

www.omnitek.com

## OmniTek

OmniTek are a card and reader manufacturer in the United States. Their website carries a strong brand identity and colour scheme, although confusingly the eye is drawn to the very dominant logo for Honeywell, OmniTek's parent company. Navigation is hindered somewhat by the use of a distracting Flash animation which takes a moment or two to respond, but once into the requested pages there is a lot of useful information. The product section contains detailed descriptions and specifications, although there is some repetition of content as the product lines are also described in the 'Company' section. Interestingly, these pages are distinct from the main site in that they do not carry the standard navigation buttons used on the front page, which tends to break the spell of uniformity. This is a slightly confusing website, but it will please visitors looking for technical specs in a fairly easy-to-read format.

- Navigation
- Content
- Appearance



www.acs.com.hk

## Advanced Card Systems Ltd

A frustratingly poor front page greets visitors to ACS, a card reader manufacturer in Hong Kong. At first glance the site appears to be based around not one, but two Flash animations, which is alarmingly becoming the software of choice in modern website design. The first animation is a blink-and-you-miss-it Flash-based splash screen with rather tinny music, and the second is the website proper. Poorly optimised Flash navigation graphics are almost illegible, as are the semi-transparent dropdown menus. However, once past the second front page, the Flash navigation is dropped altogether, and the website is suddenly much clearer and easier to use. The product pages are beautifully designed and very informative. The accompanying photography is well executed and the technical info text is presented in colourful boxouts, which provide much needed separation from the PR. An altogether better user experience than the opening pages would have you believe, visitors would be well advised to persist, if only to admire the excellent uncluttered layout.

- Navigation
- Content
- Appearance



www.emvelink.com

## Smart Technology Solutions

Although your reviewer has in the past bemoaned the prevalence of blue in corporate website design, he is pleased to note that STS has created a surprisingly attractive website, which floods the page in blues of several hues to great effect. Although content is rather thin compared to the number of pages, the text is pithy and informative, proving that 'less is more' is a definite advantage on the web. History buffs will like 'Our Story', a light ten-page presentation which explains the background to the company in friendly, uncomplicated language. The main function of the website, however, is the Emvelink software, the functions of which are explained clearly and concisely, and illustrated with a simple diagram. A related site by STS explains Chip and PIN technology which, apart from the excellent writing, is also an excellent lesson in compact, usable design.

Highly recommended.

- Navigation
- Content
- Appearance



# Plans for Congestion Charges and Road Tolls Across the UK

The UK government is planning to extend congestion charges and road tolls across the country in what has been described as the biggest shake-up in motoring history.

Cameras and satellite technology could be used to track cars via transponders fitted to cars with motorists being automatically charged for using busy routes. Those using cars during peak traffic periods would be charged extra taxes.

Apart from hitting commuters and motorway users, parents taking their children to school will also be charged. Figures reveal that a fifth of all cars on the roads from 8.30am on weekdays are taking children to school causing chaos in many areas.

Alistair Darling, Transport Secretary, said: "We ought to look at the opportunities that are now being presented to us with new technology in order to deal with the pressures we face."

However, the implementation of large-scale changes to the way UK motorists use the roads could be ten years away. But, in the meantime, it is already planned to introduce satellite tracking to charge freight firms for using roads in 2006.

Critics and motoring groups predict a backlash from long-suffering drivers if the plans are adopted. A spokesman for the Automobile Association commented: "Motorists will not be happy with these proposals because they will look at it as nothing better than another tax, a stealth tax if you like, on the already overburdened motorist in terms of taxation. Now if there were to be some reciprocal measure then motorists may be more in favour of such proposals."

Indeed, to counter opposition, the government may offer a 'sweetener' by cutting tax on petrol and reducing or even abolishing the current road tax.

The London congestion charging scheme introduced last February has reduced traffic in the centre of the capital by up to 37%. Under the scheme, drivers pay a £5-a-time congestion charge. However, critics say introducing similar schemes to other major cities in the UK would require local authorities to make huge improvements to public transport as people were far more dependent on the car for their work than those in London where 86% of commuters used public transport before congestion charging was introduced.

## Website

 [www.dft.gov.uk](http://www.dft.gov.uk)

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## £4m English Smart Card Project

A £4 million National Smart Card Project for the development of Smart Card policy and technology in England was launched in London last month.

The government-funded project, a partnership of local authority forerunners in the use of Smart Card technology and organisations, including government departments, aims to promote, develop and implement the use of Smart Card technology by local authorities.

It is planned to use the funding to explore a whole range of issues surrounding the expanding use of Smart Cards and their benefits to citizens.

The aim of the project is to establish a national framework for the development of integrated Smart Card technology that helps improve the quality of life of citizens by making local services more accessible, convenient, responsive and cost-effective.

Currently there are a number of Smart Card initiatives taking place across the country to provide citizens with services tailored to their needs. The national project will take experience and development from these initiatives to establish Smart Card services that work, regionally, nationally and even internationally.

The project will:

- Look at the business case for Smart Card technology including social, political and commercial aspects;
- Pilot new ideas and concepts for Smart Card technology and validate previously trailed work;
- Identify and establish Information Communications Technology links within the European community;
- Publish a best practice guide for local authorities, government and other organisations in the use of Smart Cards in local government;
- Identify the links and involve all the relevant government departments in the delivery of Smart Card services;
- Identify the legal issues and ensure Smart Card activities are legal and acceptable;
- Produce a Smart Card starter pack that can be used by all local authorities to deliver quick and cost-effective Smart Card schemes;
- Offer support to local authorities developing Smart Card initiatives;
- Share information and experience through the National Smartcard Networking Forum.

Helen Style, Programme Director for the National Smart Card Project, Senior Advisor to the Office of the Deputy Prime Minister and Head of Policy Development at Bracknell Forest Borough Council, said: "The local authority partners on this project have been at the forefront of developing the use of Smart Card technology for the benefit of citizens for some time.

"The announcement of this funding for the National Smart Card Project means that our experiences and those of similar organisations can be brought together to expand the possibilities for Smart Card technology across the country and beyond."

Partners in the project are: Bracknell Forest Borough Council; City Councils of Sheffield and Southampton; County Councils of Buckinghamshire Cambridgeshire and Cornwall; The North East Regional Smart Card Forum; London Connects; Newham London Borough Council; Metropolitan Borough Councils of Bolton and Doncaster; The Royal Borough of Windsor and Maidenhead; West Midlands; Association of Councils in the Thames Valley Region; North West e-Government Group; National Smart-card Networking Forum; Office of the Deputy Prime Minister; Local Authority Smart Card Standards e-Organisation; The ALCO Partnership; ITSO; Department for Education and Skills; Department of Transport; Department of Health; Office of the e-Envoy and the Home Office.

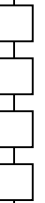
## Renesas Ships 500 Millionth IC

Renesas Technology Corp. has shipped its 500 millionth Smart Card chip to manufacturers around the world. The devices are all microprocessor-based chips that are used in a range of applications, including GSM SIM and USIM cards, financial and other banking cards, and health and ID cards. The company is the world's number two Smart Card IC manufacturer having recorded a 20.3% growth in unit shipments over the last year.

The company is a joint venture between Hitachi and Mitsubishi Electric Corporation and headquartered in Tokyo, Japan.

## Ohio Food Stamp Card Continues

Ohio State in the US will continue to use a food stamp Smart Card system that is the most expensive in the country following a 5-2 vote by the State Controlling Board to award an unbid \$44 million, two-year contract. Governor Taft's administration sought the





deal for Citicorp Electronic Financial Services of Chicago, arguing that competitive bidding could lead to even higher costs.

Wyoming is the only other state to use the Smart Card. Other states use magnetic stripe cards that work in stores' existing card readers. State Senator Ray Miller voted against the system, saying it did not make sense to pay twice what other states pay.

## Legic Cards for Airbus

Legic Identsystems, headquartered in Switzerland, has announced that Airbus is using its contactless Smart Card technology for employee company cards. Based in Toulouse, France, Airbus is a leading aircraft manufacturer and operates 16 development and manufacturing sites across four European countries as well as several subsidiary companies worldwide. Ownership is split between EADS (80%) and BAE Systems (20%) and the company has over 46,000 employees.

## Parking Added to Travel Tickets

Commuters in the San Francisco Bay Area Rapid Transit District (BART) will be able to pay for parking with the same ticket they use for BART trains and buses under a new \$2.2 million upgrade contract awarded to Cubic Transportation Systems.

Cubic's technology will allow commuters to pay for parking with both magnetic tickets currently in use, and it will also support contactless and dual mode Smart Cards from any source meeting international standards.

## Gosforth Park Loyalty Card

Gosforth Park Raceway in South Africa is to launch a 128-bit EMV reloadable loyalty card, called the Hand-e Card, which will enable patrons to pay for meals, buy accessories, go for go-kart rides, enter the pits, be part of the lucky draws, reserve their seats and outside the Park they will be able to use the card at selected retailers and service providers.

## Seventh Gemplus Site Certified

Gemplus has completed the EMV certification of its latest personalisation site in Herne, Germany, bringing its total certified sites to seven. The other sites are located in the UK, France, Japan, Singapore, Mexico and Malaysia. GemSense, Gemplus' personalisation solution, is used in all of its centers world-

wide and, working to capacity, can process as many as 16 million EMV cards in twelve weeks.

## Contactless C.labels for Libraries

ASK has started shipping 1.7 million C.label contactless smart labels to the 17 public libraries of Marseille. Working with Cyernetix and Tyco/Sensormatic France for the Electronic Article Surveillance and anti-theft system, ASK has deployed an RFID Automated Library Management System.

The libraries use the system for managing, tracking and securing their entire inventory of over 1.5 million items such as books, CDs, audio cassettes, video cassettes and DVDs each of which has a C.label. The 150,000 borrowers have a contactless C.ticket card which enables them to borrow or return assets within a split second just putting down the items and the card on the reader, a self-service terminal developed by ASK. An anti-theft detection gate at the exit with a one-meter range detects items that have not been checked out and activates an alarm.

## New Smart Card Alliance Members

The Smart Card Alliance has announced 26 new members. Identix, Samsung Electronics, Unisys Corporation and XTec joined at Leadership Council level. New government members are the Transportation Security Administration, NASA, Navy e-Business Operations Office, Metropolitan Atlanta Regional Transit Authority and Exponent. Other new members are: Alegria; BearingPoint; Booz Allen Hamilton; Cherry Electrical Products; Datatrac Information Services, Dawar Technologies; ImageWare Systems; Integrated Engineering; MartSoft; Omni-Tek; Precise Biometrics, RSA Security; SC Solutions; TDK Electronics; Vivotech, X-ident Technology and Zebra Tech Corp.

For more information visit ...



### SmartCard Networking Forum

[www.scnf.org.uk](http://www.scnf.org.uk)

### Renesas

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

### Legic

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

### Cubic

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

### Gosforth

[www.gosforth.co.za](http://www.gosforth.co.za)

### Gemplus

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





## EMV Card Personalisation Spec

MasterCard and Visa announced at the CardTech/ SecurTech Show in Orlando, Florida, last month that they are jointly working to develop a common standard for the personalisation of EMV applications such as MasterCard's M/Chip and Visa Smart Debit/Credit (VSDC). Called the EMV Card Personalisation Specification it is expected to be published this month under the auspices of EMVCo.

Smart Card personalisation represents a significant cost component in the production of EMV Smart Cards. Compliance to the specification will be recommended rather than mandated, but it is anticipated that the specifications will be broadly adopted by card issuers and personalisation providers because of the benefits offered to all parties involved.

## EMV Gathers Pace

Meanwhile, the transition to EMV chip cards globally is continuing with pilots in France, Ireland, South Africa, Switzerland, Taiwan and the UK.

A new EMV EPOS pilot in **France** was launched last month at Les Longchamps Intermarché store in Rennes, where 70% of payments are made by card. The first international EMV transactions in a multi-lane environment were made, using Visa chip and PIN cards issued in the UK. The payment solution was developed by WYNID Technologies, a partner of Thales e-Transactions.

The pilot is being held under the Visa EU Region EPOS EMV project, which is promoting EMV card payment solutions for EPOS systems to large merchants throughout the EU. Several EMV pilots using the same solution (eight locations with a total of 150 lanes) are running at Intermarché stores, in collaboration with the French banks.

Bill Dunn, Senior Vice President, Visa EU said that France played a significant role in Visa EU's chip migration strategy having to change from existing B0 chip standards to EMV specifications.

Oberthur Card Systems has been awarded an exclusive three year contract by Allied Irish Bank in **Ireland** for the migration of its bank card credit and debit products to EMV specifications. Oberthur will provide AIB with an end-to-end service encompassing Smart Card manufacture, initial personalisation and fulfilment, and professional services, working towards pilot and roll-out in 2004.

Standard Bank in **South Africa** has licensed ACI Smart Chip Manager to issue and manage a large volume of Smart Cards to meet the issuing requirements of EMV and is currently testing the solution locally and internationally.

Dr Alewyn Burger, Executive Director of Standard Bank, said: "ACI's Smart Chip Manager allows us to begin issuing credit-based single application chip cards and acquiring transactions from them — and then expand our offering to multiple-application cards when it is appropriate for our customers and when the market is ready."

A joint project by acquirers to implement the EMV specifications throughout **Switzerland** is underway. CCV-CardPay, a VeriFone International partner, has successfully deployed its first VeriFone Omni 3740 terminals and SC 5000 programmable Smart Card PINpads at leading retailers in Zurich for the pilot.

Welcome Real-time has announced that Taishin Bank has selected its XLS smart transaction platform to boost the launch of their EMV cards by the end of the year. Taishin Bank issues over 3.5 million cards and is the second largest local card issuing bank in **Taiwan**.

"Our magnetic stripe-based credit cards are due for replacement to EMV. We decided to leverage this migration and unlock the value of our EMV cards, with another application like loyalty," explained Daniel Tsai, President of Taishin Bank.

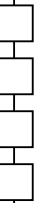
Chip and PIN transactions are now taking place in Northampton in the **UK** where 150,000 people (over half the town's adult population) will receive the new cards from their banks.

"The trial is the first phase of a massive nationwide programme which will see more than 850,000 retailer terminals, 120 million cards and 40,000 cash machines upgraded over the next eighteen months," said Sandra Quinn, Chip and PIN Programme spokesperson.

## DNA Chip Technology

Applied DNA Sciences, a provider of proprietary DNA-embedded security solutions that protect corporate and intellectual property from counterfeiting and fraud, has combined DNA biotechnology and micro mechanisms to create an all-new security and authentication system.

The Applied DNA Chip card is intended for both





authentication of the card and identification of the individual and the company plans to market a security access system to North America and Europe.

A set of DNA chip cards are assigned with specific DNA (group ID), along with the individual's identification information and recorded in the chip's memory. A reader module is configured to recognise (and therefore verify) only the chip carrying the correct group ID. Any DNA chip card with a different group ID will be rejected.

The chip uses non-human, natural plant DNA, with each user group having the same DNA code. Individuals are differentiated in the system by identification codes stored in the chip's memory. If the embedded-DNA chip is sabotaged or removed the chip will cease functioning, thus preventing data on the chip from being duplicated. An LCD display screen provides immediate visual verification/authentication by reading the unique DNA signals embedded in the chip.

The company claims that the cost of the Applied DNA Chip card and reader system is comparable to existing Smart Card systems.

## Web-based Biometric ID System

Identix demonstrated its new ABIS (Automated Biometric Identification System) at the CardTech/SecurTech show in Florida, USA, last month. A Web-based enterprise-level facial recognition matching platform it is designed for the delivery of large-scale identification solutions for government, law enforcement and commercial users with millions of records to manage.

ABIS is accessed through a standard Web browser or a thin client interface and provides various functionalities such as enroll, search, delete, etc. in an easy to use application programming interface (API).

Dr Joseph J Atick, President and CEO of Identix said: "ABIS is primarily targeted at entities such as passport agencies, interior ministries, and motor vehicle agencies that face the daunting task of sifting through millions of images to find duplicates prior to issuing an ID, as well as law enforcement agencies that rely on facial searches for investigations and mug shot booking."

## Secure-Travel Project

Gemplus has been selected to supply Smart Card technology and expertise to the S-Travel (Secure-Travel)

programme, an initiative sponsored by the European Commission and the Swiss Office for Education and Science to address air travel security issues raised by the events on Sept 11.

The project, which is led by SITA, provider of IT services for airlines and airports, and sponsored by IATA (International Air Travel Association), aims at defining and developing international security standards and procedures based on Smart Cards and biometrics to better identify frequent travellers, enhance traveller convenience, and ultimately improve security of the global air transport system. Trials will start at European airports this year.

## Biometrics at London City Airport

London City Airport has become one of the first in Europe to establish biometric security access for its 1,600 employees. Initially the system will only be used for staff, although it could be rolled out to passengers, said Jenny Lloyd of London City Airport.

The system, designed by identity management company Daon, uses fingerprint recognition and a photo ID card to identify a unique data pattern for each scan. Actual fingerprints are not stored to preserve privacy.

"It will make this airport one of the most secure in Europe," said Oliver Tattan, CEO of Daon. Scanners now control access to all areas of the airport. Those entering restricted zones pass a Smart ID over an electronic reader and then have their biometric finger template checked to confirm their identity.

For more information visit ...



**EMV Co**

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

**WYNID Technologies**

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

**Visa EU**

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

**Oberthur Card Systems**

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

**ACI Worldwide**

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

**CardPay**

[www.cardpay.ch](http://www.cardpay.ch)

**Welcome-Realtime**

[www.welcome-rt.com](http://www.welcome-rt.com)

**Mission of Applied DNA Sciences**

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

**Identix**

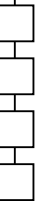
[www.identix.com](http://www.identix.com)

**Gemplus**

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

**Daon**

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





## Growth in Java Card Usage

Java Card products in digital identity solutions have grown over 400% during the past year, according to data from Frost & Sullivan. Expanding on its traditional customer base in the financial services and wireless markets, Java Card technology usage has experienced tremendous growth in government, military, healthcare and corporate ID markets around the world.

Government agencies are currently issuing Java Card technology-based Smart Cards as their new identification cards, for example, the US Department of Defense's Common Access Cards being issued to 4.3 million active duty US military personnel and eligible contractors. Also, the Government of Taiwan is issuing a Java Card technology-based Smart Card as its new health insurance identification card to all 24 million residents.

## Future of mPayments

Payments by mobile phone, mPayments, have failed to live up to bold predictions made just a few years ago, according to a new briefing by Datamonitor which blames the lack of common standards and an array of different solutions that have confused consumers. However, with mobile phone penetration nearing saturation, mobile operators need mPayments to succeed more than ever.

The report says that the most successful business models will be based on strong partnerships between banks and mobile operators and predicts that Mobipay and paybox will be the dominant players in the European mPayments market over the next few years.

## Australian Tax Office Trial

The Australian Taxation Office is testing multi-function Smart Cards that could eventually combine photo ID, building access and secure logon for the organisation's 21,000 staff.

## Baghdad Contract

A contract to supply a GSM mobile phone network to cover Baghdad, Iraq, has been awarded to MCI by the US government. The incoming Iraqi government will decide who is to get the contract for the whole of the country.

## Driving Criminals Off The Road

Police Forces across the UK are to adopt Advanced Number Plate Recognition (ANPR) systems in a bid to "drive" criminals off the roads. In a successful pilot, the police haul included £100,000 in drugs, 300 stolen vehicles worth over £2 million, £715,000 in stolen goods and also made 3,000 arrests.

The government initially put £4.65 million into the scheme and the extended pilot, which will run until December 2003 across 23 police forces in England and Wales, will be partly funded out of fixed penalty fines from the ANPR system.

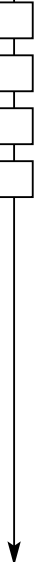
ANPR systems can check up to 3,000 number plates per hour on vehicles travelling at up to 100mph. Number plates are then checked against the Police National Computer, DVLA databases and local intelligence databases.

## Sex Offender Registration

ImageWare Systems has been selected to streamline the Indianapolis Police Department's sex offender registration process by implementing a dedicated offender registry location to capture, store, and retrieve offender images and related information. Utilising the existing ImageWare Crime Capture System (CCS), the Police Department can act in accordance with the State of Indiana's sex and violent offender statute which requires all registered offenders to renew photo images yearly and make them readily available for Web posting.

Paula Wright, Criminal Records Section Manager of the Indianapolis Police Department, said: "With ImageWare's CCS program, our Department will speed and improve the efficiency of our sex offender registration process, as well as continue to effectively manage our booking procedure."

ImageWare's CCS is a complete digital booking solution for law enforcement organisations to capture, store, and retrieve booking images and related information electronically in a stand-alone, networked or Web-based environment. The program also allows users the capability to scan or import photos such as crime scenes, weapons, vehicles, as well as create classified databases for gang members, sex offenders, inmates, and employees. CCS users can create employee ID cards or inmate wristbands, complete with photos and barcodes through appropriate databases.





## ID and Fare Cards Growing in US

Secure identification credentials and public transportation are the newest sectors contributing to the rapidly growing Smart Card market in the United States, according to leaders in those markets and members of the Smart Card Alliance.

“Telecom, financial/retail and pay television security were the first three sectors in the United States to cross over the ten million cards issued milestone, and they continue to be robust markets,” said Randy Vanderhoof, Executive Director of the Smart Card Alliance.

Speaking at the CardTech/SecurTech show, in Orlando, Florida, last month, he said: “We want to call attention to two additional sectors that are now growing strongly — secure identification credentials and public transportation fare cards. Overall, these markets are delivering exciting levels of growth for our industry, and this momentum will continue expanding the use of Smart Cards in all of these application areas.”

### Secure ID

In both government and the private sector, there is an increased need for greater physical security, authentication of individuals accessing online networks and electronically signing and encrypting documents.

Leading government agencies and companies are converging on the Smart Card as the best solution to these requirements, in many cases using new government Smart Card interoperability standards (GSC-IS) for issuing a new employee badge or ID and combining physical access, online access and in some cases biometrics on the same Smart Card-based credential.

Sun Microsystems created a new Smart Card solution for network security and physical access control called JavaBadge, and has nearly re-badged every Sun employee in the US and plans to issue cards to all 35,000 employees worldwide in 100-plus countries by July 2003.

Sun is using Java cards manufactured by Schlumberger, middleware software provided by ActivCard and readers from SCM Microsystems, as well as its own embedded ones. The cards also have a magnetic stripe for access control today and MIFARE

proximity for use for access control in the future.

One of the most advanced programs is the Department of Defense Common Access Card. Mary Dixon, Director of the Department of Defense Access Card Office, reporting on progress, said: “As of the end of April, we have issued 2.4 million Smart Cards on the way to four million, a goal we expect to achieve by the end of this calendar year. We are issuing approximately 10,000 a day. By the end of May we will have deployed an issuance infrastructure in 900 plus sites in more than 15 countries around the world, and we are rolling out more than one million card readers and the associated middleware.”

“The next steps for us are to use the CAC for signing and encrypting of e-mail, and to expand the number of portals capable of doing Web-based e-biz using PKI authentication tools.

“We also want to add a biometric to the cards sometime next year. Once we have an on-card biometric we will have the capability to use a three-factor authentication — what you have, what you know and who you are,” Dixon added.

“Another development is expanding use of the cards for physical access. We are moving to add a contactless chip to the card for building access. Pilots are underway and we will begin roll-out in early 2004, using ISO/IEC 14443 Parts 1-4 with a FIPS-approved algorithm.

### Public transport

According to Greg Garback, Executive Officer, Department of Finance, Washington Metropolitan Area Transit Authority (WMATA), “Public transportation is in a nationwide investment rush to deploy Smart Card-based ticketing systems.

“We led the move to contactless Smart Cards when we launched our Smart Trip fare cards in May of 1999. Today we have 330,000 cards in circulation, which represents about half of our riders. Now Boston, Seattle, Chicago, Los Angeles, San Francisco, Atlanta and others are joining Washington DC and investing hundreds of millions of dollars in these programs. Five years from now every major metropolitan system in the United States will have Smart Cards,” he claimed.

### Website

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





# Renesas: The Joint Venture Between Two Giants

by Patsy Everett, Managing Director, Smart Card News Ltd



*Patsy Everett*

Renesas Technology is a global semiconductor company formed by Hitachi and Mitsubishi whose aim is to be the key contributor to the ubiquitous society, a micro-controller in all things and to be the clear winner in this area.

The name Renesas appears to work rather well for a technology that has its roots in France. It sounds rather French and could almost mean rebirth, which is exactly what Hitachi and Mitsubishi hope to achieve with Renesas Technology, a dedicated semiconductor house. Both Hitachi and Mitsubishi have strong semiconductor divisions and on 1st April this year the two companies formed Renesas Technology.

This joint venture has put Renesas, according to Frost and Sullivan, in number 2 position worldwide, after Infineon. STMicroelectronics is number 3, followed by Philips. According to Dataquest Infineon have a 39% share by revenue of the market with Renesas having 15%, so they have a way to go if they are to be number 1. In the MCU market place however Hitachi and Mitsubishi are number 1 worldwide. Hitachi owns 55% of Renesas and Mitsubishi 45% but the corporate management structure is an equal share, with Dr Koichi Nagasawa as chairman and CEO and Satoru Ito as president and COO and through this venture Renesas became a \$7billion company.

When asked if the fab line would remain in Hitachi, Ian Hay, Smart Card Business Group Manager, commented that the associated fab lines are now the Renesas fab lines and report into the Renesas corporate organisation. As well as creating a sales, marketing, design and development company, Renesas is an integrated company with all the aspects of manufacturing, production and quality control. Referencing this to Smart Cards, Ian thinks this is particularly important because of the secure nature of the business. "To be able to control all stages is a must," he said.

Java Card is rapidly becoming an industry standard, particularly in the mobile SIM area but also in finance and identity. Renesas recognises this so will design the silicon platforms best optimised to run in a Java Card operating environment and, as Ian pointed out, there are plenty of third parties who are developing Java Card environments, the Datacard Aptura Java Card being one, that will run on the Renesas platform. Renesas intends to remain focused on silicon, as this is their core expertise.

According to Ken Warren, Business Development Manger, Hitachi silicon grew as a major Smart Card player through the telecom business but recognised the need to grow through other areas.

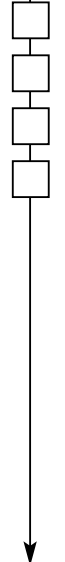
In Europe, the majority of EMV migration projects are looking for the cheaper card option as the change from magnetic stripe to chip is proving to be expensive and painful. Renesas do have product that can address this area but as Ken explained, banks will not want to re-invent their systems again for some time. This being the case, Renesas are looking at multi-function cards. These cards will be EMV plus, not quite full multi-application in that they will not support the function of load and delete but will allow a limited number of multiple applications to reside on the card. Renesas do of course support the MULTOS, Java Card and Global Platform platforms, all of which make multi-function achievable.



*Ian Hay*



*Ken Warren*





Mike Patterson, Security Manager at Renesas was asked for his opinion of Common Criteria security evaluations. He thought it a useful tool and the only standard method of looking at security competence. He said there wasn't any competition for it in the Smart Card field but that it was not well structured for Smart Cards; it was really designed for software oriented products. "Common Criteria has overheads that are painful at times", he said. Renesas has had a number of successes certifying their products against industry standard protection profiles for Smart Card chips. Mike finds Common Criteria a useful tool to create confidence with customers and also to improve and measure internal security achievements. When asked what he thought were the major security threats to the industry he said the major threat came from PR. "Someone only has to claim there is a security weakness, it doesn't matter whether its exploitable or not, for the finance houses, banks or the telecom industry customers to lose confidence." This, he feels, is the most difficult attack to combat. The human element is the easiest element to attack: someone can be bribed, blackmailed or just make a mistake. This is so much easier than trying a purely technical attack such as DPA.

Only after the PR and the human threats do you have to look at the actual technical threats, the whole range of electromagnetic attacks. People are looking at the performance of the chip trying to analyse what it is doing from the outside, drawing conclusions about the data it is processing, from the current it is consuming to the radiation it is giving off. Attackers can be as resourceful as the manufacturers.

Renesas Technology seems set to aim for the number one position in secure micro-controllers. They clearly have a solid platform in which to work and it now remains to be seen whether they can consolidate their position in the mobile telecom space and whether they can persuade the banks to move towards the more expensive multi-function cards. ♦



## Review: MySIMcopier by Gemplus

by Jon Barber, Microexpert Ltd

A big down side to changing a subscriber's SIM card is the loss of personal data held on the old SIM, including the telephone numbers and SMS messages. Gemplus can supply the MySIMcopier device to copy personal data onto the new SIM.

The MySIMcopier is a handheld device with a keypad, LCD display and a drawer to hold the old and new SIMs. Operation is fairly intuitive, in that you insert both SIMs, power up the device and follow the on-screen prompts to replicate the users data on the new SIM. The MySIMcopier is bundled as part of the SIMigration Pack service. The service is aimed at SIM card issuers who have to issue new SIMs to existing customers.

The pack consists of the new SIM card, MySIMcopier and user guide, which can be posted to the user in a photobox with four colour printing on the front.

The copier is easily customisable with logos and special colours (the supplied unit was in a translucent green casing — very 'iMac'). Gemplus claim that the unit works with all GSM 11.11 compliant SIMs, and so it can be used for migration to 3G.

I tried it out with my existing Orange SIM onto a blank SIM supplied by Gemplus and it did indeed copy all the numbers accurately. I found it to be a very handy device, but I'd like it even more if Gemplus didn't insist on using random capitalisation in the product name. ♦





## eEurope Meeting in Athens

Three years after the initial eEurope Smart Cards kick-off meeting which took place in Athens in September 2000, the final meeting was again hosted in Athens on 4-5 June 2003. The first meeting was sponsored by the National Bank of Greece. The final meeting was hosted under the patronage of the Greek Presidency by the Ministry of Economy and Finance. Mr. Yannis Caloghirou, Information Society State Secretary in his keynote address greeted the meeting on behalf of the Minister Mr. Christodoulakis and noted that "This is a proof of the role that Governments will play in the adoption of state-of-the-Art technologies". He also explained how the comprehensive Greek Information society strategy — now being actively implemented — will "enable citizen access to eGovernment services and other services provided by the private sector requiring secure authentication or electronic signatures." Plans about Smart Cards and eGovernment were also elaborated by the representative of the Greek Ministry of Interior, Public Administration and Decentralisation that is deploying 1,000 Citizens Service Centers nationwide.

The presentations and discussions at the Open Meeting resulted in valuable exchanges of knowledge and experience about Smart Cards and related key subjects in each of the following areas:

- the current Greek objectives and plans for the use of Smart Cards as a part of the Information Society infrastructure
- other national, European, and international initiatives and projects in the Smart Cards sector, in specific areas such as e-government, e-banking, healthcare, transportation, security, e-authentication, etc.
- the challenges and the latest developments in government use of Smart Card as part of their eGovernment strategies with particular emphasis on eJapan
- latest progress on the initiative of the EC and Ms Diamantopoulou for the European Health Card
- eEurope 2005 preliminary Smart Card R&D directions from the FP6 First Call evaluation results
- collaboration in Smart Cards programmes in standardisation, in continuation of current projects and applications and in the launch of follow-on activities and plans.

Professor N. Ohyama, Chair of NICSS in his presentation on Japan's e-Strategy and its implementation stated their deep appreciation for the work of the eESC Charter so far and their strong wish that "global collaboration between Europe, Japan and US would continue until the Smart Card technology enabled

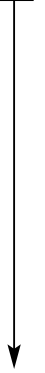
Information Society is realised and people will be able to use their Smart Cards anywhere in the world."

Mr Antonis Galetas, DG Information Society representing the European Commission gave the closing address in which he complimented the eESC CoChairs and participants for the achievements completed and disseminated over the two active years of the eESC Initiative. "Given the important role that Smart Cards can play in most of the application areas targeted in the eEurope2005 plan it is important and a challenge for eESC to find a way to continue the collaboration". He noted that most of the many Smart Card related proposals submitted to the Trust and Security action line of the first call for proposals were successful in the evaluation and that subject to the available budget several could be expected to be funded.

Jan van Arkel thanked Mr Galetas on behalf of the eESC constituents and noted that "the collaborative network established through the eESC initiative is continuing mainly through the CEN/ISSS Workshop on eAuthentication, the ISCI (International Smartcard Certification Institute) and continued activities by some ex-Trailblazers. Provision for other collaboration is indeed envisaged in proposals currently under evaluation for funding under FP6".

The meeting was organised by the initiative eEurope Smart Cards 2002 with the local assistance of Stefanos Karapetsis, Mellon Group Executive Director and chairman of the Greek eBusiness Forum Smart Card Working group comprising over 120 representatives of all sectors in Greece. (see [www.ebusinessforum.gr](http://www.ebusinessforum.gr)). Mr Karapetsis noted that "Over 110 experts from European industry and government together with representatives from Japan and USA enjoyed this unique opportunity to present and discuss the status and plans for Smart Card Infrastructures and Services. The Open Meeting was successful and future collaboration is assured".

All participants received copies of the March 2003 'eESC OSCIE' (eEurope Smart Card Charter Open Smart Cards Infrastructure for Europe): a complete set of requirements, guidelines, architectural models and technical specifications that address essential Smart Cards themes and issues. Awards for outstanding personal contribution to realisation of OSCIE were made to 5 individuals viz. Stefanos Karapetsis, Marc Lange, John Ketchell, Yves Chauvel and Gerard Galler. Free copies of the OSCIE CD can be ordered from the eESC website. More information including copies of the presentations and Open Meeting Report will be available via the eESC website [www.europe-smartcards.org](http://www.europe-smartcards.org)





## More Jobs Go at ORGA

Faulty market prognoses and inflated planning by the previous management, combined with a lack of orientation for the company, are hindering the recovery of ORGA Kartensysteme. Against this background and as a part of an intensified restructuring plan and focused reorientation of the company, the workforce at the Flintbek site will be cut from 500 to 230.

The new management of the Paderborn-based Smart Card company, which took over 1 April, told workers that the company had been given a good start with its acquisition by GW Card Holding.

But ORGA stated, a detailed analysis had made it clear that necessary adaptations of the company structure to market realities had been late and hesitant. Faulty market prognoses and, in particular, the capacities of the manufacturing facility in Flintbek (infrastructure doubled to 200 million in August 2001) were far removed from the real development of the market.

While buyers had downshifted to more moderate growth rates, the plans of the old ORGA management continued to be based on increasing expansion, assuming annual growth rates that lay well above the real market potential and thus well beyond the possibilities of the company. Even when the new production facility was inaugurated in 2001, the previous management was basing its planning on annual market growth rates of up to 35% in its main business sector, telecommunications. For some time, by contrast, realistic numbers in this sector have been at most 10%.

The company is confident that it will be able to pick up the pace this year and anticipates revenues for the current fiscal year of about €160 million.

That would put sales volume somewhat lower than last year, yet represent a considerable improvement over the results of past years in terms of margin and earnings relevance.

## Innovative Security Award

German Smart Card specialist Giesecke & Devrient and IT service provider Siemens Business Services received the 2003 Larry Linden Award for Innovative Security Technology at CardTech/ SecurTech for the Macao Multi-function Smart ID Card.

The card serves as Macao's new ID card and includes a biometric application and special security features within the card body and chipset. It is planned that the card will eventually become a multi-application card, combining the ID card, driving license, student card, medical card and electronic wallet.

Siemens Business Services is responsible for project management, system integration, and the registration and issuance system. G&D is responsible for supplying the card issuance system, including Java and Global Platform-based multi-functional Smart Cards and personalisation system, the key and card management system and the PKI.

## Leadership Award for Infineon

Infineon Technologies has been awarded the Frost & Sullivan 2002 Market Engineering Leadership Award for its performance in the global Smart Card IC market where it has consolidated its number one position in revenue and unit shipment shares. According to Frost & Sullivan, Infineon had about 1.2 billion unit shipments in 2002 and its market share exceeded 53%. Infineon dominated the US \$1.06 billion market for chip card ICs with a revenue share of 37.4% in 2002.

## IBM Smart Card Leader

Paul McKeown has been appointed as the worldwide leader for IBM's Smart Card solutions. He has spent twenty years with IBM and has been involved in all aspects of Smart Cards from research and development through to marketing and sales.

## ST to Acquire Incard

In a \$87.7 million cash deal STMicroelectronics has acquired from the IPM Group the business and assets of Italian Smart Card manufacturer Incard. This acquisition will compliment ST's recent acquisition of Proton World International.

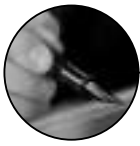
## Datacard CEO Sacked

Datacard Group has sacked Jerry Johnson, the President and CEO of privately owned Datacard since 1999. He is currently chairman of GlobalPlatform.

### Websites

-  [www.orga.com](http://www.orga.com)
-  [www.frost.com](http://www.frost.com)
-  [www.infineon.com](http://www.infineon.com)





# Putting the Smart in Smart Card — The Quiet Technological Advance of Central Europe

by Darrell Barnes, Commercial Director, Northern Europe, Oberthur Card Systems



Darrell Barnes

Smart Card technology has been around for nearly thirty years, but the magnetic stripe 'swipe' card did not aspire to become the ubiquitous item we know today until the late 1980s. Only now, with the gradual implementation of EMV, is the chip-based bankcard making a consistent appearance in your wallets.

However, the Smart Card technology that has taken thirty years to gain a high profile in Western Europe is not having the same lengthy implementation process in Central Europe. There the quiet adoption of innovative applications and services is putting this region ahead of its noisier but less nimble western neighbours.

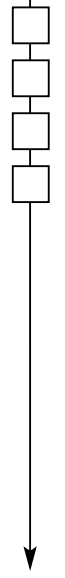
## Ringling the changes

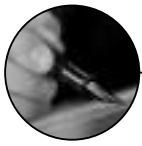
The major difference with Central Europe as a market is the speed at which technology is deployed. Within the region, there are fewer legacy systems to contend with, thus reducing the age-old issue of return on investment. The mentality, across governments, businesses and consumer groups, is "it's new, therefore it's good" — there is no automatic negativity or resistance to change. This embedded attitude promotes superb conditions in which to introduce new technologies, especially those that impact positively on everyday life, such as Smart Cards.

## Location, location, location

In 1999, Oberthur created a regional office in Budapest to serve the perceived Central European market. At the time, our decision to open this office was viewed with some scepticism throughout the industry. However, our business model — based on placing as much resource as possible as close to the customer as possible — has enabled us to take advantage of the explosive growth in the region's Smart Card market, a growth which shows little sign of abating!

Events Diary		October	
<b>July</b>		8 - 9 ASROC - Alternative Payment Processing Conference, Le Meridien Waldorf Hotel London, UK	
29 - 30	3rd CardEx Asia2003, The Legend Hall, Kuala Lumpur	Tel: +1 (212) 722 - 1744 Email: info@asroc.com Website: www.asroc.com	
	Ms Karen Dass, Asst Project Manager Sovereign Exhibitions Sdn Bhd Tel: 603-77272828 Email: karendass@soverex.com.my	29 - 31 Biometrics 2003, Queen Elizabeth II Conference Centre, Westminster, London, UK	
<b>September</b>		Tel: +44 (0)1743 241289 Website: www.biometrics-2003.com	
23 - 25	Mobile Commerce World 2003, ExCeL, London, UK	29 - 31 9th Annual Cards Africa 2003 Sandton Convention Centre, Johannesburg, South Africa	
	Tel: +44 (0)207 827 5981 Website: www.mobilecommerceworld.com	Danielle Gautier, Sponsorship Manager Tel + 27 11 463 2802 Email: danielle.gautier@terrapinn.com Website: www.cards-worldwide.com/2003/cards_ZA	
25	Revenue Management 4 Retailers Merchandising Planning and Price Optimisations Strategies, Marriott, Grosvenor Square, Mayfair, London, UK	<b>November</b>	
	Retail Events Ltd Tel: +44 (0) 20-7430 0077 Email: mark@retailevents.co.uk Website: www.retailevents.co.uk	18 - 20 Cartes and IT Security 2003, Paris-Nord Villepinte Exhibition Centre, France	
		Website: www.cartes.com	





## Advanced technology, advanced thinking

Whilst mobile provides the bedrock of business for Oberthur in the region, the diversity of projects with which Oberthur is now involved illustrates the advanced thinking of a wide variety of organisations which are implementing Smart Card technology in everyday life. In Finance, the leading Hungarian commercial bank, Kereskedelmi és Hitelbank (K&H Bank, part of the Belgian owned KBC Group) set the pace by launching a number of card products delivering a range of benefits tailored to different customer groups. At one end of the spectrum, simple cash cards and at the other, Oberthur's Visa-certified, CosmopolIC multi-application Java cards combining full Visa credit/debit functionality with secure access to K&H Bank's E-Bank service.

There are certain idiosyncrasies that characterise the region's requirements of Smart Card technology. Card fraud, for example, is not really perceived as a major issue in central Europe — it is not the driver of technology implementation. This means the applications for EMV have to be compelling in order to achieve implementation — they must deliver real value. Additionally, the terminals are owned by the banking institutions rather than the retailers, so introduction of new services is much easier.

Still in Finance, consider the Dimenzió Group, a non-profit making insurance, health and pensions organisation. Later this year, they will be issuing to their 30,000 subscribers Oberthur's AuthentIC PKI Smart Cards which will hold identification and membership data, medical records and certificates — another everyday use of Smart Card technology.

## Legal Ease

Recent changes in Hungarian law have led to digital signatures being legally recognised ahead of many more 'developed' countries — testament to the innovative stance of Hungary's administration.

MATÁV looked to Oberthur to supply Smart Cards incorporating PKI security and readers to use in its 'e-Signature' authentication service, which it will initially offer to business customers and rollout to residential users over time. However, the most innovative use of digital signatures is their adoption by the Hungarian Tax Office in a revolutionary web-based tax return system. In accordance with new government legislation, Hungary's top 500 corporate taxpayers, specifically the CEOs and CFOs of these organisations, must now submit their monthly tax returns electronically, authenticated by a digital signature stored on an Oberthur AuthentIC multi-application Smart Card. This eliminates the need for paper, reduces processing times and all within an optimum security environment.

## Mobile Banking – a reality

The Central European mobile communications market is also leading the way in Smart Card adoption. Using Oberthur's 64k SimphonIC Java SIM cards, Mobitel, the largest GSM operator in Slovenia, in partnership with Slovenia's NLB Bank, is enabling subscribers to access their bank accounts via their mobile phones and to carry out transactions. Orange is doing the same in Romania, and operators throughout Croatia, Hungary and Macedonia are utilising advanced Smart Card technology to enable a wider range of services to their subscribers in general.

## Surreptitious success

Central Europe is a quiet hotbed of technical and business development — especially in the Smart Card market — and we expect this to continue. Because the technology population is relatively small, implementation can be much more rapid and the benefits felt far more quickly than in countries which are traditionally seen as more 'advanced'. But these markets are only truly accessible to those companies who have the foresight to build a robust local presence early in the technological evolution. As the rewards for these investments continue to grow, we expect to see many others follow our lead. ❖

- **About the Author:** Darrell Barnes, Commercial Director of Oberthur Card Systems' Northern Region since 1999, was previously Marketing Director for De La Rue Card Systems in Paris. Prior to this he was General Manager of DelPhic Card Systems, the Joint Venture Smart Card arm of Philips Smart Cards and De La Rue. For more information on Oberthur Card Systems, visit [www.oberthures.com](http://www.oberthures.com)





# Managing Multi Application Cards in the Field

by Jon Barber, Microexpert Ltd



Jon Barber

## Introduction

The rise in popularity of Smart Cards that support the Java Card and Open Platform standards has resulted in many multi application cards being issued to end users. The two standards make it possible to update such cards over insecure channels, such as the Internet, in a safe manner.

This is a very attractive proposition, as historically issuers have simply recalled cards and issued new ones, destroying the old ones. Besides the obvious economic implications of such a strategy any user data that the customer has stored will be lost.

(For example, American Express has issued the ID Keeper application to be loaded onto the Blue card. This handy application stores the end users online usernames and passwords on the card and automatically completes the login sequence for websites. Users can back up the data and reload onto the new card, so the problem isn't so great in this case.)

However, our experience in projects where post issuance management of cards is a requirement has shown that there are some serious potential pitfalls. In this article I will talk about the most serious and how they could be avoided.

## The Scenario

For the purpose of illustration we will assume a large bank has issued customers with a Java Card and Open Platform compliant card that has a purse or identity application that is protected by a PIN. This bank wants customers to use the card as much as possible, and so plans to make available updates to the card that may prove attractive to customers, such as customer loyalty bonus schemes or secure access to online banking.

They plan to issue all cardholders with a Smart Card reader and software that installs on home PCs so the card can be managed over the Internet.

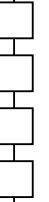
### Pitfall 1 — restricting remote access to the card

The ability to send commands to the card remotely is necessary to update the card, but you only want authorised entities to do so. The Open Platform standard mandates the establishment of a secure channel before a card can be manipulated, so there's no problem, right?

Unfortunately not. Although no application can be loaded or deleted without a secure channel the applications on the card can be used by anyone. The chance of an attacker using the applications successfully are slim if they are designed correctly, but a denial of service attack is very easy to undertake.

For example, let's assume the purse is protected by the usual PIN mechanism that allows three attempts before the application is locked. A malicious attacker need send only three random PIN attempts to the purse application before it is rendered useless. The chances are the user may only discover the attack has succeeded when he tries to pay for something, which leads to embarrassment to the user and a reluctance to use the card again. One or two successful attacks would lead to high profile media exposure resulting in lost confidence in the scheme.

One scheme attempted to prevent such attacks by only allowing webpages originating from websites with a given domain name: i.e. to send commands to the card. This type of protection would only deter trivial attacks, as it is fairly easy to fool browsers into thinking they're at sites that they really are not.





A better approach is to enforce access rights. By mandating that the back end system must prove to the client that it has the rights to manipulate the card, trivial denial of service attacks can be easily prevented.

### **Pitfall 2 — firewalls**

Many schemes implement access to Smart Cards through ActiveX / COM controls which are specific to Win32 systems and Internet Explorer. ActiveX has such a bad reputation that many corporate firewalls block all such content as a matter of course. This would mean that cardholders could not update their cards in such an environment.

As broadband links become more common amongst home users firewalls are becoming more prevalent in the domestic environment, with similar policies towards ActiveX.

### **Pitfall 3 — cross platform issues**

Related to pitfall 2 is the issue of non-heterogeneous end user systems. Up until about two years ago a scheme could assume end users would use Win32 systems with Internet Explorer as the browser and that would cover 95% of the user population.

Today this may not be such a good idea. Technology early adopters, the kind who would like to update their cards over the Internet, are more and more likely to be using Macintosh computers and browsers other than Internet Explorer.

The best approach to avoid pitfall 2 and 3 is to use a cross platform technology that is independent of the browser.

### **Pitfall 4 — hardware problems and lack of testing**

The very act of installing hardware onto home computers can be problematic, and this is especially true of Smart Cards. Things have improved somewhat with USB Smart Card readers, but there are still many legacy systems that have no support for USB devices and so older serial readers must be used.

Microsoft Windows has received much criticism for being unstable and buggy, especially the older variants such as 95, 98 and ME. This is to some degree unfair as many problems stem from poorly written device drivers, the software supplied by manufacturers to speak to the hardware they supply.

If a scheme supplies older style serial readers with badly written drivers and unfriendly installation routines they had better have plenty of well trained support staff manning the hotlines. Questions such as “which COM port is the reader attached to” are likely to stump at least 80% of the customers.

One scheme supplied serial readers along with software that tried to use the card as soon as the operating system started up. A vicious cycle occurred when the reader was not plugged in as the program refused to continue until it saw a card in the non-existent reader and so the user couldn't uninstall the software or use the computer at all. The result was an unusable computer and a very angry customer.

The only prevention is to test the software thoroughly on all potential platforms and supply intelligent, well-written install and uninstall routines.

### **Conclusion**


I have looked at just a few of the numerous pitfalls involved in managing post issuance cards in the field, but these are the real showstoppers. What these and other pitfalls share in common is a lack of planning and coherent thought on behalf of the scheme managers.

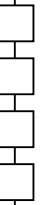
It is often the case that such management of cards is not thought about until the end of the development life cycle, with the result that budgetary and time limitations lead to poor and insecure solutions that frustrate customers.

It is a sad fact that due to a lack of a small amount of planning an otherwise excellent card scheme can be prejudiced fatally. The de facto industry standards of Java Card and Open Platform, when used intelligently, can lead to a very flexible infrastructure that manages cards in a way that customers find both useful and painless. However, the inherent security challenges in creating such an infrastructure must not be ignored.

Microexpert has created a solution to address the issues detailed above, and more besides. Rosco runs on numerous platforms and can securely update Smart Cards and tokens over insecure networks. ❖

### **Website**

 [www.microexpert.com/cards.html](http://www.microexpert.com/cards.html)





# Smart Card News On Line: Round-Up

Smart Card Group's *Smart Card News On Line* service is emailed to subscribers every working day, reporting on industry events as they happen. This service is available FREE to *Smart Cards Now* subscribers (£100 per year for non-subscribers). For further details and to sign up please contact Amanda Pearce — amanda.pearce@smartcard.co.uk; tel: +44 1273 515651 (further contact details are available on page 103). Here's a selection of the headlines we covered in May:

## Corporate

- Gemplus Still Leads the Market
- Jure Acquires OPENLIMIT as a Wholly Owned Subsidiary
- Gemplus Confirmed as Number One in Smart Cards
- Giesecke & Devrient and Siemens Win CTST Larry Linden Award
- Renesas Ships 500 Millionth Smart Card Chip
- Fines for Uncollected MyKad Cards
- Smart Card Alliance Adds 26 New Organisations
- NBS Card Technology and Bell ID Sign Co-operative Marketing Agreement
- More Jobs to Go at ORGA
- Aconite Appoints New Business Development Manager
- Smart Card Projects Out for Tender
- Siemens SPLS and ACG Sign Cooperation Agreement
- Iris Seeks Foothold in Cambodia
- Retail Logic Reaffirms Commitment to Partner Channel
- INSIDE to Provide Contactless Cards in Indonesia
- First Data Board Increases Share Repurchase Program
- Hypercom Earns Class A Certification from Datamark
- Atmel Introduces Evaluation Kit for LCD Microcontrollers
- Baltimore up for Sale
- STMicroelectronics to Acquire Incard
- Legic Announces New Partners
- Datacard CEO Sacked
- Hi-tech System to Replace Metcard
- Societe Generale Chooses Schlumberger's PoS Products
- Rangkaian Segar Sees 30% Cost Savings
- Design Award for Ingenico
- OTI Reduces Q1 2003 Operating Loss by 49%
- Anteon Completes Acquisition of Information Spectrum
- LG Card Plans Drastic Restructure

## Banking and Finance

- Nationwide and Level Four Deploy Improved ATM Services
- Gemplus Ready For EMV
- Gemplus EMV Sites Certified for Global Card Issuers
- Visa and Datacard Introduce Turnkey Card Personalisation Packages
- Taishin Bank Chooses Welcome XLS for Migration to EMV
- UK Chip and PIN Trial Takes Place in Northampton
- MasterCard and Visa to Release Joint EMV Card Personalisation Specification
- Visa Loyalty Program Extended
- Bankcard Deadline Extended to Sept 30
- Philips and Visa Form Alliance to Promote Contactless Payment

## Government

- UK Government Updates Interoperability Rules
- Australian Taxation Office Trials Multi-Function Cards
- Sun and EDS Collaborate on Canadian Government Solutions
- Police To Drive Criminals Off The Road
- Indianapolis Police Sex Offender Register

- Why Can Councils Not Share Information? Yet Another Smart Card Scheme
- Ohio Food Card Considered Too Expensive
- SSP Solutions Announces \$1.2 Million DoD Contract
- Food Stamp Card Use To Continue in Ohio
- Victoria Implements New System for Coroners
- £4M English Card Project Launched
- Civilians Slow to Apply for DoD Card
- First Data and GovConnect Partner
- Seoul to Carry Out Smart Card Project
- XTEC and ImageWare Provide US DoS with Secure Card Solution

## Healthcare

- Sharp Ensures Correct Drugs
- UK Throws Out Electronic Patient Records
- Keeping Tags on Patients

## ID and Authentication

- Finger Pressure Biometrics Devices Developed
- SAGEM and Cognitec Systems Sign Biometrics Agreement
- Labcal Integrates Identix Bioengine Into Smartlogon
- Applied DNA Launches Security Solution
- UK to Legislate on ID Cards
- Biometrics Ripe for Growth
- Malaysia's MyKad to Replace ID Cards
- Airport Rolls Out Biometric Security
- Smartran Adds Biometrics to Card Applications
- Setec Delivers Over a Million Passports to Lithuania
- VeriFone and Partners to Showcase Chip and PIN
- Omnetica Signs ID Solutions Agreement with ActivCard
- Pointserve Data Provides Strong Two-Factor User Authentication

## Leisure

- Good News from NDS
- Pay TV Accused of Promoting Piracy
- Dumb and Dumber — DirecTV and News Corp
- DIRECTV Files Lawsuits Against Service Pirates
- Tamil Satellite Channel for SA
- Conexant Launches Single-Chip System for Satellite Set-Top Boxes

## Misc

- Food Possible Terrorist Target
- Free Education Seminar at CTST
- New Datamonitor Report
- Two Million Gemplus Cards for UAE
- Call to Educate Nigerians About Smart Cards
- Joint Venture Proposed
- SmartDisk to Go Private
- Schools in Malaysia Urged to Adopt Smart Cards
- Datacard Launches New Products at CTST
- Library Smart Cards for Students
- Computex Exhibition to Use Smart Card Registration
- Counterfeit Smart Card Dealer Jailed
- Datamonitor Publishes New Smart Card Report

## Retail

- Schlumberger Announces cheqFlex Retail Payment Solution
- Food Retailers Increase Use of Mobile and Wireless Technology

## Technical

- ICC Solutions Test Scripts for JCB
- SCM Smart Card Reader/Pin Pad Gets EMV 2000 Certification
- SCM Expands with Dual Interface Contactless/Contact Smart Card Reader
- ViVOtech Publish Free RF White Paper
- INSIDE Introduces Accesso Low-Cost Contactless PC Reader
- Samsung Selects Teradyne for Smart Card Test
- Sun Introduces the Java Card System Protection Profile
- OTI Launches Antenna for Secured Contactless Payment Solutions
- ActivCard and Giesecke & Devrient Team to Deliver Comprehensive Java Card
- Solicore Introduces Flexion Prime Smart Card Battery
- Caradas Achieves Connexus Platform Success
- Sharp Microelectronics Previews Java Card OS
- NBS and UbiQ Announce Product Integration
- Atmel Introduces New CryptoRF Devices
- Global Adoption of Java Card Technology
- Sharp Introduces Contactless Open-System IC Card Reader/Writer
- BSI2000 Debuts Crypto2000 Technology at CTST
- Oberthur and Delta Singular Provide Card Systems in Greece
- StrongDisk Pro 3.0 is Released
- Tags Secure Freight Yard
- RSA Security and Adobe Enhance PDF
- Fujitsu Siemens Computers Announces New SCENIC Models
- GlobalPlatform GPD/STIP Development Bench
- New High-temperature Nylon Launched
- Ingenico Achieves Compliance With Finread Spec
- MIPS Technologies' 32-bit 4KS Family Selected by Sharp

## Telecoms

- DoCoMo to Offer 3G International Roaming
- First for Ericsson
- NEC Brings GSM to the States
- Baghdad Contract

## Transport

- Pay Before You Travel
- Tighter Security at Ports
- GO Transit Card for Greater Toronto Area
- Smart Card for Pittsburgh International Airport
- Easy Parking in Singapore
- Cubic Chooses Cisco for Ethernet
- London to Trial Road Toll System
- Louisville Tests Smart Parking Meters
- Cubic Adds Parking Function to Bay Area Commuter Tickets
- MTA to Introduce Electronic Fare Cards

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# Eurosmart's Forecast of Card Shipments

Eurosmart, which has 32 members including ten IC manufacturers and twelve Smart Card manufacturers, released its forecast of shipments this year at the CardTech/SecureTech show in Orlando, Florida, last month.

Sectors	Memory	% Growth	Microprocessor	% Growth
Telecom	930	-2%	480	12%
Financial/ Retail/ Loyalty	32	39%	205	17%
Government/ Healthcare	45	50%	40	25%
Transport	70	17%	20	33%
Pay TV	-	-	40	14%
IT Security	10	11%	18	157%
Others	15	15%	12	71%
<b>TOTAL</b>	<b>1102</b>	<b>2%</b>	<b>815</b>	<b>16%</b>

2003 Worldwide Shipment Forecast (millions of units)

	Cards (millions of units)	
	Memory	Microprocessor
Telecom	905	430
Financial Ser- vices/Retail/Loy- alty	23	175
Government/ Healthcare	30	32
Transport	60	15
Pay TV	0	35
IT Security	9	7
Others	13	7
Total by type	1085	701
Total volume	1786	

Worldwide Shipments by Sector 2002

Eurosmart says growth in volume of wireless telecom microprocessor cards is expected to be above 10%. Other microprocessor segments (banking, retail, ID, IT) will continue to fuel a positive growth superior to 15% while the forecast for memory cards is stable to slightly declining.

#### Website

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

## Datamonitor Market Forecast

Datamonitor forecasts that the uptake of Smart Cards for security and access purposes will increase in government, financial services and healthcare. In its report, Global Smart Card Opportunities, the company says that given the current geo-political situation, 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 report, global Smart Card shipments for standalone security will increase from 14 million in 2002 to 36 million in 2006, representing a compound annual growth rate (CAGR) of 27%.

“Vendors are eyeing the opportunity, since there is real value in combining physical and logical access with Smart Cards, especially where investment in existing physical infrastructure can be leveraged,” said Datamonitor security analyst Tim Gower.

The report covers EMEA, Asia Pacific, Latin America and North America.

#### Website

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



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