companies that supply products to retailers. Plastic-based chips may provide a solution, if they can be engineered to achieve the required level of performance

### **Biometric Pilot For Texas Medicaid Program**

Atos Origin have been selected to conduct a pilot program, the Medicaid Integrity Project, in Tarrant County, Texas, USA.

The biometric and Smart Card solution involves the issuing of 30,000 Smart Cards to Medicaid recipients seeking services with 150 health care providers.

"The goal of the pilot program is to facilitate a transition to a technology-based means of preventing Medicaid fraud, abuse and waste while maintaining the quality of services provided to Medicaid beneficiaries. A secondary, and equally important objective is to establish a platform that will permit the consolidation of state program eligibility credentials on to a single ID card," stated Aurora F. LeBrun, director, Office of Eligibility Services, Texas Health and Human Services Commission.

"This pilot is an initiative designed by the State of Texas to determine if Smart Card-based biometric authentication technology is ready for state government use, and to determine which of the technologies available provide the best recipient and health-care-provider experience."

This solution is based on the Cyberflex 64K Java card platform and Precise Match-on-Card fingerprint and Smart Card technology from Precise Biometrics. Each recipient will have two finger image templates enrolled and saved to the Smart Card.

Using a process called Precise Match-on-Card, the template will be used solely to authenticate the card-holding recipient by comparing the immediate scan of the recipient's finger with the template on the card. Precise Match-on-Card is secure and beneficial; secure because it does not rely on either a network or a database of images; beneficial due to the speed of authentication that is less than one second.

In a straightforward compare process, the recipient places the appropriate finger on a scanner at the time of checking in with their health care provider, and the Atos Origin solution immediately verifies that the scanned finger image belongs to the individual enrolled on the Smart Card. This process is self-contained and neither the scanned finger image nor the template is transmitted across a network or saved to a database, thus eliminating any opportunity of interception or abuse



# The Smart Way Forward for Public Transport

By Adrian Hobday, Director of Business Development, ITNET



*Adrian Hobday*

Today, any organisation involved in the Government's modernising agenda will have to consider development of a Smart Card strategy in order to meet the policies on integrated transport, e-government and social inclusion. Indeed, today's transport Smart Card is tomorrow's citizen card. The biggest scheme in operation in the UK at present is the Oyster card, which was partially implemented across London this year. However, Oyster is by no means the first scheme of its kind in the country. Hertfordshire County Council and Three Rivers District Council have both used Smart Card schemes since 1998. The focus of these schemes is on concessionary travel for children, young people and OAPs. The schemes have been a success for the area with over 25,000 cards in use in Hertfordshire alone.

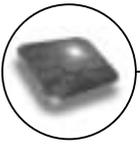
Hertfordshire is not alone in its adoption of Smart Cards as the intelligent future of transport. South Wales Integrated Fast Transit (SWIFT) and South West Wales Integrated Transport Consortium (SWITCH) have both introduced concessionary travel schemes and have over 205,000 Smart Cards currently in use. Similarly, working with Prepayment Cards Ltd (PCL), a leading supplier of Smart Card solutions, the Greater Manchester Public Transport Executive (GMPTE) is implementing one of the first ITSO (Integrated Transport Smart Card Organisation) accredited schemes that is due to go live in 2004. The scheme will unite over 40 different bus operators that work in Manchester. It involves equipping 3500 buses and distributing 600,000 Smart Cards, which means a quarter of Greater Manchester's population will have cards.

So why are more and more authorities turning to the Smart Card solution? Firstly, Smart Card schemes offer improved service delivery, efficiency and performance not just in transport, but also across the wider e-Government arena. What is more, they enable faster and more precise allocation of cash for operators and local authorities, while allowing quicker access to more accurate information. For example, instead of employing survey teams to collate data from 1% of journeys, Smart Card data can be used to give information about 100% of journeys. Using information from Smart Cards allows authorities and operators to apportion revenue in accordance with usage, basing decisions on comprehensive, accurate information. Adoption of Smart Card schemes is being helped by the reducing cost of the technology, which is set to fall even further as Smart Cards become more prevalent. So how can transport operators and local authorities looking to achieve these benefits ensure the successful implementation of Smart Cards? There are four vital components to the process: the infrastructure implementation process (getting the right hardware and software in place); card fulfilment process (authenticating identity and issuing cards); the customer management process; and the back office processes. Faced with running these complex systems, authorities are wise to consider outsourcing some of the processes to expert partners. By outsourcing, an organisation does not have to procure or build a supporting infrastructure or recruit the necessary skills to run it. Companies such as specialist IT services provider ITNET will manage the business processes and IT systems required to make it work. Outsourcing also allows organisations to efficiently upscale the scheme on demand with minimum organisational disruption.

By working with expert partners to successfully implement multi-application Smart Card schemes, the transport sector is asserting itself as the shining example of how to achieve integrated transport and e-government. Smart Cards have the power to improve the acceptance of public transport, offering improved services for more and more passengers, ultimately leading to increased usage.



[www.itnetplc.com](http://www.itnetplc.com)



# Smart Cards and the Role of Operator Companies

By Gary Watts, Managing Director, Applied Card Technologies



*Gary Watts*

There is a common perception that Smart Card technology is some sort of black art that only an expensive technical consultant can understand. This is far from true, smart card technology is now so mature it has entered our mainstream supply chains (e.g. The Compaq range of PCs are Smart Card ready and Windows2000 already includes Smart Card drivers) creating a diverse range of technology options and solution providers.

**Good Accessibility:** With the availability of compatible technology, the cost of supplying Smart Card technology to consumer markets has come down, making Smart Cards and associated systems an economically viable route forward for prospective purchasers. We only need to look at the UK to notice that more and more Smart Card schemes are beginning to emerge. These range from small regional or city card schemes (e.g. The Cornish Key or the Bracknell Forest Edge card) to large financial (Chip and PIN trials in Northampton) and transportation (London Transport Oyster Smart Card) schemes all driven by Smart Card technology. Of course not all smart card schemes are successful. The technical implementation and accompanying services need to be perfect. After all, it takes just a couple of bad experiences for the consumer to lose interest in using the card.

**Who cares if it's a Smart Card:** Ok, so lets accept that Smart Card technology is well proven, can be obtained at an acceptable cost from a good systems integrator and fits well into your business case - is that all you need to deploy and maintain a great Smart Card system? - if not what is the missing ingredient? Having designed and deployed Smart Card schemes for the past seven years, we have learned that despite all our enthusiasm for Smart Card technology, the consumer (or card holder) actually doesn't care about that gold spot on the card which makes it 'smart'. What the cardholder really cares about is what the card can deliver for him/her - this is what makes the difference and ultimately will determine the card scheme success or failure. Now as we know, Smart Cards can deliver a whole range of applications and benefits all residing on the Smart Card itself. For example, a Smart Card holder could have his/her electronic purse on the card together with a loyalty application of choice, a city visitor application and the leisure club entry ticket. Fantastic capability, but this is still not enough!

The future is 'operator companies' It would be safe to assume that if a cardholder does not know what the card can really do for him/her now and in the future he/she will simply not use it enough. It thus follows that good long term marketing and communication campaigns are an essential ingredient to sustain and evolve successful Smart Card schemes. However Smart Card technology in itself brings another challenging issue - they are able to do more than one thing (multi-functional) and hold multiple applications from multiple providers (multi-application). For example, the card loyalty application could be owned by one company, the e-purse application by another and the concessionary transport ticket owned by the local transport operator. So what does the card holder do when his/her card doesn't appear to work? Find out what application isn't working then find the number of the application owner and complain? - Absolutely not.

For most modern Smart Card schemes using 'real' multi-application Smart Card technology there is a growing need for 'scheme operating' companies tasked with owning, managing and communicating with the card holder. It is these organisations that the cardholder calls when something goes wrong and it is these organisations that keep the scheme evolving and alive in the eyes and minds of the cardholder. Only through this route can the cardholder relationship truly become 1:1 whilst being delivered over many functions, applications and organisations.



# Confessions of a Closed System

By "The Listener" (*A source who wishes to stay anonymous*)



*The Listener*

There seems to be much talk at the moment over Smart Cards and stored value. Apparently, so I have been told by several dignitaries in the field the problem has been solved, we have a solution. Curious to the end I was interested to understand exactly how this solution has come about. Visacash, Proton, and others seem remarkably silent, there is the occasional flutter with Mondex providing cards for the 2 million customers of Norsk Tipping (the Norwegian State Lottery), but really there is nothing of the scale envisaged back in the early 90's.

So what's new? Are we confusing a closed system (the issuer and service provider are the same entity, e.g. a transport operator) which is relatively easy to make work with the open electronic purses where value is issued by one legal entity and is accepted by a different legal entity.

If you wanted to put your finger on the original open purse problem it's all about examining the business case of the various parties, the banks, the retailers, and the consumers. In terms of the banks and retailers the cost of managing cash is horrendous from all points of view, the accepting of cash, change, reconciliation, distribution, in a secure fashion to name but a few.

Nobody likes to talk about it but in fact cash shrinkage is a major problem in most (probably all) industries and its not just consumer to business it applies equally in business to business. So we can see that retailers and service providers on the receiving end of the cash chain are highly motivated to improve their cash management and stored value cards potentially offer this facility. As long as the transaction costs are low this can be a good deal, we'll come back to this but for transactions of say £10 or more this can work well. However low value transactions of a few pounds or less can easily be swamped by the charges.

The banks are equally motivated and have the further potential of managing the float of funds assigned but not yet drawn. Better still is escheat where the funds are never drawn from the pot due to lost cards or those that for whatever reason never get used. Just a note of caution, this float is attached to the issuance (creation) of electronic value. In some systems such as Mondex this happens with an 'Originator' organization and not necessarily the distributors of the electronic cash. This follows the classical cash model where notes and coins are issued by the central banks but distributed by the retail banks.

Following on from the Philatelists hobby of collecting unused stamps I always thought it would be a good business to have mint electronic value for collectors. Don't laugh too soon; there is quite a large group of enthusiasts who collect telephone pre-pay cards, unused of course!

So how about the consumer? Well it doesn't take long to realize that cash is a fantastic product and why would he bother to get this electronic version in the first place when the use of cash is ubiquitous? Some of the great success stories have been where the consumer didn't have a choice. Back in those heady days before the mobile phone the use of pay phones was a routine part of life to many. The telcos introduced cards to replace cash and removed choice by providing more card phones than cash phones. The cards soon caught on. If you extrapolate logically the business case for the consumer to use electronic cash falls in two areas,

- (1) Unattended machines (e.g. Parking, vending, ticket, etc)
- (2) Remote payments (person to person and C2B, B2B, etc)

Apart from David Chaum's Digicash none of the open purse schemes have previously focused in these areas although times are changing.





What appears to have happened now is that a number of people have re-invented the pre-authorized debit card. This is a bank account that is not allowed credit where a value can be marked on the account and held on the card for payments (offline). They are being marketed in the U.S. as stored value or gift cards with the Visa or Mastercard brands but the underlying mechanism is the same as for a debit card. There is of course nothing wrong with this except that the overheads of processing the transactions are the same as for a debit card, well actually they can be more as the extract from a U.S provider shows:

### Visa Prepaid Cash Card Operating Fees

<u>Service</u>	<u>Fees</u>
Startup Fee	\$9.95
Card to Card Reload	\$1.00
Bank Account to Card Reload	\$1.00
Direct Deposit Reload	\$1.00
Purchase at Merchant	\$0.50
Purchase Online	\$0.50
Telephone Purchase	\$0.50
ATM Withdrawal	\$1.50
Point of Sale Withdrawal	\$0.00
Monthly Maintenance Fee	\$3.95

(Source: [www.pensoft.com](http://www.pensoft.com))

So while this works with the higher value payments in the C2B market both at attended and unattended terminals it doesn't really hold anywhere else that the electronic purse is designed to service. As we all know at the end of the day only a Mondex type of ePurse can provide the necessary consumer business case.

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## Events Diary 2004

### May

- 5 - 7 Thomson Media 16th Annual Card Forum & Expo - Renaissance Orlando Resort, Orlando - [www.tmconferences.com](http://www.tmconferences.com)
- 11 - 12 Ticketing for Transport 2004 - London - [www.igpc-transport.com](http://www.igpc-transport.com)
- 12 - 14 6th Smart Cards + Smart Label China - Shanghai - [www.scfc.org.cn](http://www.scfc.org.cn)
- 17 - 19 Cards Middles East 2004 - Dubai - [www.worldofcards.biz/2004/cards\\_AE](http://www.worldofcards.biz/2004/cards_AE)

### June

- 1 - 3 Smart Card China 2004 - Beijing, China
- 9 - 10 Contactless Cards - London - [www.smi-online.co.uk](http://www.smi-online.co.uk)
- 10 - 11 Smart Healthcare 2004 - California - [www.idtechex.com/smarthealthcareusa/index.asp](http://www.idtechex.com/smarthealthcareusa/index.asp)
- 22 - 24 Credit Card World - London - [www.worldofcards.biz/2004/ccw\\_uk](http://www.worldofcards.biz/2004/ccw_uk)

### July

- 7 - 9 CardTech Korea - Korea
- 8 - 9 CardEx Asia 2004 - Kuala Lumpur - [www.egytec.com](http://www.egytec.com)

### August

- 5 - 6 Cards Australia - Australia - [www.worldofcards.biz/2004/cards\\_au](http://www.worldofcards.biz/2004/cards_au)



# Smart Cards in the US - Speed is of the Essence

By Nick Holland, Director of Emerging Technologies Advisory Service, Mercator Advisory Group



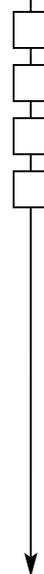
Nick Holland

That MasterCard has finally bit the bullet and decided to go ahead with a mass rollout of their PayPass contactless Smart Card in the US is significant news. It shows a commitment to a new payment paradigm and more importantly a realisation of the business case for Smart Cards in the US; Speedier rollouts for Smart Cards have been associated with either online fraud prevention or customer loyalty initiatives. The former has been sufficiently mitigated by 3D Secure, while e-coupons and other chip related loyalty initiatives haven't provided anywhere near the level of ROI that participating merchants expected.

The news that Target is dropping its Smart Visa card is still going through a post-mortem, but the general consensus is that the cost of card issuance and the lack of use of the chip's functionality led to the program's demise. Target's smartcard program was heavily subsidized by Visa which no doubt softened the blow and it wasn't all bad for them. Since Smart Cards appear to the US public to be a relatively new technology, Target (or 'Targee' as they are often pronounced in the US for their 'Euro' style pretensions) got the gold medal for 'First US Merchant to Mass Rollout Smart Cards'. With card fraud adequately controlled by cheap real-time authorization of all card transactions, the security argument for Smart Cards in the US just doesn't apply at the present time. And the benefits of the marginally used e-coupons application hardly justifies the cost of a card several times that of a mag stripe. Target's decision doesn't herald the end of Smart Cards in the US. As Smart Card costs come down, the benefits of extra authentication of the cardholder along with a platform for decentralized multi-application storage will become more compelling to merchants. But not yet.

What is needed is a revision of the business case. Why would customers and merchants adopt an alternative payment medium? Any new payment paradigm will have to significantly surpass existing, entrenched vehicles on one or more of these characteristics: **(1) Speed** - Will I be able to get through the checkout faster? Will I be able to process more customers per day? **(2) Security** - Will I be more confident and comfortable in my shopping experience? Will my fears of being 'body snatched' by identity thieves be significantly reduced? Is the new technology so difficult to counterfeit that my customers will be unable to defraud me? **(3) Convenience** - Is it easier to use than card, cash or check? Do I need to do less to complete a transaction than with other methods of payment? Will I need to visit the bank less often? **(4) Loyalty** - Will I be rewarded for paying with this technology? Will the technology increase the adhesion of customers to my particular products and / or services? **(5) Cost** - Can I drive customers through the cheapest channels possible with this new technology? Will the cost of necessary upgrades for the technology more than pay for itself? Will I lose business if I don't accept this card / keyfob / barcode / finger?

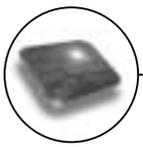
So, how do contactless payments measure up? If the success of the Exxon Mobil Speedpass is anything to go by (and it is), they measure up very nicely, thank you. This inch long RFID device that attaches to your key ring surpasses existing payment mechanisms on a number of criteria: **(1) It is quick and convenient to use** - you can pay for petrol quickly and efficiently in foul weather without removing your gloves by tapping the device against the corresponding reader on the pump. **(2) It is secure** - the card number isn't broadcast or exposed at any point in the transaction since the RFID fob is linked at a network level to a credit or debit card of your choice. The broadcast message is also encrypted. Okay, a lost set of keys with an RFID fob causes the same problems as a lost credit card, but there's probably a finite amount of petrol, pine air fresheners and sparkplugs that a master criminal can sell on before the Speedpass is reported missing by the cardholder. **(3) The combination of speed, security and convenience promote loyalty.** In Exxon Mobil's case, the system is proprietary and no competitors offer rival products, so locking users in to Exxon or Mobil gas stations. **(4) It is relatively cheap (free in fact to the consumer).** For Exxon Mobil, there were obvious upgrade costs at the pump and at the POS, but the convenience of use has been proven to drive repeat business. Where Speedpass readers were installed, locations saw on average a 15% increase in sales. Other savings can be made by pushing transactions through the cheapest channel possible. In the Boston area, Speedpass has been quietly rolled out at a number of Stop and Shop supermarkets in the area.



To register for use in these supermarkets, you have no choice but to enroll with electronic checking data. So, any Speedpass payment made in a supermarket goes through ACH networks, bypassing completely the punitive fees associated with debit and credit card transactions. Speedpass has demonstrated something else of importance that the traditionally conservative American public can embrace a new payment vehicle, and they have done in large numbers; there are 6 million Speedpass customers in the US. It's not hard to understand why the card associations have been pursuing their own contactless payment solutions. MasterCard has been the most prominent advocate of the technology and has run a series of trials in 2002 / 2003 for their PayPass contactless product. The first trial in New York in July 2002 was a relatively small issuance of 450 cards, accepted in three locations; a cafeteria, a general store and a coffee stand. The metrics recorded were impressive - transaction time was reduced 64%, transaction volume grew 36% over cash and average transaction size increased by 15%. Given the success of this small pilot, MasterCard ran two larger scale trials in 2003; one in Orlando, Florida and the other in Dallas, Texas. Orlando was a large scale deployment of 16,000 contactless Smart Cards with 60 participating locations across the retail spectrum from fast food restaurants to vendors of high ticket items such as electronics and cameras. Dallas was a smaller deployment, but used an alternative form factor; 2,000 Nokia phones with contactless technology imbedded in the snap on cover. This trial also made use of SMS messaging to examine the effectiveness of geographically targeted marketing.

Not to be outdone, American Express has also made a foray into the realm of contactless payments with ExpressPay. Initially a small scale pilot in Jersey City, it was given a wider rollout in 2003 to 4,000 participants and 175 merchants in Phoenix, AZ. The ExpressPay payment mechanism is a contactless RFID fob not unlike the Speedpass device (both are made by Texas Instruments) which links to an American Express charge or credit card account. ExpressPay differs from the PayPass model in that ExpressPay allows customers to pre-pay and "load" the device, a nice feature for those wary of having their entire credit limit attached to a bunch of keys. Similar metrics to PayPass have been recorded from the various ExpressPay trials; customer spending per transaction increased 17%-33% compared with standard payment methods and average transaction time was recorded as 28% faster than cash and 42% faster than signature based transactions. A spokesperson at American Express stated that there are no plans to roll out ExpressPay this year and the Phoenix trial will complete as planned in July. The figures speak for themselves - contactless payments are faster than traditional payment media and increase average transaction size, at least in the case of these trials. On paper, contactless looks like a winner for all parties involved. However, mass rollouts have a way of exposing previously unforeseen difficulties. MasterCard is taking something of an informed leap of faith. Teething trouble is inevitable, to what degree is unknown. The 'first-past-the-post' gets not just public acclaim for their innovative product, but quite conceivably locked-in merchants and consumers as well. Both parties are likely to be unwilling to clutter their checkouts and pockets with a plethora of 'also ran' products. And 'cluttered' is the right word - it can be expected that devices and readers touted by card associations aren't going to be quite as surreptitious as the Speedpass tag as they fight for brand exposure.

Longer term, the solution has got to be a consensus between associations allowing for interoperability between device readers. Some degree of foresight is being exhibited in MasterCard's choice of ISO 14443 as the standard for PayPass. If MasterCard wins out at the POS, the opportunity is still there for issuers to develop compatible devices. And the perfect form factor is yet to be determined; although the initial PayPass rollout will be in a card form factor, there is no reason why other accoutrements to 21st century living cannot include the technology. The Nokia cellphone trial points the way to a movement away from traditional cards since the technology can be imbedded into almost any object we carry with us, and even ourselves. Moreover, if speed is the killer app, additional functionality provided by Smart Cards can piggyback on this. The initial business case for Smart Cards in the US; security and loyalty, have been shown to be unable to gain sufficient traction, as we've seen in the case of Target. Contactless Smart Cards can provide a platform for these features to be gradually introduced to users, thus providing an alternative route to the core functionality of Smart Cards. This could well be the route that Smart Card evolution takes in the US. One final factor to consider which may shift the balance in favor of contactless - the human psyche is such that people love shopping and hate paying. Making the instant gratification of 'retail therapy' that bit more instant might just be a winner.



# The Multi - "Killer" - Application Smart Card

By Mike Parker, Specialist Management Consultant, LogicaCMG



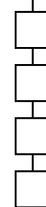
Mike Parker

Smart Card technology is hardly new. It has been around for over 20 years and in that time has developed a reputation for offering benefits on a scale equalled only by its failure to deliver them. Much of this has to do with an overflowing of those very laudable human qualities of imagination and enthusiasm. The tendency to fail to consider mundane and trifling issues such as cost, practicality and customer value is a fairly common trait in the area of advanced technologies.

Despite an unenviable reputation as a complex technology, which vendors would like to find a way of getting everyone to adopt immediately so they can recoup their development costs, Smart Cards have actually delivered huge benefits across a wide range of diverse applications. The deployment of Smart Cards has proved their worth in secure access, transport, financial services and several areas of government to name but a few. Naturally enough the institutions using the smart card for its' primary purpose in their particular area of application are interested in how they might be able to leverage their investment in the technology to gain additional value. Equally natural is the possibility of getting the card to fulfil more than one purpose springs to mind. Of course it's not that simple.

Creating a Smart Card to do one thing is comparatively cheap, getting it to do two or more things is incrementally more expensive as far as the card is concerned and even more expensive from the card management viewpoint. This makes the business case much harder. Smart Card prices continue to fall and competitive pressure to deliver greater value and functionality using one token increase, particularly in the financial services sector. The response to this situation though often reflects ingrained "single-function" thinking. This is expressed most clearly in the injunction to "go and find a generic, globally applicable additional killer application to put on our card". It is implicit that the application should not be anyone else's even though this would immediately improve the business case as issuing costs could be shared. This seems reminiscent of Henry Ford's famous statement about mass-production: "They can have any colour they want as long as it's black". The history of modernity is inextricably entwined with an ever increasing focus on the worth and uniqueness of the individual. It was not very long after Ford's statement that colour, styling and options became central to the automotive industry's customer offering. Today the emphasis on customer-centric thinking is without precedent and I, the customer, would like to make choices about my card. Already several banks are recognising the value of this approach. You can now "design" your own credit card picking and choosing amongst different benefits, interest rates and so on. In another example you can submit your own photo and select artwork from a range.

Personalisation is inevitably going to become increasingly fine grained, it may well even begin to be distributed through smaller facilities much closer to the point of customer contact. There is probably not much doubt that the first steps to putting additional applications on cards will involve a single additional application which delivers added value within the Issuers industry sector and comfort zone. In the case of the banking industry the addition of functionality that can be used in conjunction with a cheap hand held card reader to secure Internet Logons through strong authentication springs to mind. Even so with re-issue periods being two to three years it may be a whole cycle before we see more than just a payment application on most credit and debit cards. Yet while the different industry sectors which use Smart Cards for different purposes are in many cases casting around for the added value application applicable to their own cardholder population, they may be missing the possibility of offering customers a choice about what goes on the card. If the customer is able to choose then the make up of the cardholder base may change from its previous single application focus, and open up completely new business opportunities. In summary, the versatility and choice that could be offered by multi-application cards is much more attractive to the customer than an additional application that the issuer has decided is the "killer". It is after all the customer who finally decides which card goes in their wallet and whether it is at the front or the back. If I am going to have to carry a biometric ID card in the near future I would certainly like it to be able to do more than just confirm that my finger is actually mine. Maybe we should be thinking about who will rent chip space from the Government and who will compete to be on the menu of available additional applications.



# The Threat From Within...



By Janne Saarikko, Director of Global Marketing, SSH Communications Security



*Janne Saarikko*

Companies are investing in information security to protect networks against external threats. But anti-virus solutions, firewalls, and Virtual Private Networks (VPNs), collectively referred to as perimeter security, can only provide security if the internal network can be trusted. Strong evidence suggests that internal networks cannot be trusted and that business-critical information is sent unprotected through corporate intranets.

Traditionally, companies have put their information security efforts in perimeter security, protecting only the outer walls of the corporate networks. Internal information security has been a matter of trusting the employees. Most security breaches do not originate from external hackers, viruses or worms, but from employees who, according to Gartner, commit more than 70% of unauthorised access to information systems. They are responsible for more than 95% of intrusions, according to the Computer Security Institute and the FBI, an insider attack causes an average of \$2,1 million in damages, whereas the average outside attack costs \$45,000

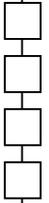
The most obvious risk is the human factor. People having access to internal networks is always a threat that is very difficult to manage. The responsibility of attack should not be put on the shoulders of an individual employee. It is fairly easy to create a small piece of software that will attack the internal network once it is planted on any computer system within the corporate network. Distributing the program can easily be done by anyone, without any special computer skills. In most cases, the person who installs the malicious software, is not aware of it. Once a malicious program has been installed, it can cause harm in various ways. The security threats arising from within are increasing the operational risks of businesses; **(1)** Potential loss of reputation in the face of customers, partners, investors **(2)** Risk of business interruption Violation of legal and regulatory requirements to protect sensitive customer information

Information security should be an integral part of operational risk management, which covers areas such as human resources, physical security and general security. Managing internal security effectively involves implementation of confidentiality, data integrity, authentication and authorisation to mission-critical business applications as part of the corporate security policy. Secure communications can be implemented in different layers of this architecture. Perimeter security solutions are often based on embedding security features in the IT infrastructure or business applications. Neither one of these approaches allow for end-to-end security. Integrated infrastructure security requires expensive and complex re-engineering projects and often involves dedicated hardware in front of the servers that need to be secured. Embedding encryption and authentication in business applications requires code modifications to each business application. For enterprises this is rarely a viable option, given the amount and variety of client/server applications in use.

“As a first resort companies should have a policy in place which restricts the downloading or installation of software by unauthorised employee’s and this should be part of their security policy” commented Patsy Everett of Smart Card News.



[www.ssh.com](http://www.ssh.com)



# CeBIT - The Giant Just Keeps Growing

By Jason Smith, Production Editor, Smart Card News Limited



Jason Smith

Since the birth of CeBIT, meaning Center for Office and Information Technology, on 12 March 1986, thousands of suppliers and users from all over the world have come together every year in the early spring for CeBIT in Hannover, Germany. In just one and a half decades, CeBIT has grown from its origins as part of the HANNOVER FAIR to become one of the largest trade shows of any kind, anywhere in the world. For many years now, CeBIT has been the unrivalled International showcase for IT, telecommunications, software and services.

This year alone attracted more than 6,400 exhibitors occupying a total of over 334,000 square meters (approx. 3,595,150 square feet) covering areas such as Smart Cards, virtual private networks, games consoles, DVD's, digital photography, Flash-Memory, Mobile phones, Biometrics Systems, Wearable computing, nano-technology and even autonomous robots. With attendance totalling 510,000, CeBIT 2004 has exceeded all expectations, with an average of 3,400 more visitors per day compared with last year - the first such rise in three years. This fully confirms that the decision to shorten the show by a day was a very favorable move on the part of Deutsche Messe AG and its exhibitors.



German Chancellor Gerhard Schröder at the Opening Ceremony

Figures released by CeBIT showed that almost 50% of trade visitors at CeBIT 2004 came with actual purchase plans, and firms across all sectors made it abundantly clear that they are ready to make an active contribution to triggering an economic upturn. In some key areas of visitor profiling, CeBIT 2004 achieved better results than ever before in the 18-year history of the event. With as many as 25% of this year's visitors coming from abroad, this figure has never been higher, with the most distant region, Asia Pacific generating a record total of 27,800 attendees. Visitors from the People's Republic of China and Taiwan almost doubled, with 7,400 trade professionals coming from these regions. Even the US attendance statistics (in the wake of the post-September 11 slump during the past two years) have risen significantly, to 3,100 visitors (2003: 1,900).



For Jürgen Gallmann, CEO of Microsoft Germany, it was "a very successful CeBIT that exceeded our expectations, with the "Integrated Innovation" motto being extremely well received by visitors." The diversity of the firms exhibiting at CeBIT bears witness to the ongoing transformation of the event away from its traditionally product-centered approach and towards becoming a strongly solutions-driven event. Global networking was the central goal of the program of conferences and lectures held at CeBIT 2004. The "ICT World Forum @ CeBIT" provided a meeting-place for the international elite of the ICT world. Around 30 keynote speakers from leading companies discussed the latest trends and coming challenges of the industry with 300 informed participants. A total of 1,300 visitors attended a wealth of conferences, and some 250 Corporate Lectures proved a valuable source of information for a keen audience of about 10,000.

"Virus protection, user authentication and the security of wireless networks are the all-prevailing themes for businesses, service providers and banking institutions. RFID is a new technology on the brink of a major breakthrough that is set to open up a whole new realm of possibilities: in communications and entertainment systems, materials handling, the retail trade and pharmaceutical security, through to personal documents such as passports and health cards." said Ernst Raue, Member of the Managing Board of Deutsche Messe AG, in his end-of show press conference for CeBIT 2004.

EVENT SPECIAL



This focus was shown by several applications being showcased at the event, which were based on RFID technology (Radio Frequency Identification), by chip and hardware manufacturers as well as software providers and data privacy specialists. A number of different providers demonstrated the necessary infrastructure and the subsequent processing of RFID data in ERP or SCM systems. It is still too early however to say just which applications involving materials handling, retailing or health care will become market-capable, all the more so since the technology still needs to be standardised in several areas.

After a heated debate on the pros and cons of RFID technology, a consensus among a panel of experts at CeBIT 2004, showed that a growing support for RFID (radio frequency identification) tagging among technology vendors and retailers is creating both conveniences for consumers and new threats to their privacy. RFID tags are similar to bar codes in that they contain data and require a transmitter gun to collect it, but they can store more information than bar codes. Retailers like Wal-Mart Stores Inc. have been eager to adopt the technology because it can help them track inventory and buying information. However, privacy advocates fear that the tags can be left "active" after a sale, and the data stored will continue to be accessible. What's more, RFID tags placed in store loyalty cards, for example, could be used to profile consumers' shopping patterns.

The event also showed that the demand for solutions compatible with multi-functional Smart Cards still continue unabated. Intelligent applications require barrier-free - but above all, secure - concepts and systems for online payment transactions. This includes using digital signatures as a means of customer authentication. The trend is being accompanied by new or refined methods of electronic payment by mobile phone. Additional topics at CeBIT 2004 included credit and risk management as well as support for, and partial automation of, the underlying procedures.



The shows security focus was all localised in Hall 17 in the Center for Information Security (CeFIS). This area featured a range of technology on protecting sensitive data and guaranteeing the availability of IT resources in businesses and public administration. Smart Cards, which were seen as supporting a growing number of functions along with increasingly complex applications, were on display at CeBIT within this section. A key focus of this area dealt with the integration of different security mechanisms, encryption concepts and storage technologies. Biometric and cryptographic processes enable new types of passports and identification documents, and the necessary specs for these appear to be already being finalised internationally. Even in the health care sector, the universal introduction of intelligent card systems appears to be only a matter of time. Additional solutions for business and security-minded end users can be seen in the integration of USB memory media with Smart Cards or fingerprint sensors preventing unauthorised access.

The main news that came out of this section of the show was that the German Federal Printery, had stated that they plan to achieve a successive introduction of the digital passport as of 2005. The face and two fingerprints will be saved as biometric features on a Smart Card. The biometric data will be encoded so that only persons who are entitled too can read the information on the chip. Data encoding shall also ensure the forgery-proof nature of the new passports. The costs of a passport with biometric data would not differ much from those of the standard model, a spokesperson said. This year CeBIT has been a big success, so much so that some 82% of exhibitors have already decided to return to Hannover for CeBIT 2005 The next scheduled CeBIT Hannover will be staged from Thursday, 10 March, to Wednesday, 16 March 2005.



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