Smart Cards Now • Smart Cards Now

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Smart Cards Now

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Chip and PIN Programme

The first trial of Chip and PIN launched in Northampton in the UK this month. The website accompanying this scheme is a worthwhile visit for anyone interested in finding out more about this method of authenticating card payments. Navigation is excellent throughout, and the information on offer is presented in a clear and thankfully technobabble-free style. Given the hugeness of the project it is to the credit of the writers that the technology and its implications are so well explained. The FAQ is very concise and divided into several sections, each one dealing with the concerns of the many parties involved in a transaction. Reference materials which go into yet more detail are available as downloadable PDF documents.

www.chipandpin.co.uk

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Appearance

Card Watch

Card Watch is a subsidiary site of APACS (Association for Payment Clearing Services), a trade association for banks and building societies. With card fraud becoming ever more common the finiancial services industry has recently launched Chip and PIN technology to combat this. Card Watch is a utilitarian website with the single aim of providing accessible information on fraud prevention to retailers and cardholders. Each section is awash with good advice, including information on how to prevent card 'skimming'. The design is simple, if slightly gaudy in places, but the emphasis on quality information and personal empowerment is to be commended.

www.cardwatch.org.uk

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ACI Worldwide

ACI's website is rich with information about their diverse e-payment product lines, each one supported by a PDF brochure and a section featuring associated news. Individual case studies provide an excellent showcase for the products' applications, a useful tool for prospective clients to assess the quality of ACI's work. A neat little feature is the intelligent use of animations which, although not adding anything content-wise, add some visual interest to what would be very static looking pages. The layout of the site is balanced and easy on the eye, with subtle use of colour and consistent navigation throughout.

www.aciworldwide.com

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Smart Cards on the Web

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Security and Chip Bank Cards are Driving Market

Concerns about security is a key driver for the Smart Card industry while the demand for Smart Card products and services will be fuelled by the migration of bank cards from magnetic stripe to chip technology, according to two new research reports.

Security will continue to be a major initiative for enterprises and governments throughout this decade, providing promising revenue growth potential for Smart Card solution vendors, according to the Global Smart Card Opportunities report by market analysts Datamonitor. It says that uptake of Smart Cards for security / access purposes will increase in government, financial services and healthcare and global Smart Card shipments for standalone security will reach 36 million in 2006. The largest market for security solutions will be North America, which will account for 47% of global shipments in 2006.

"Due to the recent policies of the Bush administration, homeland security is a massive initiative and this is leading to many organisations revising their security procedures,"said Tim Gower, Datamonitor security analyst.

"Security is certain to remain a major national initiative given the geopolitical situation throughout this decade. In Europe, the Middle East and Africa (EMEA) enterprises and governments will continue to make investments in security solutions. In Asia Pacific there is certain to be uptake and smaller markets such as Australia are already hot spots for this technology."

Demand to reach $8bn in 2006

World demand for Smart Card products and services could increase 11% per year through 2006 to US $8 billion with Smart Card issuance doubling to almost 4 billion units, says a new study from US-based The Freedonia Group. Fuelling the demand will be the gradual migration of the world's bank (debit/credit) card population to chip cards which is being helped by the implementation of interoperability standards for Smart payment cards based on the EMV (Europay/MasterCard/Visa) specifications.

The study, World Smart Cards (price $4,800), sees significant potential in the wireless phone market as subscriber rates continue to rise and expects increasing use of multi-function Smart Cards as development continues to be perfected.

Websites
- www.datamonitor.com
- www.freedoniagroup.com

World Smart Card Market (million dollars)			
Item	1996	2001	2006
Cards & microchips	1354	2395	3910
Readers & terminal equipment	481	776	1190
Other Smart Card hardware	251	514	885
Software & services	454	1050	2015
Total products demand	**2540**	**4735**	**8000**

Le Lead Story

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Verifying Workers On Site

Keycorp is to supply Smart Card terminals for a system that allows the credentials of workers in the American construction industry to be verified at the job site.

The system, Pace SmarterSkills Credentialling System (SSCS), from Pace Integration, is endorsed by the American Federation of Labor & Congress of Industrial Organisations and allows building contractors, safety inspectors, and government agencies to verify workers' credentials on site, thus making a positive contribution to safety and security.

Pace Integration has chosen Keycorp to provide their identification authorisation terminal and intends to deploy 500 Keycorp K23 fixed line electronic payment terminals and 250 K78 mobile payment terminals by the end of the year.

The terminals quickly capture and read workers' Smart Cards and PIN numbers. The K78 multi-purpose mobile handheld terminal allows credentials to be verified anywhere, anyplace without the necessity of online computer equipment. It features both a wireless and a dial-up modem, a secure PIN Pad, magnetic stripe and Smart Card capability for a variety of card transactions, as well as a printer and communications in one small unit.

The K23 is a fixed line terminal for credit and debit transactions and features a large graphics display, a thermal printer and an intuitive user interface. It is Smart Card-capable and meets the latest security standards including compliance with the EMV (Europay/MasterCard/Visa) specifications.

Royal Mail £1.5bn IT Contract

Royal Mail Group, UK, has signed a £1.5 billion contract with Computer Sciences Corporation (CSC) to outsource its IT operations as a key element of a three-year renewal plan to return Royal Mail to profitability. It expects savings of £250 million to be generated over the life of the ten-year contract.

CSC's Prism Alliance, which includes BT and Xansa, will be responsible for running Royal Mail Group's data centres, data networks, voice services, desktop computers and over 600 business application systems. As prime contractor, CSC will be responsible for the overall management of the contract, relationship and services to be delivered.

Adam Crozier, Royal Mail Chief Executive, said: "This is a great deal for Royal Mail and a great deal for our people. It is a vital component in our renewal plans in terms of reducing costs and giving us the information technology services that we need to make Royal Mail a great company.

"The CSC-led Prism Alliance is a powerful combination of three world-class companies. In one leap we will have access to the levels of advanced technology we need to compete successfully and improve our services to customers."

Infrared Card Payments Test

A pilot program to test an infrared credit card payment service DoCoMo 504i and 504iS series mobile phones, which are equipped with infrared transmission (IrDA) ports, will start in Tokyo in June and involve Visa International, Nippon Shinpan, OMC Card and AEON Credit with NTT DoCoMo. A commercialised service involving participation of other card companies is targeted for spring 2004.

The pilot involves a DoCoMo 'I-appli' application for payments based on the Visa Proximity Payments Messaging Specification. Credit card data is downloaded and then stored in DoCoMo 504i and 504iS mobile phones equipped with an IrDA port to exchange information with other IrDA-equipped devices via an infrared signal. These phones are currently owned by over eight million people.

In the first phase of the pilot, Nippon Shinpan and DoCoMo will focus on technical evaluations of the service, including communication formats, payment methods and user operability. Nippon Shinpan will select 3,000 Visa cardholders and provide infrared payment terminals to about 500 merchants.

In the second phase, which begins this autumn, OMC Card and AEON Credit Service will join the pilot to recruit more users and expand the range of participating merchants, bringing the pilot program closer to full commercialisation.

Open Security Exchange Group

Four leading security solutions providers have announced the formation of the Open Security Exchange, a collaborative group that is defining best practices and promoting vendor-neutral specifications for integrating the management of security devices and policies across the enterprise.

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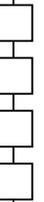
Initially, the four founding members - Computer Associates International, Gemplus, HID Corporation, and Tyco Fire & Security's Software House - will focus on the integration of physical and cyber security technologies. They say that lack of assimilation between these two primary aspects of enterprise security is perhaps the most glaring example of how security management remains fragmented at most organisations today.

"Most corporate security managers would not dream of having separate security systems for their Windows and UNIX servers, yet they often have no linkage between their building security systems and their cyber security systems," said Russell M Artzt, Executive Vice President of CA's eTrust security brand. "The Open Security Exchange is committed to remedying this situation by delivering an interoperability specification to support the effective integration of these diverse areas of security management."

The initial specifications for physical and cyber security management convergence are available at www.opensecurityexchange.com.

According to the group, this convergence will eliminate many of the risks created by separate physical and cyber security management. For example, without physical/cyber security integration, security teams cannot readily determine if someone is trying to use a computer system while its owner is not physically present in the building. This leaves organisations vulnerable to insider abuse including password stealing.

Hypercom Contracts for Terminals

Hypercom Corporation has been awarded a twelve month, multi-million dollar contract for 10,000 card payment terminals and technology by JR's POS Depot, a service transaction equipment provider. JR will rollout the Smart terminals with HyperSafe operating system security features to merchants nationwide.

In addition, The Industrial and Commercial Bank of China has again selected Hypercom as its preferred provider for card payment terminals and technology for 2003 for the second year running. The designation is expected to generate multi-million dollar orders for thousands of Hypercom ICE 5500Plus and ICE 5700Plus card payment terminals and technology with HyperSafe operating system security.

Oberthur Card Order

First National Bank Omaha, a division of First National of Nebraska, plans to issue 100,000 Visa Smart Cards from Oberthur Card Systems over the next two years. This will enable the bank to offer its customers greater protection against card fraud and a range of personal data management applications.

Among the advanced services First National Bank Omaha will deliver at no extra cost to its customers is fileIt - a 'convenience storage' application that allows individuals to store personal data, such as birthdays, a social security number or frequent flyer details, for example, securely in the card's memory.

In addition, the card can be updated online from the bank's Web site, ensuring the customers have the latest, most secure Smart Card applications without having to receive a new card. Oberthur is supplying its CosmopolIC Lite Smart Card for the program.

Atmel CryptoMemory for Datakey

Datakey Electronics has announced that Atmel's CryptoMemory products will be incorporated in their latest CryptoMemory Keys.

Unlike cards that can be easily broken in rough usage, the key's body protects the embedded memory chip from physical damage and harsh environmental influences. Applications include access control, cashless vending, secure data transfer, gaming machines, ATMs, metering and loyalty programs.

Datakey Electronics' CryptoMemory Keys will be available with user EEPROM memories up to 256 kilobits. Samples are available in wafer, module, card and standard plastic package form.

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Card Fraud Reaches UK Record

Plastic card fraud in the UK reached a record high in 2002 with £424.6 million worth of fraudulent transactions compared with £411.5 million in the previous year, according to the Association for Payment Clearing Services (APACS).

Chris Pearson, APACS Chief Executive, said that more than £1 million worth of card fraud is committed every day - that is a fraudulent transaction every eight minutes.

He claimed that the introduction of Smart Card chips and PIN would wipe the smile off the faces of the UK's fraudsters.

Fraud type		£ million	
	2002	**2001**	**1997**
Counterfeit cards	148.5	160.4	20.3
Cards stolen or lost	108.3	114.0	66.2
Card not present fraud	110.1	95.7	10.0
Mail non-receipt	37.1	26.8	12.5
Fraudulent applications (ID fraud)	10.2	6.6	11.9
Account takeover (part of ID fraud)	10.4	8.0	1.2
Total	**424.6**	**411.5**	**122.0**

Fraud losses on UK cards split by fraud type

Nationwide Orders EMV Cards

Oberthur Card Systems has been awarded a three-year contract by the UK's Nationwide Building Society to supply a card production, chip embedding and personalisation service for Nationwide issued cards. The cards will be supplied from Oberthur's production plant in Tewkesbury, England.

Paul Feldman, Divisional Director, Banking and Savings at Nationwide Building Society, said: "Nationwide is strongly committed to investing in increased measures to eliminate opportunities for fraudulent and unlawful transactions."

EMV Certification in SE Asia

Gemplus has announced that Secur-Card Gemplus (SCG) in Singapore has become the only centre in South East Asia certified to manufacture and personalise EMV Smart Cards for Visa and MasterCard. The company says this certification will ensure the quick roll-out of EMV Smart Cards across Asia Pacific for Visa and MasterCard member banks.

New Emosyn Microcontrollers

Emosyn, the fabless semiconductor division of ATMI, has added two new Smart Card microcontrollers - Theseus Platinum 50 and Theseus Platinum 62 - aimed at volume subscriber identification module (SIM), banking and identification applications.

The Theseus Platinum 40 is already being used in 16K byte SIM products and volume ID applications and is being tested in EMV (Europay\MasterCard\Visa) markets. Theseus Platinum 50 targets existing SIM and Smart Card segments while the Theseus Platinum 62 provides greater flexibility to Smart Card manufacturers seeking to provide more cost-effective high-end 32K byte SIMs.

Identity Authentication Tokens

VASCO Data Security International has launched two new members of its Digipass Strong Identity Authentication hardware tokens, Digipass 260 and Digipass 560. Both products are designed for use in the banking sector.

Digipass 260 is a small and lightweight password protected authentication device, offering remote access, authentication and e-signatures. Digipass 560 is an authentication code generator, with multiple functions such as digital signature capabilities.

New features of the Digipass 560 include multiple language support and the implementation of the recent AES algorithm. It replaces, together with Digipass 550, the classic Digipass 500, one of VASCO's most successful authentication tokens used for banking and other financial applications.

Swiss Bank Contract for G&D

Swiss bank Hypothekarbank Lenzburg (HBL) is to replace its home banking procedure based on entry of a PIN and TAN (transaction number) with the use of Smart Cards from Giesecke & Devrient (G&D).

As a technology partner of IT services provider Trivadis, G&D has contracted to equip HBL with a

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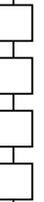
state-of-the-art system for secure e-banking. Communication between the Smart Card and the customer PC will be enabled by SafeSign software from Dutch company AET (Advanced Encryption Technology).

Authenticating banking transactions users needs only a single password for access to the e-banking application. The G&D card will also enable encryption and digital signing of e-mails. In addition to the Smart Cards, which require a card reader, the bank is also issuing G&D StarSign USB tokens for mobile users.

Bell ID and G&D Partner

Bell Group subsidiary Bell ID has signed a global partnership agreement with Giesecke & Devrient (G&D) to capitalise on the working relationship developed while delivering the Macau SAR national identity Smart Card project announced in January 2002.

Dr Matthias Merx, Executive Vice President of G&D's ID Division commented: "Projects in the area of Identification systems are growing increasingly complex with the number of functions a customer wants to see on his Smart Card. Supplying a tailor-made solution, and this is what the customers expect, is not a matter of excellent products, but of the ability to integrate them and optimise their functionality. For this task, technology partners are needed that go with you all the way from concept to system operation. Bell ID is such a partner for us."

New Eurosmart Chairman

Olivier Piou, President of Schlumberger Smart Cards and Terminals, has been named Chairman of Eurosmart, the Brussels-based international Smart Card industry association.

He replaces Dr Lutz Martiny of Micróelectronica Española, the leading Spanish Smart Card company.

TSA Smart Card Project

MAXIMUS has been awarded a $3.8 million contract by the US Transportation Security Administration (TSA) to assist TSA in field testing various technologies that will lead to a common, universally recognised biometric credential for transportation workers requiring unescorted access to secure locations within a transportation facility.

The Transportation Worker Identification Credential (TWIC) could potentially be used by twelve million transportation workers at seaports, airports and land transportation hubs.

The five-month contract also involves Electronic Data Systems as well as Information Spectrum, SEI Technology and DataTrac, experts in optical memory stripe technology; ISR Solutions and ActCom, experts in physical access control: and ActivCard, a provider of secure Smart Card software.

Contactless PC Reader

French technology company Inside Contactless has introduced Accesso, a low-cost multi-standard USB PC reader. Accesso acts as a security module providing protection including secret key management and cryptographic calculations for secure authentication and communication between the transponder or another contactless reader coupler and the host. The reader is compliant with ISO 14444 A&B and ISO 15693 standards and can also communicate with FeliCa chips.

Adi Shamir Wins Turing Award

Professor Adi Shamir of the Weizmann Institute of Science has been awarded the prestigious International Turing Award for computer science. He will share the award with Ronald Rivets and Leonard Adelman for their work on the coding based public key algorithm RSA.

News in Brief

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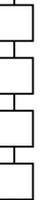
Smart Cards in Transport

The progress of Smart Cards in public transport, tolling and fuel payment continues as the European Union calls on European and national governments to provide stronger support to the deployment of European Transport Smart Cards.

ASK Delivers 1.7 Million Cards

French dual interface contactless Smart Card manufacturer ASK says it has shipped 1.7 million cards to the German public transport associations, Verkehrsverbund Rhein-Ruhr (VRR) and Verkehrsverbund Rhein-Sieg (VRS) representing 54 transport operators in the North-Rhine-Westphalia region.

The project is described as Germany's first and Europe's largest roll-out of Smart Cards in public transport. VRR's extensive bus and rail network handles 1.1 billion passengers per year and VRS handles over half a billion.

ASK supplied the cards for card.etc, the general contractor and project manager with the Kompetenz-Center EFM (Automatic Fare Collection) located at VRR in Gelsenkirchen.

The ASK MV5100 cards include three different applications - e-Ticket, e-Purse and e-Market. The e-Ticket is being introduced first, and since January 2003 the ASK cards have been delivered to yearly and monthly ticket holders. In a second phase, a broader range of services (e-Purse and e-Market) will be offered to customers.

The ASK MV5100 dual-interface contactless Smart Cards operate in full contactless mode for transit applications, including support for intermodal travel (subway, light rail, buses and other public transport systems); and contacted mode for the e-Purse application.

Forth Road Bridge Toll System

Traffic on the Forth Road Bridge in Scotland has nearly doubled in just over ten years and now The Forth Estuary Transport Authority (FETA) has called in Hyder Consulting to review the existing tolling system in which the toll for a standard car is 80 pence, payable in cash.

Over 23 million vehicles use the bridge every year and Alastair Andrew, General Manager of FETA, explained: "Tolling technology has developed in quantum leaps since the current tolling system was installed. The current control system hardware and software in particular are reaching the end of their useful life."

Jack Opiola, Hyder Consulting's Director for Intelligent Transport Systems said: "We will be looking at whether customers might be offered a greater choice of payment methods, such as contactless Smart Cards and electronic toll collection. Digital cash payments offer operational efficiencies that can be passed onto customers and in some cases increase the speed of toll collection to relieve congestion queues created by manual cash operations."

FuelMaster Express Program

On Track Innovations (OTI) has announced that ABSA Bank, the largest commercial bank in South Africa, has joined the FuelMaster Express program giving BP and Excel (BP's FuelMaster alliance partner) access to a customer base of over 400,000 motorists.

The system monitors and expedites the fuelling and payment process for fleets. Customers issued with the FuelMaster Express key fobs will be able to use them at BP and Exel sites on an interoperable basis.

Call for Stronger Government Support

In its recently-published White Paper on e-transport, e-Europe Smart Cards (eESC), the European Union initiative designed to accelerate and harmonise the development and usage of Smart Cards across Europe, calls for European and national governments to provide stronger support to the deployment of European Transport Smart Cards.

"It is no longer time to finance only research and investigation," said Dr Stefan Kissinger, Chairman of the Public Transport 'Trailblazer' group of e-ESC, and co-Chairman Lutz Martiny, added: "Europe now needs to actively support passenger transport e-ticketing systems based on Smart Cards."

Six Million Cards Order

China Unicom, the second largest mobile phone operator in China, has ordered six million GSM cards from Oberthur Card Systems.

The SIMtonIC cards will be manufactured and personalised in Oberthur's Shenzhen factory which is ISO 9001 version 2000 certified.

$35 Million Contract for Nokia

Globe Telecom has awarded Nokia a $35 million contract to expand its GSM network in the Philippines. The contract is scheduled for completion by the end of October 2003.

Motorola Contract in Jordan

Motorola has signed an expansion contract for GSM and General Packet Radio Service (GPRS) networks with Fastlink, Jordan's most popular mobile network. Total value of the contract is about $19 million and includes hardware as well as software and services.

G&D Co-operation With T-Mobile

German technology group Giesecke & Devrient is to further expand its business relations with T-Mobile Group, the world's second largest mobile network operator, thereby strengthening its position on the telecommunications market. G&D will be taking over the entire operations of T-Mobile's SIM card service center in the city of Münster.

Each year at its Münster facility, T-Mobile personalises, finishes, and distributes to T-Mobile partners roughly 10 million SIM cards for a number of its mobile operators. G&D will be handling these services from now on, intensifying its previous collaboration with T-Mobile. For the immediate future, plans are to take on personalisation for further mobile network operators within the T-Mobile Group, convert the service center into an international production facility, and nearly double the card volume. The deal involves integrating the location in Münster into the G&D Group as one of its facilities. The overall contract is scheduled to run for a period of five years.

National ID for UAE

Sagem, which won the contract to provide a nationwide ID program in the United Arab Emirates (SCN April 2003) has awarded a contract to Gemplus to deliver over two million Smart Cards, software and services from its ResIDent secure ID solution starting in the summer of 2004.

Sagem will provide advanced biometric technology with the AFIS (Automated Fingerprint Identification System) and system integration.

This is the second ID contract win in the Middle East for the Sagem-Gemplus partnership. The first contract was in the Sultanate of Oman, scheduled for roll-out at the end of 2003 (SCN February 2003).

Iris Recognition at Airport

EyePass, an iris recognition access control system from EyeTicket Corporation, has been launched at the Charlotte Douglas International Airport to provide positive identification of employees at security checkpoints.

The airport has installed four EyePass Model EP-4 stations at security checkpoints in Concourses A, B, C and D for use by airline and airport employees, Transportation Security Administration (TSA), law enforcement and emergency personnel, as well as contractor, vendor and retail workers to provide positive identification of personnel authorised for access using iris recognition.

Bio Authentication for Windows

Microsoft plans to build a reference fingerprint device driver based on AuthenTec's TruePrint fingerprint software technology. The architecture will support multiple biometric authentication vendors including AuthenTec's TruePrint-based fingerprint sensors. The common biometric device driver model will be made available through a Device Driver Kit.

"Microsoft and AuthenTec are working together to offer the first biometrically-enabled operating system providing convenient and secure user authentication for Windows users," said Michael Stephenson, Lead Product Manager for Microsoft Windows Server.

For more information visit ...

card.etc AG
www.cardetc.de
Hyder Consulting
www.hyderconsulting.com
On Track Innovations
www.oti.co.il
eEurope Smartcards
www.eEurope-smartcards.org
Oberthur
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Gemplus
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AuthenTec
www.authentec.com

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News in Brief

OpenWay Group Conference Report

by Jon Barber, Microexpert Ltd

The OpenWay Group conference was held in St. Petersburg from the 14th-16th of April at the Hotel Angleterre. OpenWay showcased their flagship product, WAY4, and had an impressive number of customers and business partners on hand to endorse the quality of the groups offerings.

Jon Barber

History of OpenWay

OpenWay was established in 1993 with its' first consulting project, with the OpenWay Group being formed in 1995. The WAY4 product was first planned in 1997 with the subsequent launch in 1998.

The Group currently has 42 customers and a growth rate of 35%, with offices in Brussels, Malta, St Petersburg and Moscow. Having made a name for themselves in their home territory, they are now extending their marketing operations into Western Europe.

OpenWay is an approved software vendor of MasterCard/Europay and of Visa International and is a member of the Visa Smart Partner Program. Its products are fully compliant with EMV standards for smart processing.

Way4

OpenWay's real time front-end and back-office solution for card payment processes, Way4, is based on fundamentally new design concepts and systems.

Designed in a modular fashion, whereby discrete system functions are introduced & configured by business rules. The design also allows the utilisation of a variety of delivery channels.

Andrew Vereninov, one of the chief achitects of Way4, assured me that they have gone to extreme lengths to ensure that the design is as generic as possible. This is a crucial aspect that many architectures start with but gradually lose over time when market and customer pressures are brought to bear. This results in disparate systems that are impossible to maintain and extend, and customers end up with dead end products.

As Way4 has avoided this pitfall, the resulting system is open and flexible, meaning that customers have a scalable product that can be upgraded as business and market requirements dictate.

Other notable aspects of Way4 include EMV compliance and Internet / Web enabled access.

More than forty financial institutions have adopted OpenWay, including six multibank service providers and two national processors in several countries. Many of them have moved to OpenWay solution from their old legacy solutions, and several of these had representatives on hand at the conference to discuss their experiences.

Customers

Representatives from Kazkommerts Bank, Ros Bank, Paynet, Moscow World Business Bank and Banksys gave case studies of their use of Way4 and OpenWays Services.

Kazkommerts Bank (KKB) gave an overview of the EMV chip implementation project they undertook using the Way4 platform. Founded in 1990, Kazkommertsbank is the largest private bank in Kazakhstan. The EMV project was initiated in 1999, with the feasability study showing that the robust security of EMV

Smart Cards was a key benefit in the Kazakhstan market. WAY4 deployed at KKB covered the entire card management and payment processing workflow.

The cards used are the e-Galleon EMV compatible model by SchlumbergerSema, with Hypercom and Bull supplying the terminal hardware.

After compliance testing by both Visa & Mastercard Europe the first purchase with a Smart Card was recorded in September 2001, with the purchase of a rug at a boutique in Almaty. The future direction of the project includes replacing all POS terminals with chip capable models by 2003, complete the replacement of all the magnetic stripe cards with Smart Cards in 2004 and complete the modernisation of ATMs in 2005.

"OpenWay is a superb partner to work with, both technically and on the business side of things," said Galina Omarova, the Deputy Director of Card Operations.

Business Partners

Business partners were represented by the likes of Schlumberger, Computel and Cybernet, amongst others.

Yaron Charka, CEO of iBIZ Software Inc. gave an informative presentation of how their CommerSafe suite integrates with Way4 to provide Visa and MasterCard compliant 3D Secure solutions.

The Way4CommerSafe module enables any Way4 client to become 3D Secure complaint by a simple upgrade.

Visa in Russia

Igor Gaidarji and Robert Clark from Visa International gave an overview of Visa in Russia. It is clear that card numbers have grown rapidly since the CEMEA region was formed, from about 8 million in 1998 to a current number of over 40 million. The projected growth is for 100 million cards by 2006.

Similarly expenditure at merchants has risen from around 6 million US$ to around 16 million US$, and is projected to reach 40 million US$ by 2006.

Russian card numbers have increased by 350%, from 1.2 million in 1998 to 4.4 million (at December 2002). This is impressive, given the situation that Visa has had to overcome:

☐ Mistrust of banks after financial collapse in 1998
☐ Inadequate capitalisation of the Russian Banks
☐ Proprietary card programs offering restricted utility
☐ Bad telecomms

Currently every sixth bank in Russia is a Visa Member, with Russian Members issuing approximately 150,000 Visa cards a month. Seven Visa Smart Debit & Credit (VSDC) issuers are certified in Russia:

☐ Ros Bank
☐ Avto Bank
☐ VUZ Bank
☐ Credit Ural Bank
☐ Bank Severnaya Kazna
☐ Master Bank
☐ Vozrozhdeniye Bank

A further eight banks will be certified by June 2003. Six VSDC acquirers are certified, with two more to be certified by June 2003:

☐ Ros Bank
☐ Alfa Bank
☐ Avto Bank
☐ Bank of Moscow
☐ Credit Ural Bank
☐ Vozrozhdeniye Bank

Also discussed was the Visa and Bank of Moscow joint project, the Moscow Social Card. The card being used is a Visa Electron magstripe/contactless and a pilot for 50k cards on the IBM JCOP30 card is being prepared.

The Social Card stores social number and personal data. The card can host corporate applications, such as transport system payment and medical insurance.

Conclusion

The conference was hugely enjoyable, and all of OpenWays' partners and customers had nothing but good things to say about the company. What impressed me most was the friendly atmosphere that seemed to exist between them, something that speaks volumes for the groups offerings and people.

HID Acquires Dorado Business

HID Corporation last month finalised the acquisition of the card and reader business of Dorado Products and says this will provide opportunities for new product innovations, growth, and services within HID's expanding RFID and contactless Smart Card access control businesses.

Denis Hebert, HID President and CEO, explained: "HID is the premier manufacturer of proximity, contactless Smart Cards, and Wiegand cards and readers. The addition of magnetic stripe products to our portfolio makes it easier for our customers to order all types of cards and readers from a single, trusted source."

Altech Takes Over NamITech

Altech Group has acquired NamITech Holdings, an information security firm specialising in Smart Cards, biometrics and cryptography, for R560 million from Nampak, South Africa's largest packaging company, who owned 51.08%. Altech, through this acquisition, will become the leading supplier of SIM cards, bank cards and secure solutions in sub-Saharan Africa.

Gemplus Gains Market Share

Gemplus has continued to gain market share with an increase to 32% of the Smart Card market. According to Gartner Dataquest's Worldwide Chip Card Market Share, 2002: Card Vendors and Semiconductor Vendors report, Gemplus led the chip card market in 2002 with 564 million Smart Cards shipped worldwide.

Clare Hirst, Smart Card analyst at Gartner Dataquest, said: "Gemplus continues to lead the market in an industry that is still recovering from market depreciation in 2000. Despite the highly competitive environment, Gemplus has actually gained market share over the past year from 30.4% in 2001 to 32% in 2002."

Alex Mandl, CEO, Gemplus, commented: "In 2002, we passed our 3rd billionth Smart Card, which confirms Gemplus' leadership position of providing nearly a third of all Smart Cards worldwide. We remain the leading provider of Smart Card solutions in the telecoms sector and in banking and financial services we have increased our market share to 22% despite delays with EMV migration.

"We anticipate a strong pipeline emerging in 2003 as banks move into the next phase of EMV implementation, along with new markets opening up around smart ID-based security solutions."

But Gemplus admits it is still in a period of transition and its first quarter 2003 report shows a net loss of €37.9 million compared to €62.5 million in Q1 2002.

Infineon Reports Losses

Semiconductor manufacturer Infineon Technologies reported a net loss of €328 million in Q1 2003 compared to a net loss of €40 million in the previous quarter and €108 million in the second quarter of last fiscal year.

Dr Ulrich Schumacher, President and CEO, said: "We achieved a very good revenue growth and gained further market share in a continued difficult market environment mainly driven by increased sales for memory products and repeated record performance of the automotive and industrial segment. We increased our productivity significantly, however we could not compensate for the dramatic price decline for memory products."

Board Appointment at ACG

Dr Reinhard Proske has been appointed to the Management Board of ACG Advanced Component Group. He will act as new COO responsible for the operative business activities and will also hold the position of Managing Director of ACG Identification Technologies. Dr Proske is founder and Managing Director of CircleSmartCard which produces chip card bodies and information carriers made of thermoplastic synthetics for the international market.

Aconite Appoints New Director

James Cronk, Head of Sales and Business Development at Aconite, a UK IT consultancy and software provider specialising in EMV, Smart Cards and enterprise security, has been promoted to Director of Sales, Marketing and Business Development.

VASCO Board Appointment

VASCO Data Security International has announced that John R Walter, former President and Chief Operations Officer of AT&T, has been elected to the Board of Directors.
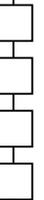
High Turnout at Infosecurity Europe 2003

by Jason Smith, Microexpert Ltd

In its eighth year, Infosecurity Europe 2003 took place in the Grand Hall of Kensington's Olympia. Running from April 29th to May 1st 2003 this event is Europe's biggest gathering of the worlds most renowned IT Security specialists and products, all under one roof.

This year there were over two hundred stands showcasing a range of new and existing products/services in their own unique presentational styles from cowboy ranches to card tricks. The event also consisted of seventy seminars and one hundred new product launches, all aimed at the information security industry. The show's exciting keynote line-up was launched by Dr. Stephen Marsh, Director of Security Policy. In his opening address Dr. Marsh gave an overview of the government's stance on today's IT situation. Over the three days the keynote topics covered issues such as calculating the business case for security and the latest legal and regulatory developments in information security. Seminars spanning two rooms also run in parallel to the keynote line-up and gave an insight into some of the hottest hot topics including security web services and identity management.

The emphasis this year for Infosecurity Europe 2003 was not just about the technology surrounding information security issues but more about the overall cost of ownership and the return on investment (ROI) that this technology can bring. The show's underlying massage was clear: information security is now a business issue, not just an IT issue. Nevertheless the event showcased a complete range of physical and electronic security solutions currently available to businesses and IT users. Several of these security related products used Smart Card based technology. Exhibiting in association with Novell and Crypto Solutions, Aladdin Knowledge Systems launched the next version of eToken, their unique, fully portable USB device for securing and authenticating individuals allowing them access to their networks or applications. Rainbow Technologies Ltd also demonstrated their security solutions NetSwift iGate and iKey under the banner 'Making Security Simple'.

NEC (UK) Ltd announced the launch of its Advanced Smart Card and Digital Identity Solution in the UK. The solution provides business employees with physical access control to buildings, authentication and a single-sign-on control allowing them access networks and applications.

SchlumbergerSema also launched a similar product, DeXa. Trust. This is a new network security solution, which provides a broad set of security administration services that enhance and simplify the identification and access management of complex enterprise networks. DeXa.Trust is part of the DeXa* Suite of Services for computing infrastructure solutions. Also part of this range of products is the DeXa.Badge* Secure Authentication Solution (SAS) which allows businesses to - through the use of Smart Cards - manage identities and control access to network and application systems through the use of Smart Cards. This control system is currently used across Nissan worldwide. The product itself won SchlumbergerSema the Best Biometric Solution Award at the Secure Computing (SC) Magazine Awards that were held on the eve of the Infosecurity.

This year's event has received its best attendance figures in years, with over 3,000 visitors on the first day and companies from fifty-five countries represented at the show. The show however did not go without any hitches. On it's opening day, 24 year old British born Lynn Htun, alleged head of hacking group Fluffi Bunni was spotted and arrested by Scotland Yard detectives. Htun and the Fluffi Bunni hacking group, who's distinct digital calling card is an image of a 'fluffy' pink bunny rabbit, are suspected of hacking into high-profile corporate websites and defacing them.

Exhibitors were also notified that the show's Ethernet network had come under attack from a Trojan called 'Deloader', which installs a backdoor on infected computers allowing remote access by the hacker. Exhibitors were advised on the infection virus and advised on its removal. However this just goes to show that information security issues are still a growing concern and can hit anyone at any time - even a large gathering of security professionals who are armed with all the latest security hardware and software. So the moral of the story is 'always be prepared by keeping your network and corporate information as secure as possible'.

Infosecurity also takes place in the USA, Belgium, Canada, Netherlands, Italy, Scandinavia, France, Austria and China. For further information go their official website at www.infosec.co.uk
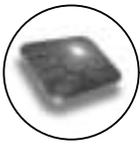
Planning for Successful EMV Migration

by Nigel Beatty, Senior Consultant, Aconite

Nigel Beatty

EMV fever is now taking hold in most areas of the world. Mandates for migration are fast approaching - 2005 no longer seems years away and minds are being concentrated in bank boardrooms across the globe. However, a headlong rush into EMV migration is likely to end in tears; potential benefits will not be realised and trouble will be stored up for the future. Although your deadline may now be visible on the horizon, a structured approach to EMV migration remains essential. Let's first get the mindset right. EMV is not about technology. EMV is not about backroom boffins doing curious things with Smart Cards. EMV is about opportunity. EMV is about harnessing a tried and tested technology to deliver your business objectives, now and in the future. A common attitude is that EMV migration is a necessary but expensive evil forced upon us by the card schemes to counter increasing fraud.

That misses the point. EMV is as much about implementing an infrastructure that opens up a panorama of new opportunities, and a structured approach now will pay dividends in the future.

Strategy is key. EMV provides the perfect opportunity for new strategic thinking about where you want your cards business to be in say five or eight years time. As part of that thinking you will need to consider both the direct impact of EMV and the longer-term opportunities. Direct impacts of EMV will allow you to redesign your product portfolio, to further segment your existing product set, to address new and expanded populations of cardholders and merchants and to set new objectives for market share and revenue, driven from increased card and transaction volumes. These benefits stem from the security and risk management built into EMV and within card scheme guidelines, they are a toolkit; select and use the features you need.

For example:

☐ Risk management and usage parameters determine the card's behaviour - control where and how individual cards can be used.

☐ Target higher-risk cardholders for more frequent on-line authorisation.

☐ Card payment in many new or previously fraud-prone scenarios such as unattended petrol stations and other vending outlets is enabled by secure off-line card and cardholder authentication; more terminals, more transactions, more revenue.

In the longer term, the EMV/Smart Card platform opens up many new opportunities, both within and outside the payments field. Prime examples are multi-application cards, remote authentication and secure transactions over new channels such as Internet and GPRS. But the foundations for these services must be laid firmly now, and laid in a way that builds in future proofing. Among the areas where future benefit will be seen are:

☐ Value-add applications, which may or may not co-reside with payment; the examples are familiar: loyalty, healthcare, ticketing, mass transit etc.

☐ Secure authenticated access to services such as e banking, and secure card and cardholder verification for remote transactions in virtual (e-/m-commerce) and physical (mail and telephone order) channels.

☐ Application synergy to create the 'can't live without it' card; there may not be a single killer application, but the right combinations can create some very powerful propositions.

However, neither strategic thought nor any other migration activities will be possible unless the potential and the capabilities of the infrastructure are understood. Therefore education becomes an important pre-requisite; the impacts of EMV will be felt across the organisation from senior executive to call-centre operator, with major IT impact in between. It is essential to acquire the necessary knowledge, but beware; the world may be full of self-proclaimed EMV experts but real track record is thin on the ground.

With a strategy in place, business justification and definition of requirements can proceed. It is a truism to state that the business case for EMV is hard; it may be possible to justify migration on fraud reduction alone or to write off the cost as necessary for staying in business, but that ignores the benefits that taking the longer view will reveal. By their nature, infrastructure projects do not provide quick returns, but the bottom line will look healthier over a five to eight year timeline. Again, with expert help both the future benefits and the perceived costs can be validated and quantified to contribute to a robust and defensible business case.
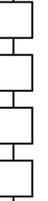
Translation of strategy into tactical plans first requires the definition of business requirements, remembering that EMV migration is business-led. The broad scope of the business impacts means that a comprehensive set of requirements, addressing multiple areas, will most likely have to be assembled, and therefore consistency and cohesion will require careful checking. The far-reaching impacts mean that analysis, identification and quantification of change in all areas of the business must precede planning. This Impact Analysis is one of the critical activities of the migration, not only to confirm elements of the cost base used in the business case, but also to flush out the requirements for the development phase.

Not only will signed-off business requirements enable internal planning and technical/functional specification, external requirements for third-party vendors can be developed. Depending on your organisation's procurement policy - buy or build - these could encompass card personalisation, card management, devices, authorisation processing, risk management, EMV script management etc. Recognise that lead times are multiplied in the Smart Card world and ensure that you have the expertise available to validate vendors' claims. Certification of cards and devices, for example, is often given on a conditional basis. EMV support in authorisation systems may be specific to one card/application implementation or may be based on a single customer's requirements. Such a system could be EMV compliant, but would it provide the features you need? To be avoided at all costs is a requirement that deviates from the de facto standards, particularly for EMV payment applications developed by the major card schemes. All vendors have standard product that is compliant with VIS, the Visa Implementation Specification and/or M/Chip, the MasterCard equivalent at off-the-shelf, mass market prices; a customised application will be an expensive and time consuming exercise and the benefits of going that route had better be substantial for the business case to stand up.

Vendor commitment to delivery is just one aspect of project planning. Experience in the field of EMV implementation will be required to allow accurate estimation of tasks and activities that are either new and unique to a Smart Card/EMV implementation or radically different in scope to their magnetic-stripe equivalents. The plan needs also to identify and take account of lead times for new development and testing resources such as test card and tools. For example, test cards go from being a €0.30 throwaway item in the magnetic stripe world, to maybe a €10+ expensive resource in the Smart Card world with a six week lead time. The complex bit-strings that make up most EMV data need specialised tools for their creation and interpretation.

Careful monitoring during the development phase will help to avoid an unpleasant Smart Card fact of life: mistakes cost more to rectify. The complexity of the components - cards, devices and systems - means that backing out of a wrong turn will be expensive and probably involve throwing away irretrievable work. If a batch of cards is delivered with incorrect settings, this is a potential disaster, both in cost and reputation terms.

Hence the need for comprehensive and rigorous testing; another area where there is a significant increase in scope when compared to a magnetic stripe implementation. Estimates have put the increase in test conditions at between four and eight-fold. That would be bad enough, but a recurring theme is that without the expertise and the specialised resources available, you cannot begin to specify those test conditions, let alone to plan or execute the tests. Another trap to avoid is the certification blind spot. Just because a card or device has scheme or EMVCo Level 2 certification does not mean it will work in your environment - there is no guarantee that functions outside the scope of these certifications, such as message protocols, have been implemented correctly.

With testing signed-off, card scheme certification comes next. While the procedures for the major schemes have not changed significantly, i.e. run scripts against the scheme simulators, submit the logs, perform on-line tests against the scheme test system, exchange clearing files then move into a live proving exercise, the procedures for many smaller, possibly national schemes have yet to be defined. In the UK, for example, the LINK national ATM network has been at the forefront of developing certification plans and processes; other national schemes may not be as advanced.

Finally we come to implementation and roll out. Again, careful planning is required - many pieces must come together to make implementation successful. Worth particular mention is the security and key management set up between a card issuer and their personalisation bureau, entailing generation of live keys, submission of keys to the card scheme Certification Authority and storage of certificates. An error at this stage will totally undermine the card issuance programme and prove costly to correct.

Even though a huge effort and great expense will have gone into your EMV migration, do not be tempted to invite the television cameras to watch the CEO perform the first EMV transaction. That's really asking for trouble. Instead, keep the initial rollout low key and in a controlled environment, and only blow the trumpet when things have had a chance to bed down. In summary, EMV migration is a complex process. There are many new and unfamiliar areas to be managed, and without expert help, there are many pitfalls awaiting the unwary and the inexperienced. Good Luck!

□ **About the Author**: Nigel Beatty is an experienced business consultant with a broad and extensive knowledge of the payments industry. He has worked with clients providing consultancy at senior levels within some of the UK's leading financial institutions and has particular expertise in the area of EMV Smart Cards. Nigel works with clients to develop strategies, define business cases and deliver solutions throughout the electronic payments industry. Nigel Beatty - Senior Consultant, EMV and Smart Cards, Aconite.
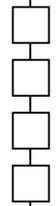
Overview of CTST, Orlando Florida

by Patsy Everett, MD, Smart Card News Ltd

Patsy Everett

Now in its thirteenth year and under the new ownership of Thomson, CTST proved to be a tired show in dire need of a re-think.

CTST was held in Orlando, Florida, 12-15 May, the perfect location for delegates and show visitors to bring their families and make a bit of a holiday of the trip. Unfortunately because of fears of terrorism and the SARS virus, or perhaps because it cost $149 to enter the exhibition, the numbers of visitors and exhibitors was considerably down. There were only 215 exhibitors. There were some very obvious big players in the industry missing from the exhibition hall and most of the visitors appeared to be vendors who had decided not to exhibit and who were doing their own thing on the side.

However, some things never change, and for some unknown reason the lunch boxes were still in evidence and were just as unappetising as they ever were. There were also no biscuits for the delegates to go with their coffee. Shame.

Gemplus did not exhibit this year, which was not really a surprise, but they did have a meeting room, as did Infineon and Hypercom. IBM and Microsoft were absent, as were Oberthur and Visa, but these two companies threw smashing parties for invited guests. A number of companies shared stands,. Among these were ActivCard, DNP and Bell ID.

Atmel, Datacard, Philips, JP Morgan and MasterCard had large, impressive stands but whether they will downsize or even bother to exhibit next year is in question. The companies who decided to do their own thing alongside the show obviously reaped some benefits but would their events have been so successful without the show being in town?

At the CTST show last year it was advertised that the 2004 show would be held in Hawaii, but they have now changed the venue to Washington DC. This is probably to attract government interest as this appears to be where all the big schemes are coming from worldwide. A rumour doing the rounds was that the French conference and exhibition CarteS was thinking of doing a US show next year. A couple of companies I spoke to were seriously thinking of exhibiting at the RSA conference in San Francisco, but to exhibit at this show is even more expensive.

There was very little exciting news coming out of the show. Olivier Piou, the new chairman of Eurosmart announced their Smart Card figures which showed that the industry is still growing and should be more optimistic. Telecomms is still the largest market, up 10% with 430 million microprocessors shipped, followed by banking and retail up 16% to 175 million, with the total microprocessor shipments growing by 17%. Europe, the Middle East and Africa are still the largest markets, followed by Asia and the States.

MasterCard arranged a tour of retailers so journalists could experience their successful Contactless Pay-Pass trial, which is in its fourth month and has been extended to September. MasterCard have issued 16,000 Pay-Pass cards, which can be used in sixty outlets and are now working with Nokia to incorporate PayPass into their mobile phones. The OTI Saturn reader and SMART Antenna Merchant Solution is currently being used as it will connect to a retailer's existing POS terminal, so reducing time to market and implementation costs.

MasterCard and Visa announced that they were jointly working together to develop a common standard for the personalisation of EMV applications such as M/Chip and Visa Smart Debit/Credit (VSDC). The standard is due to be published next month and will be known as the EMV Card Personalisation Specification under EMVCo.
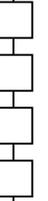
Visa and Datacard are working together to offer member banks a turnkey Smart Card personalisation solution to streamline EMV migration. Datacard is the first to join the 'Visa Smart Breakthrough Turnkey Personalisation Program' aimed at member banks that want to control the personalisation process in-house.

Schlumberger Smart Cards launched its cheqFlex, a Smart Card payment solution that is managed through standard protocols between a retailer POS and their back office for pre-authorised debit payment.

Sharp announced that they had selected the MIPS 32-bit 4KS core family for development of next-generation micro-controllers for secure data applications. Under the agreement Sharp will combine its 1M-byte flash memory with licensable 32-bit cores, the 4KSc and 4KSd cores, this will enable multiple applications with high security on one card.

Global Platform made a number of announcements. One was a new Global Platform Card Security Requirements Specification. They also announced that they had defined a standards interface for the exchange of data between a personalisation data preparation system and a personalisation bureau also that they had launched the GPD/STIP Simulator, developed by Trusted Logic. Developed to educate terminal manufacturers in asynchronous event orientation as specified by the Global Platform Device Committee.

ASK confirmed that they had shipped 1.7 million Contactless C.labels to the seventeen public libraries in Marseilles, France. The libraries use the RFID technology to manage, track and secure their inventory of over 1.5 million items. Another 1.7 million contactless cards had also been shipped to public transport associations in Germany. ASK provided the cards to cards.etc AG that are the general contractor and manager of the project. Whilst at the show ASK launched C.scan, a handheld RF reader for use with Contactless smart labels.

Banksys unveiled their latest range of unattended terminals for gas stations. They also presented their Data Encryption Peripheral/Peripheral Component Interconnect DEP/PCI that secures the generation, storage and use of cryptographic keys for a number of applications running Windows NT or Linux.

On Track Innovations (OTI) announced the development of a reader to be used at the Loews Universal Cineplex in Orlando, a movie theatre multiplex, which can read a cardholders MasterCard PayPass through the glass window of the payment station, so the card never leaves the customers hand.

Inside Technologies introduced Accesso, a low cost multi-standard Contactless USB PC reader. The reader acts as a security module between the transponder or another contactless reader coupler and the host and is used as a serial port extension for data communication. Inside Technologies were also showing a biometric secure passport. Working with Fasver, a security printer and IER a system integrator they have developed a Biometrics-Enabled Machine Readable Travel Document called IFI, Intelligent Film for Identification.

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Datastrip announced that its 2D Superscript two-dimensional bar code is being used as the core technology on the world's first biometric seafarers ID card to be rolled out later this month by the Liberian International Ship and Corporate Registry (LISCR).

IR Recognition Systems, the biometric part of Ingersoll-Rand Security and Safety Group's Electronic Access Control Division (EACD) announced that Digex, a web and applications hosting service, were using IR's HandReaders to access offices and rooms at their locations in the US and UK. The readers authenticate the users by hand size and shape.

Sagem and Cognitec Systems announced their agreement to let Sagem have access to all aspects of the face recognition technology developed by Cognitec, whilst Thales has published a free impartial guide to EMV called EMV- Easy Migration Guide, available on their website.

Atmel introduced a new low cost cryptoRF wireless device for contactless Smart Cards and industrial RFID. The CryptoRF is available with 1K to 64K bits of memory, security and cryptography and is fully compliant with ISO/IEC 14443 for 13.56 MHz Type B ID cards and is available now. Atmel also had on display its FingerChip fingerprint-imaging sensor. The entire finger is imaged by sweeping it across the FingerChip; it is also the only self-cleaning fingerprint sensor on the market.

Spartanics claimed to be the only company that produces single run, total card inspections every time, using their Spartanics 930 card Inspection System. The system monitors the card size, has a smart self-learning system, automatically compensates for variations in card position or thickness, allows on-line changes and more. Spartanics also have the world's best production output at 165 strokes per minute for their die cutting and punching system.

Fargo Electronics announced a partnership with HID Corporation to expand the encoding capabilities of Fargo printer/encoders to include support from HID's iCLASS contactless Smart Cards.

ViVOtech, a Contactless payment solutions provider announced that it had received certification for ViVO-pay with Global Payments Inc, an electronic payment card and cheque processing provider. They have also published a free white paper on RF based contactlesss payment: 'A More Convenient Way to Pay' available at www.vivotech.com/white_paper.

Plastag have produced a long life card, TuffCard, an advanced polyester/PVC composite material, which can withstand over 250,000 flex cycles. They have also developed a security foil under the lamination substrate to prevent scanning or reproduction.

Finally Datacard made a number of announcements. They have produced a new model 9000 series that will prevent 'skimming'. The Magneprint module records a fingerprint or noise signature from each magnetic stripe during the card personalisation process. The module stores the fingerprint as a data pattern in an audit trail or database. They also announced that they would be making available a contactless Smart Card personalisation module for the 9000,7000 and 500 series card issuance systems in the autumn as well as a secure instant card issuance system and a universal Smart Card platform for personalisation of RFID cards. They also announced that their SP35 card printer sales were up 300%.

CTST will take place next year in Washington DC during April.

For more information contact ...	
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Atmel ☎ +1 719 540 1724	**Banksys** ☎ +32 2 727 6822
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Optimistic Forecast from Schlumberger

Schlumberger Smart Cards and Terminals, the biggest supplier of microprocessor Smart Cards, has released its annual Smart Card analysis showing that after a year treading water, shipments of microprocessor cards surged back into double digits with a 13% rise in 2002. Corporate badge and public sector ID card projects have started to materialise and could become significant volume markets - joining existing heavyweight mobile communications and banking segments.

In **mobile communications**, subscriber churn and major expansion in China, India and Latin America have contributed to a return to steady growth for SIM (Subscriber Identity Module) cards - the largest application sector for Smart Cards. After the shock of an 11% decline in 2001, shipments grew 13% in 2002. While Schlumberger expects no return to the dramatic growth rates of the past, it predicts that in 2003 the number of units shipped will increase by about 7% this year and well over 10% for the next two years, with annual shipments exceeding 500 million for the first time in 2004.

A significant development has been the dominance of the Java Card platform for high-end SIMs. Java Cards already account for virtually 100% of the high-end SIM market. Schlumberger also expects strong shipments of 64K cards in 2003, and reasonable volumes for new 128K cards.

Evolving 2.5 and 3G networks are seen as key drivers for the future SIM market, and Schlumberger expects order volumes for individual USIM projects to run into millions during 2003.

Major drivers for last year's growth (17%) in the **banking sector** included the strong renewal of e-purse cards in Benelux, the roll-outs of UKIS cards in the UK and multi-application banking cards in France. The business case for EMV migration had strengthened but there was still no clear standard and proprietary card operating systems still dominated with Java Card and MULTOS apparently failing to win bankers' hearts and minds.

"We face long migration cycles, but thanks to the proactive role of international bodies like Visa and MasterCard, we expect a boom in financial Smart Card deployment that really takes full advantage of the facilities offered by multi-application cards and in-the-field upgradability," said Claude Dahan, Vice President and General Manager, Schlumberger Smart Cards.

Volumes of **corporate badges**, which allow secure logical and physical access and Smart ID cards for public sector applications were currently small, but volumes could be very significant in a few years, notes Schlumberger. In Europe, for example, both Belgium and Italy have already launched tenders for ID and Health cards, and virtually every other country is looking at the technology. Activity is also significant in Asia, where initiatives include a driver's license card in India and a national ID card program in China.
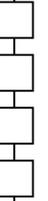
In **transport**, shipments continue to grow with strong double-digit rises with forecasts for both 2003 and 2004 of at least 25%. Constraints on growth are imposed by the large number of contactless radio frequency technology standards that are used for electronic tickets, and the fact that most projects are tied to a specific environment.
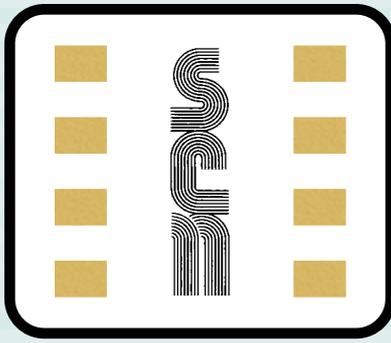
The market for memory card-based **payphone cards** fell by 5% in 2002 due to the increasing penetration of mobile phones. This sector still accounts for well over half of the industry's total shipments - over a billion units in 2002 - but only for a small portion of its revenue: less than 10%. The big players in the Smart Card market are gradually withdrawing from this segment, converting their production and delivery capacity towards higher-end cards.

The technology of Smart Cards is now highly sophisticated and is moving inexorably towards becoming part of the standard computer systems framework. **Standardisation** will continue to be critical, and developments such as USB interfacing and the recent NETInternet card initiative - which adds a common language infrastructure for easy integration with multimedia appliances - are pointers to the industry's future direction. Jean-Claude Deturche, Vice President, marketing, Schlumberger Smart Cards, said: "Standardisation continues to be a key challenge, and a recipe for the future success of the industry.

Website

⌨ www.slb.com