





www.firstdata.co.uk

## First Data Europe

After the impressive (and fortunately rather short) Flash intro which allows you to select the site in a myriad of different languages, you arrive at the homepage. An original design is maintained throughout but does not disguise the fact that the site is very thin on actual content. The only pages with any depth are in the 'Solutions' section, even if they concentrate more on company PR than serious product descriptions. There is also evidence to suggest that the site is not updated regularly with an advert for the company's stand at Cartes still on display a week after the event. Fortunately, the company's main corporate site (www.firstdata.com) is an improvement on this one.

- Navigation
- Content
- Appearance



www.acg.de

## ACG

The ACG site offers a far more serious proposition in terms of content although you are first advised to access the site map as the index page is somewhat overwhelming. Company information (including an archive of company reports), investor relations and press departments are all overflowing with useful information, and the run-down of company product and services is equally exhaustive. Hidden away amongst all this are some useful general pages: there is a basic introduction to Smart Cards, a market figures page and a technical glossary that are all worth checking out. Overall, a clean and professional site (despite a few spelling mistakes!) which is worth a visit.

- Navigation
- Content
- Appearance



www.welcome-rt.com

## Welcome Real-time

An entirely Flash-based website which, whilst not the worst offender on the Internet today, is rather unnecessary for what is a fairly basic and static site and serves only to create an overall 'amateur' feel. The only time any real Flash animation is used is on the existing client pages though, infuriatingly, you are unable to find out more information. Elsewhere, the company 'presentation' and other info is what you would expect. There is a small white paper section with some useful looking information and a good synopsis of the CEO's book 'Using Smart Cards to Gain Market Share', but overall you would expect a better web presence than this for such a respected company.

- Navigation
- Content
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# Smart Card Contracts Lift Gloom

A number of contracts for the supply of Smart Cards last month lifted some of the gloom which had settled over the somewhat static industry in recent months.

**Gemplus** is to deliver a Smart Card-based national ID programme for the Sultanate of Oman involving the issuing of over 1.2 million cards and the provision of consultancy, project management and integration, services and software. The cards feature digital photo ID and fingerprint recognition will be able to be checked both by portable terminals and by automatic electronic validation, for example, at airport immigration checkpoints. The scheme is scheduled for launch by the end of 2003.

**Oberthur Card Systems** and **SchlumbergerSema** are both supplying the UK's largest credit card issuer Barclaycard with EMV Smart Cards in preparation for UK's conversion to chip and PIN technology in 2005. Oberthur has already supplied more than 10 million cards to the company to date. SchlumbergerSema says it will supply "several million" e-Galleon cards to Barclaycard.

Smart Card company **Setec** of Finland is to supply Poland's BRE Bank with 20,000 EMV debit/credit Smart Cards starting in 2003. BRE Bank will start the launch of chipped EMV cards with its corporate customers. Public Key Infrastructure (PKI) features are incorporated on the cards to enable digital signatures and strong authentication over networks.

Australian Smart Card company **Keycorp** has an order for 1.2 million Smart Cards for Hong Kong's new Smart ID Card system. The agreement was brokered with Hong Kong's Pacific Century CyberWorks (PCCW) who are managing the ID card roll-out.

Smart Card supplier **ACG** of Germany has won a €5 million contract with Siemens Hellas for 16 million telephone chip cards for Rumanian telecommunication operator Romtelecom over a three-year period. The production of the cards has been assigned to ACG partner company Hellenic Smart Card in Greece. ACG will deliver the chip modules.

ACG is also supplying Angelcom, the operator of the Transmilenio Automated Fare Collection (AFC) system in Bogotá, Colombia with MIFARE contactless Smart Cards and reader modules. Around 500,000 cards and more than 1,000 reader modules have been shipped to date.

The Finnish city of Tampere has ordered 5,000 Smart Cards from **Miotec** for the eTampere City Card pilot project. The card is based on the current Tampere City Transport Travel Card and will be extended to enable payments and e-transactions.

**ASK** announced that it has shipped more than 2.5 million C.ticket contactless Smart Cards for use in UnicoCapri, an AFC system for buses and the inclined railway on the Italian island of Capri.

"Capri attracts more than seven million visitors a year, and that made temporary fare cards essential to UnicoCapri," said Bruno Moreau, Deputy General Manager of ASK. Residents are offered a reloadable microprocessor card.

## Websites

 [www.acg.de](http://www.acg.de) • [www.oberthurcs.com](http://www.oberthurcs.com) • [www.gemplus.com](http://www.gemplus.com) • [www.miotec.fi](http://www.miotec.fi) • [www.ask.fr](http://www.ask.fr)

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## Please Note

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## Don't Forget!

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

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





## Reader Market Growing

The global Smart Card reader and terminal market will expand to a revenue level of \$3,307.4 million in 2006, while unit shipments are set to grow to 25.4 million in the same year, according to research by Frost & Sullivan.

The report notes that the Europe, Middle East & Africa (EMEA) region will remain the most lucrative market for Smart Card readers and terminals and is expected to account for 46.6% of the total market in 2006, followed by North America (32.5%) and Asia Pacific (20.9%).

“New thresholds in Smart Card price/performance, credit card issuer specifications to combat fraud, greater emphasis on IT security, and the introduction of merchant loyalty programs are catalysing Smart Card technology and application development in the EMEA region,” said Frost & Sullivan analyst Anoop Ubhey.

“With payment associations, Visa and MasterCard, playing a significant role in the development of the financial Smart Card and Smart Card POS terminal markets, the Europay MasterCard Visa (EMV) mandates and the liability shift timelines will become the most critical reasons for regions to begin migration to EMV compliant Smart Cards and Smart Card terminals.”

## London Transit Card Trial

The long awaited Smart Card for public transport in London was finally launched this month with a trial involving 80,000 tube and bus workers.

However, there were concerns that the cards would not be compatible with a national scheme being developed by the rail industry, with train operators noting that it could cost millions to make the two schemes work together.

“There are negotiations under way to make both cards compatible,” the Association of Train Operating Companies told the Financial Times.

The Mayor of London, Ken Livingstone, launched the new card, called the Oyster Card, and said the cards would be available first as annual and monthly season tickets and later as pay as you go cards. The cards will be available to the public from next spring.

## Cubic Transit Contract in Houston

An \$8 million contract for a Smart Card-based fare collection system for Houston Metro’s public bus services has been won by Cubic Transportation Systems.

The transit authority’s current magnetic stripe ticketing technology, which Cubic provided in 1993, will be upgraded to handle Smart Cards and allow customers to purchase and reload their fare cards.

## RSA Smart Badge

RSA has launched its RSA Smart Badging solution designed to enable organisations to consolidate multiple applications such as user authentication, digital credential storage, building access and corporate ID badging onto one Smart Card device. The solution is to be based on RSA’s SecurID Passage software V 3.4 and the RSA SecurID 5100 Smart Card - a multi-purpose 32K JavaCard platform.

## Monitoring School Diets

UK school meals provider Scolarest and the Institute of Food Research (IFR) are to undertake a 19-month trial at a school in Hertfordshire which will enable pupils to use a Smart Card to pay for school lunches.

The scheme is part of a project to address growing concerns of obesity among schoolchildren and will be used to investigate dietary links with obesity and its related diseases. The study will use the Smart Card payment technology to record, analyse and measure students’ eating habits.

## ORGA Alliance in India

ORGA Kartensystem has formed an alliance with New Delhi-based plastic card processor DEI to develop Smart Card solutions for the Indian market.

Deepak Soota, President and CEO of DEI, said: “India now imports all the Smart Cards it requires and the technology too. With ORGA, we will be able to develop and produce them in India, so reducing costs drastically while simultaneously designing applications suited for Indian requirements.”

ORGA developed the Smart Card-based driving licence for the Indian state of Gujarat four years ago.





## Football Club to Use Smart Cards

Inside Contactless has been chosen by FortressGB to supply its PicoPass contactless Smart Cards and multi-standard contactless reader interfaces for a Smart Football Club solution being implemented at Manchester City's stadium in the UK.

The project is currently in pilot phase in the stadium's Family Stand with the full solution scheduled for roll-out in the 2003/2004 football season.

## VeriFone Yugoslav Contract

Electronic payment company VeriFone has won its first major contract in Yugoslavia for 1,000 Omni 3750 terminals, which offer support for the migration to EMV compliancy and PIN verification, to the Komercijalna Bank. The contract was secured alongside Arius Group subsidiary VIDRA Info who have recently joined the EMEA VeriFone International Partner network.

## ACT Smart Card Tachometers

Applied Card Technologies (ACT) is to deliver its new range of Smart Card tachometer readers for UK road haulage company CH Jones.

Production has already begun on the initial order for 11,000 of the Databridge units which are designed to be mounted in the cab of the vehicle and will wire up to the vehicle's own tachometer so that accurate mileage information is recorded onto the driver's Smart Card. The information will then be downloaded at the Key Fuels and DieselDirect fuel pumps when the driver next refuels using the card.

## e-Government At Its Finest

A new case study from the Smart Card Alliance focuses on the state-wide EBT program in Ohio where over 375,000 Smart Cards are active and more than 10,000 terminals are in use at over 5,000 retail locations.

"This case study shows that thoughtful business application of a leading-edge technology can provide advantages to everyone in the benefits supply chain," said Bruce Philpot, Managing Director of the Center for Automatic Identification at Ohio University.

"The Ohio EBT Smart Card program is e-government at its finest. Individuals and families who participate get greater convenience and dignity, and the

state reduces fraud and simplifies benefits distribution for itself and its participating merchants. It proves that intelligently applying the right technology, in this case Smart Cards, can benefit all of the stakeholders in a government managed payment system."

## FIPS Certification for Cryptoflex

SchlumbergerSema has been awarded the FIPS 140-1 Level 2 certificate for its new Cryptoflex e-gate 32K Smart Card. The company claim that it is the first Smart Card vendor to offer a USB and ISO Smart Card with FIPS certification.

The Cryptoflex e-gate card can be deployed as part of the Schlumberger DeXa.Badge solution which combines security consulting, PKI, biometrics, thin-client architecture, integration and other services to enable organisations to incorporate the benefits of smart ID cards into their IT infrastructures.

Jean-Claude Perrin, Director of IT Cards at SchlumbergerSema said: "The Cryptoflex e-gate card's unique combination of security features makes it a key tool for government organisations and multinational companies which require FIPS certification."

## KT Selects Bell ID Card System

South Korea's KT Corporation has selected Bell ID's ANDiS Management Systems for its large-scale multi-application EMV Smart Card solution. The Web-based system will enable central life cycle management of KT's EMV Smart Cards, applications and cryptographic keys.

The company plans to issue the cards to subscribers, initially including up to seven applications in the field of electronic payment, loyalty and ticketing. KT will issue both GlobalPlatform cards and MULTOS Smart Cards, featuring Post-Issuance Personalisation capabilities, and will be equipped with an EMV credit/debit application and the "I-Cash" electronic purse application.

For more information visit ...



**Frost & Sullivan**

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

**ORGA**

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

**Inside Contactless**

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

**Verifone**

[verifone.com](http://verifone.com)

**ACT**

[www.card.co.uk](http://www.card.co.uk)

**Smart Card Alliance**  
[www.smartcardalliance.org](http://www.smartcardalliance.org)

**SchlumbergerSEMA**

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

**Bell ID**

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





## ORGA Launches New Java Tool

ORGA Kartensystem has released version 2.0 of its ORGA JavaCard Applet Manager (OJAM) which simplifies the management of JavaCard applets and support all Java SIM cards.

OJAM provides on-card functionality, for which a 3GPP TS 23.048 compatible Java SIM card is read out with the help of a Smart Card reader, as well as off-card functionality, for which neither a card nor reader is needed.

## Orange Selects Incard Java SIM

Incard is to supply Orange UK with 32K Java SIM cards. The mobile operator, which is part of France Telecom, will use Incard's MoKard based on a 32-bit RISC architecture microprocessor.

Gemplus is also supplying 32K Java SIM cards to Orange (SCN October 2002).

## Gemplus Contracts

Gemplus has been selected by mobilkom austria to deliver its USIM card technology for use with the Austrian 3G network. The USIM card, GemXplore 3G, is compatible with both GSM and UMTS networks, which the company claims will allow mobilkom austria to integrate a UMTS-compatible platform in their existing 2G environment and ensure a smooth migration to 3G.

In Ireland, Gemplus has delivered what it claims is the first generic JavaCard technology-based SIM platform to Vodafone Ireland. The Global Generic 1 SIM platform is based on Gemplus' standard Java Card technology and is customised to meet Vodafone's specifications. Gemplus said the solution was designed to facilitate subscriber migration from voice to data services.

Gemplus has also supplied SIM cards, OTA (Over the Air) activation and browsing services for PC Management's launch of West Virginia Wireless in the US.

## New Memory Technology from ST

STMicroelectronics has announced details of Page Flash, a high performance Flash memory technology that claims to remove the need for EEPROM in high memory density Smart Card chips. A Smart Card technology demonstrator, which combines a sophisticated 32-bit secure microcontroller with 1Mbyte of Flash memory technology, is being used to validate the concept.

The device offers a large (768K bytes) User Flash memory for storing program code and 256K bytes of Page Flash memory that replaces the traditional EEPROM. A Flash Loader enables application code to be loaded or updated, while an additional 128K bytes of user ROM is available to hold fixed routine libraries.

"EEPROM technology played a crucial role in the growth of the Smart Card market but it is reaching the limit of its scalability. Our patented Page Flash technology paves the way for the next generation of Smart Card devices built in 0.13-micron technology and beyond," said Maurizio Felici, Group Vice-President and General Manager of ST's Smart Card Division.

## Smart Card Internet Breakthrough

Visa cardholders in Japan are to become the first consumers in the world to be able to download applications to their Visa Smart Cards via the Internet. The new service has been launched by Japan's Sumitomo Mitsui Card Company (SMCC) and will allow cardholders to download PC network access functions to GlobalPlatform multi-application Visa Smart Cards.

The company said it expects to issue at least 100,000 of the cards within a year. It has been issuing EMV-compliant Visa multi-application Smart Cards since July.

## USB Certification for Atmel

Atmel Corporation has received the USB V2.0 Full Speed certification for its AT90SC6464C-USB Secure AVR RISC microcontroller for use in Smart Cards and e-Tokens.

It features a dual communication interface and provides 64K bytes of on-chip Flash memory and 64K bytes of EEPROM. Atmel says the product, which has a 16-bit RISC crypto-coprocessor, is already shipping and is available for bulk production.

## NIST Certificate for Biometrics

Precise Biometrics and ActivCard have developed what they claim is the world's first biometrics solution to be awarded the security validation certificate FIPS 140-1 Level 2 by the US National Institute of Standards and Technology (NIST). The fingerprint-based solution uses Schlumberger's Cyberflex 32K bytes Smart Card.





The solution is designed for use in ID badge deployments by governments and enterprise businesses. The fingerprint identification on the card is facilitated by Precise Match-on-Card technology and allows the user to securely access systems, facilities and information.

## Securing Border Bridge

Cubic Corporation has been invited to discuss the possibility of providing Smart technologies for The Bridge at Las Americas, a proposed pedestrian foot bridge that will connect Tijuana in Mexico to San Ysidro in California USA.

The City of San Diego has formed a public/private partnership with LandGrant Development, which currently is leading the effort to gain approvals for the development of the bridge. Cubic is studying the application of high-security, Smart Card-based access control systems to increase the efficiency of pedestrian crossings.

Cubic said the system would incorporate biometric technologies such as fingerprint, facial recognition or iris scanning to grant or deny access to cardholders.

## New Contactless Chip

Cubic Corp has also announced the availability of its new high-speed CUB132 contactless microchip designed for contactless biometric ID cards and new multiple-application access systems. It offers 32K bytes of memory - 16 times more than is currently available with the company's current 2K byte GO CARD used in major public transit systems.

The company says the new chip could be used for a number of access control applications, including those used by public and private employers, airports and public transit authorities. The larger memory contactless card makes available biometric applications such as digitised passport photos, fingerprints and medical information.

## Biometric Signature Plan

The Nationwide Building Society plans to roll-out biometric signature capture and verification technology in its 681 branches throughout the UK. Work on the new system is scheduled to begin in the first quarter of 2003.

Electronic pads will capture the signature data such as the position of the stylus and the pressure exerted on the pad. In addition, the physical characteristics of the signature and the overall time taken to

complete it are also recorded. MotionTouch and Florentis will develop the system based on electronic signature software from Communication Intelligence Corporation (CIC).

## Fingerprint Access Control

Lenel Systems International and Bioscrypt have announced a new family of integrated fingerprint biometrics solutions for facility access control. Called Bioscrypt OnGuard, the new line integrates Bioscrypt's fingerprint biometrics and Veri-Series readers with Lenel's OnGuard Total Security Knowledge Management Solutions portfolio.

## \$15.8 million Funding for ASK

Contactless Smart Card specialists ASK has secured a new financing of \$15.8 million. The funding is led by Apax Partners who join three existing investors who have contributed \$3.2 million: CDC-Ixis Innovation, Credit Lyonnais Private Equity and the Banque de Vizille. New investors include AdAstra in Germany and iglobe partners in Singapore who invested \$4.9 million. Other existing investors are Advent Venture Partners and LongTerm Partners.

## Aspects Raises £5 Million Funding

Aspects Software of Edinburgh, UK, a developer of JavaCard software systems for the Smart and SIM card markets, has received £5 million in funding led by Royal Bank Ventures, the technology venture capital fund of The Royal Bank of Scotland's Equity Finance Unit. The existing investors - Scottish Equity Partners, 3i and Commerzbank Securities - made follow-on investments.

For more information visit ...



**ORGA**

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**PC Management**

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**Precise Biometrics**

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**Cubic Corporation**

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

**ASK**

[www.ask.fr](http://www.ask.fr)

**Aspects Software**

[www.aspects-sw.com](http://www.aspects-sw.com)





# Smart Moves For The Visually Challenged

by Annette Tarlton, Marketing Manager EMEA for POS Solutions Manufacturer, Star Micronics



Annette Tarlton

*Annette Tarlton, Marketing Manager EMEA for POS Solutions Manufacturer, Star Micronics Explains Why Only Now are Smart Cards Ready for Widespread Adoption and how Clear Project Objectives Must be Outlined Before their Implementation*

The introduction of Smart Cards, for loyalty schemes, ID or as derivatives of the electronic wallet, have been heralded by their exponents as a key component to unprecedented change in our lifestyles.

Whilst such change may come in the long term, the actual benefits realised by using Smart Cards and their associated technologies have been evidenced on a smaller, more measurable scale, by a succession of distinct organisations in very differing markets. Whilst dissimilar in their business environs, those who have been successful using Smart Cards do have one thing in common: the objective of using technology to improve their business, their customer relationships, and ultimately, their bottom line.

Like any project, those that have clear goals, are kept to budget and are tested initially on a limited scale, are easily measurable in terms of their cost vs. ROI. But with Smart Cards there has always been the issue that they are not particularly cheap to produce and have a limited lifespan, often restricted to only one user/cARRIER. A second issue, perhaps less tangible, is that those carrying Smart Cards as part of a loyalty application in particular only know their 'value' at POS as it flashes across the cashiers' screen, by scrutinising a receipt to locate the exact position of points accrued or waiting for a monthly statement to drop on the mat. The card is next to useless if the cardholder doesn't know what information is on it. What use is the card in any application if the cardholder doesn't know what information is on it.

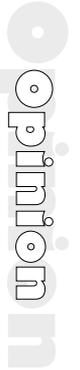
Annette Tarlton, marketing manager, for POS solutions manufacturer, Star Micronics, comments, "We have always felt that this latter issue misses the point of using Smart Cards for loyalty schemes. To sustain loyalty and interest, customers need to be communicated with and reminded as to why they should maintain their allegiance."

Star has in fact addressed both issues, developing systems that include display panels that 'communicate' with the card carrier and that can be instantly re-written to by the issuer at the point of sale, displaying updated and personal information hundreds and thousands of times.

The MCP200 and MCP300 are systems that utilise cards that incorporate a panel on the front that displays three lines of 29 characters and can be re-written to at point of sale (POS) up to 10,000 times. Any concerns over the security of individuals' personal data are immediately overcome by Star's Tarlton, who explains, "The visual cards are available in either magnetic strip or IC chip versions. In both cases, personal ID information is retained securely and is completely distinct from the message display panel." The display panel is used by the card issuer to show messages specific to the individual card holder. Each message remains on the card until the customer hands it over at the cash desk, where it is updated. Obvious applications might be to show customers accrued loyalty points or special offers or in other applications, to provide details of a club membership, future appointments, visitor access and ID.

Marlborough Golf Club implemented the system as the key component in its cashless bar system. Members are identified by their card, which they periodically "up-load" with cash. Individual marketing messages can be conveyed to the card, either of a general nature or based on historic purchasing behaviour and members can always see the remaining balance available to them. John Sullivan, general manager for the club, believes that the use of the visual card, as a means of distinguishing non-members from members and facilitating a two-tier bar pricing system, has been responsible for adding over £9000 per annum to the club's bottom line.

Derek Mills, owner of independent petrol garage, Keith's Garage, adds, "Using these cards in combination





with a good database, means that you can communicate different special offers to specific customers to capitalise on their purchasing behaviour and market buying trends.” One of the first UK adopters of visual card technology, Mills distributed cards throughout his customer base as an instrument to fight local petrol pricing wars, to communicate incentives to those he wanted without having to display them publicly and more specifically, to his competitors.

At Hutchinson Ports, Felixstowe, the company wanted to find a replacement for a paper ticket based process for roll on/roll off trailer drivers. The objectives were to find a means of identifying the driver, his trailer and the haulier responsible for the load for security purposes as well as tracking the load’s progress through the port. The company implemented a visual card based system but opted for a solution that included a card on which the entire surface of one side acted as a display panel

For each individual load, the trailer driver is given a visual card which displays his unit ID and details of the trailer, haulier, freight weight and park location and its progress is tracked via a central system communicating information to the ships, cranes and those managing the passage of an average of 850 trailers per day. On job completion, the card details are checked, the system updated and the driver cleared to continue, handing in his card for use in another shipment. Steve Coles, operations support manager for Hutchinson Ports (UK) Limited, says of the system, “It is simple, secure and cost justifiable: the cards are reusable up to 500 times and robust – an absolute necessity in this environment.”

In each of these installations, the business objectives were clearly defined from the outset and the need for a ‘communicating’ card system, distinct. As a result, the individual organisations have each realised ROI specific to their business. But recognition of the advantages of such initiatives are no longer limited to single innovative entities: companies are now understanding the benefits of sharing both the technology and the rewards of card-based solutions for multiple applications.

One such example can be seen at the Niceko Ski Resort in Japan, where each of its customers are equipped with a visual card, which is automatically scanned to enable them to pass from one ski run to another. Customers pay at one central point, and the card displays how long it remains valid for. The customers’ use of the resort is tracked and the card is returned for use by another skier at the end of their pre-paid sessions, all enabling targeted billing and accounting between the different companies involved in the resort’s management.

Similarly, shopping centres are adopting the card to enable shoppers to accrue loyalty points from all participating retailers- redeemable for cash – and their purchasing behaviour is tracked in a central system for future marketing initiatives.

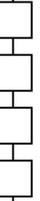
Whatever the application, Tarlton is convinced that only when Smart Cards incorporate the facility to communicate their value to their carriers, do they realise their worth. Looking to the future, she says, “Card technology is advancing and pilot projects are increasing. The use of Smart Cards for a wide-ranging number of applications will increase, whether it is to remind people of appointments or renewal of memberships, to communicate special offers, provide access to venues and services or as part of an identity management programme.” She also sees the increased adoption of ‘multi-function’ cards by complementary business groups, envisaging as an example the use of a visual/Smart Card that acts as ID, carries sufficient monetary value to entitle the carrier to use local public services and is sponsored by the area’s high street retailers who use it as a medium through which to communicate promotions. The technology is available. It merely requires a little vision.

#### Contact

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# Industry Gathers at Cartes Annual Showcase

by Jack Smith and Matt Ablott, *Smart Cards Now*

On 5th-7th November the Smart Card industry assembled in Paris for the 17th annual Cartes & IT security exhibition and conference. This year saw the event moved to a new venue at the Parc des Expositions centre and, whilst there were a few who bemoaned the lengthy time it took to travel to the venue from the city centre, the new surroundings ensured the show was bigger and grander than ever before.

The new 20,000 sq metre venue enabled the list of exhibitors to grow to over four hundred. Visitor numbers also seemed to be up compared to last year's event, which suffered from the fall-out of the September 11th terrorist attacks a month earlier. The official Cartes figures estimated that 13,127 visitors from 120 countries were present at this year's show. As always, the *Smart Cards Now* team was among them.

## Sesames 2002 Awards

One of the traditional highlights of the show is the announcement of the Sesames 2002 Awards which took place this year took place at a dinner on Tuesday 5th.

The winners were:

### Best Technological Innovation

Infineon Technologies/Sony Corporation with my-C/FeliCa

### Best Software

Retail Logic with Smart-Solution

### Best IT Security Application

ActivCard with ActivCard Gold 2.0

### Best Transportation Application

Sita - Project C-Travel with C-Travel

### Best Banking / Finance Application

Proton World with EMV Plus

### Best Healthcare Application

Technopuce SA with Hemo-TAG

### Best GSM Application

Oberthur Card Systems with My Personal SIM

### Best E-Commerce Application

Caisse Nationale des Caisses d'Epargne with ID-Tronic

### Best Customer Loyalty Application

Xiring with Fan Reader

### Best Application of the Applications

Technopuce SA with Hemo-TAG

## News from Cartes

### Government-strength ID management

ActivCard officially released details of its new Corporate Access Card (CAC) Solution Suite which includes the hardware, software and services to enable companies to issue and manage multi-function Smart ID badges.

The company has commercialised the ActivCard technology platform used by the US Department of Defense for its multi-application Smart Card-based Common Access Card and the solution is available in two versions - Microsoft Windows and Sun Solaris.

### Visa USA rewards solution

Visa USA joined forces with rewards-software developers Welcome Real-time and Catuity to launch the first public demonstration of the Multi-Network Rewards Solution, a suite of technology components being developed to enable network-independent rewards services for chip-based Visa cards issued in the United States. The solution is expected to be available in the first quarter of 2003.

The new components include software applications for payment and rewards services on cards and point-of-sale (POS) devices, including SchlumbergerSema's MagIC series of terminals, which were used in the demonstration at Cartes.

### Thales and Oberthur alliance

Thales and Oberthur Card Systems announced an alliance focused on developing Smart Card-based technologies for the ID and government, banking and finance, physical and network security markets.

"The rapid adoption of Smart Card technology and the heightened sense of global security is driving great demand among businesses and governments for fully Smart Card-based integrated systems," explained Tim Robinson, Senior Vice President of Thales Secure Operations business group.

It is planned to combine Oberthur's expertise in Smart Card technologies, peripherals and mass personalisation with Thales' global security offerings in the network and communication, transaction and payment, and enterprise and ID markets.

### Government-strength ID management

ActivCard officially released details of its new Corporate



Industry Insights



Access Card (CAC) Solution Suite which includes the hardware, software and services to enable companies to issue and manage multi-function Smart ID badges.

The company has commercialised the ActivCard technology platform used by the US Department of Defense for its multi-application Smart Card-based Common Access Card and the solution is available in two versions - Microsoft Windows and Sun Solaris.

### **Gemplus launches ResIDent**

Gemplus also launched a new Smart Card-based ID system called ResIDent and designed for advanced e-Government programmes.

“ResIDent delivers a versatile ID system that can easily be tailored to the specific requirements of governments and system integrators, and one that will help our customers to fully benefit from the capabilities and advantages of Smart Card-based e-Government and ID programmes,” said Olivier Chavrier, Marketing Director of ID & Security.

Included in the system package are Smart Cards, readers, software, card management and issuance system, personalisation services, and consulting, integration, training and maintenance services.

The Sultanate of Oman is one of the first customers to use the ResIDent solution (see page 203).

### **Philips announces MIFARE DESFire**

Philips’ has added MIFARE DESFire - a high speed, secure, contactless multi-application Smart Card - to its MIFARE architecture platform.

Designed to meet increasing demands for high speed, triple-Data Encryption Standard (DES) secured contactless ticketing solutions, MIFARE DESFire is designed for multi-functional Smart Card-based public transportation, identity, e-government, city loyalty and e-purse schemes.

MIFARE DESFire operates at a distance of 10 cms and

features a 4K bytes non-volatile memory, a high speed triple-DES data encryption co-processor, a flexible memory organisation structure, a mutual 3-pass authentication technique together with a true random number generator and an anti-tear mechanism to guarantee data integrity during contactless transactions.

First customer samples of the new product will be available in Q4 2002 and production ramp up is scheduled for Q1 2003.

### **SIM2SIM device**

SchlumbergerSema launched its new SIM2SIM device which enables automatic and secure transfer of end-user personal data from one SIM Smart Card to another. The new product is being produced by Xiring.

The standalone device weighs just 28 grams and has a two-slot SIM card reader, screen, keypad and batteries. Two SIM card are inserted into the reader and the relevant PINs are entered on the keypad to authorise the transfer of information, such as the user phone book or short messages.

### **Unattended terminal for EMV payment**

CreditCall Communications, a UK company, launched and demonstrated the world’s first unattended terminal for processing EMV chip card payments following certification of its CardEaseEMV technology by EMVCo, the body set up by Europay, MasterCard and Visa to ensure interoperability of all chip-based credit and debit card schemes.

Peter Alcock, Marketing Director, said he expected interest not only the banks and card issuers, but also from manufacturers and operators of unattended terminals such as vending, parking and ticketing machines.

“The enhanced security of EMV cards, with their advanced encryption and tamper-evident technology, will open up new areas for unattended payment,” he said.





## Gemplus Chairman Calls for Calm

As the Gemplus saga of sackings, changes and controversy rumbles on, Board Chairman Dominique Vignon warned: "The Board of Directors must rapidly return to a calm climate."

He said it was now time to let the shareholders decide how to resolve the functional difficulties faced by the Board of Directors. A new extraordinary general meeting of shareholders will be held on 21 November. Included on the agenda is the revocation of two directors: Ziad Takieddine and Dr Marc Lassus, founder and former Chairman of the company.

A previous move to oust the two directors was annulled by a Luxembourg court.

"Today, challenges, which need to be addressed, abound," said Vignon. "Gemplus and all its employees should benefit from all the necessary support to successfully pursue, in a calm atmosphere, its industrial and commercial objectives," he said.

## ORGA Restructuring Program

The management team of troubled Smart Card giant ORGA Kartensystem has announced an extensive restructuring program aimed at rescuing the company, which has been seriously hit by the slump in the telecommunications sector.

The plan calls for the existing segment-oriented structure to be replaced by a functional organisation comprising the core elements of sales, marketing, development, manufacturing and finance & administration.

Job cuts of around 250 to 300 jobs to a total of just under 1,100 by the end of 2003 are seen as inevitable. Other plans call for voluntary wage cuts on the part of the workforce for a limited period of time and a financial contribution to the restructuring by management as well.

The reorganisation, which involves carving out the system house as an independent subsidiary, is to be introduced at the start of the new year.

## Oberthur Sales Drop

Oberthur sales for its third quarter dropped to €103.3m - a 9.4% decrease compared to the previous quarter and 7.0% decline on a year on year basis. However, the company reported a number of positive results including a 28.9% year on year increase in volumes in microprocessor cards and a 12.1% increase in SIM volumes during the same period.

## Schlumberger Results

Schlumberger reported third quarter operating revenues of \$3.5 billion and net income of \$173 million. Revenues of \$896 million for the quarter increased 5% sequentially with growth in the managed services, mobilecom and banking card shipments, public sector and the UK GeoMarket credited for the performance.

## SCM Third Quarter Losses

SCM Microsystems announced revenues for the third quarter of 2002 were \$40.9 million, within guidance previously communicated by management of \$38 million to \$46 million and down 12% from revenues of \$46.5 million in the third quarter of 2001. Reported net loss for the third quarter of 2002 was \$19.8 million compared with a net loss of \$2.0 million for the third quarter of 2001.

## IT Giants Post Mixed Results

Microsoft saw sales for its third quarter rise 26% and net profits double. The performance was credited to the high adoption of its licensing programmes and strong server sales.

Meanwhile, Sun Microsystems posted a loss of \$111 million for its latest quarter and said it would cut its workforce by 11% (about 4,440 employees) in a move it hopes will make savings of \$100 million.

In the telecommunications sector, handset market leader Nokia continued to defy gloomy market conditions by posting better than expected third quarter results. The company said it was on target to achieve record market share during the final quarter of the year.

## Dione Appointments

Payment terminal supplier Dione has appointed Peter Thornhill as Global Sales Manager from NetReality where he was Regional Sales Director. Bill Waller also joins Dione from Gemplus to be Account Executive for the UK retail sector.

For more information visit ...

**Gemplus**  
[www.gemplus.com](http://www.gemplus.com)  
**ORGA**  
[www.orga.com](http://www.orga.com)  
**Oberthur**  
[www.oberthur.com](http://www.oberthur.com)  
**SchlumbergerSEMA**  
[www.slb.com](http://www.slb.com)

**SCM Microsystems**  
[www.scmmicro.com](http://www.scmmicro.com)  
**Microsoft**  
[www.microsoft.com](http://www.microsoft.com)  
**Sun Microsystems**  
[www.sun.com](http://www.sun.com)  
**Dione**  
[www.dionecorp.com](http://www.dionecorp.com)



# Ignorance May PIN the Retailers Down On Chip

by Andrew Marshman, Product Strategist at Mosaic Software



Andrew Marshman

*Andrew Marshman discusses the pending requirements for Chip and PIN and asks what this really means to the major UK retail chains.*

UK retail is on the verge of a huge Point-of-Sale (POS) technology change. APACS who principally represent the banks' interests are managing the UK retail migration to Chip and PIN. Specifically, Chip and PIN means the acceptance of chip cards (Smart Cards) present on debit and credit bank cards as well as the acceptance of a cardholder entered PIN, at the POS.

The chips conform to a standard known as EMV (Europay, MasterCard and Visa) defining how Smart Cards should provide debit or credit card payment functionality. This is not to be confused with electronic purse where funds – electronic cash – are held on the chip. Chips will, in time, replace the current magnetic-stripe technology for the foreseeable future they will coexist. One of the main aims of EMV is to ensure global interoperability. This would ensure that any debit or credit Smart Cards can technically be used at any terminal, anywhere in the world, like magnetic-stripe cards can be currently.

EMV lays down a specification for the payment processing on a chip card. A chip card is essentially a micro-computer and as such it is able to perform payment related processing offline – processing that has traditionally been performed by a bank host – such as PIN verification and risk management checks.

The main motivation for the adoption of EMV is fraud reduction. Chip cards are much more difficult than magnetic-stripe cards to create fraudulently or to copy. Furthermore, other aspects of security are introduced since the chip card supports offline PIN and can be authenticated through the use of public key cryptography even when offline.

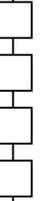
The main beneficiaries of EMV are the issuer banks. To implement the technology to issue EMV cards to a bank's customer base is an expensive exercise but the impact it is expected to have on fraud will quickly repay this investment. But many retailers see the migration to Chip and PIN as a huge cost with little benefit to them. As a result, the retail community is largely being forced into the adoption of Chip and PIN by APACS (representing the banks) and the government's threat of legislation, if necessary. Furthermore, in 2005, a liability shift is expected to come into affect that will make non-EMV compliant retailers liable for any fraud that occurs through their outlets that would have otherwise been prevented.

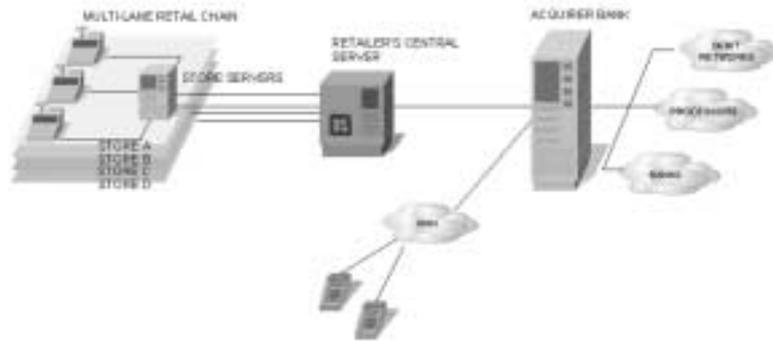
Terminals in the UK market basically fall into two categories in terms of their ownership. There are a number of acquirer banks, like NatWest Streamline and Barclays Merchant Services, which lease stand-alone POS terminals to merchants. These merchants are typically small retail outlets that have one or two of these POS terminals on their counters for the purposes of accepting credit and debit cards. These terminals typically dial the acquirer bank host processor through a telephone line when a transaction is to be processed. The acquirer bank then processes that transaction for the purposes of seeking authorization by the card issuer.

Many other terminals are owned by the merchants themselves. For example, the tills in Marks and Spencer are owned by themselves and connect to the banking network, through acquirers like Barclays Merchant Services. This till environment – often referred to as Electronic Point-of-Sale (EPOS) – is typical of the large retail chains with multiple POS check-out lanes.

For retailers that use bank leased dial-up POS terminals the impact of chip and PIN is not something to lose too much sleep over. It is the acquirer bank's problem to replace or upgrade the terminal to accept chip cards and to connect to a PIN-pad which they would also be expected to supply.

For the EPOS retailers the problem is significantly larger. Not only do they have to bear the costs of such an upgrade but they also have to fight their way through the complex technology decisions that need to be made to find a solution.





*Retailer Tills and Dial-up POS Terminals Connecting to the Banking Networks*

At the EPOS till level the retailer needs to consider a number of factors. Typically, the tills are networked within the store along with a store server (or controller) which allows the till to interact with other data servers – such as getting a price and other details for a particular product bar-code. The store server also typically provides a payment authorization mechanism so that the tills can send payment details via the store server to the bank network for authorization.

The retailer will need to decide on a chip card reader and PIN-pad configuration to connect to each of their tills. That's probably the first issue to worry about and this can sometimes become a philosophical debate. For an EMV transaction to be processed processing occurs offline – between the chip card and the POS terminal which is essentially what is referred to as EMV level II for which products need to be certified (type approved) for compliance by EMVCo. This can be done in one of two ways. The software on the EPOS till could provide the EMV level II processing, interacting with a fairly dumb chip card reader by way of low-level function commands. Alternatively, the chip card reader could do this itself assuming it has the EMV level II functions installed in its firmware. The latter may prove more costly but is likely to provide faster processing times which is a key factor for retailers since they are concerned that chip and PIN may result in a slower throughput of customers at check-outs and therefore longer queues and less takings.

There are other major issues regarding the terminal hardware that retailers need to consider. For example, will the retailer demand a complete till solution that provides them with hardware independence so that they could change chip card readers and PIN-pad suppliers later if they chose to. Also, the retailer needs to decide how they want the hardware configured; should the PIN-pad and chip card reader be integrated in one device which is operated by the customer or should they have independent devices with the merchant operating the chip card reader and the customer operating the PIN-pad.

## Events Diary

### December

4-5 Benelux Cards Conference (Plus Full Day Executive Briefing EMV The Way Forward), Royal Windsor Hotel, Brussels, Belgium

Contact Bethan Jones for further information on special discounts available:

Tel: +44(0) 20 7827 6752  
Email: [bjones@smi-online.co.uk](mailto:bjones@smi-online.co.uk)  
Website: [www.smi-online.co.uk/benelux8.asp](http://www.smi-online.co.uk/benelux8.asp)

9-11 Transport Solutions Europe 2002, ExCel Centre, London, UK

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UK  
Website: [www.iir-tse2002.com](http://www.iir-tse2002.com)

12-13 Ticketing for Transport 2002, Café Royal, London, UK

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Anchor House  
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London  
SW3 3QL  
UK  
Tel: +44 207 3689300  
Email: [enquire@iqpc.co.uk](mailto:enquire@iqpc.co.uk)  
Website: [www.iqpc.co.uk/GB-1886/ediary](http://www.iqpc.co.uk/GB-1886/ediary)





The software running across the EPOS till networks also needs significant enhancement to be able to provide the processing of EMV cards and to interface to the new peripheral devices – chip card reader and PIN-pad. In some cases, it may even be appropriate to replace the entire EPOS system including the software and till hardware.

Selecting the software to operate on the tills for the adoption of chip and PIN is a complex one. Although chip and PIN represents the immediate problem, such change is also an opportunity for retailers to introduce better functionality and possibly new services through their tills at the same time. So flexible, future-proof EPOS payment software with support for chip and PIN is in demand.

However, one even bigger problem exists for retailers when it comes to implementing chip and PIN – ignorance! Many retailers, many retail systems vendors and many retail publications have concentrated purely on the issue as it affects the till. But implementing the solution at the till is only one half of the problem.

The use of EMV will likely lead to more transactions being performed offline at the till. That is, many more transactions will not go online to the cardholder's issuer bank for authorization since the authenticity of the card and of the cardholder can be proven even without verification by the issuer bank. Despite this, many EMV transactions will still go online for authorization when the chip card processing deems it necessary. This has implications for the retail payment hosts – and, to date, many seem to have ignored this.

When an EMV transaction goes online a financial purchase transaction will typically be sent across the retail EPOS network to a payment host server, probably in the IT center, that acts as a concentrator for all the tills. There may be yet another intermediary host that the transaction passes through which is the store server – one in each store. These host systems all need to be upgraded to be able to interpret an EMV transaction and correctly format and send a purchase request transaction to the bank networks. The size and complexity of the message increases dramatically with EMV and these systems may also need to interact with the chip card reader and PIN-pad devices. The settlement process is similarly complicated chip card data. Again, given the impact that chip and PIN has no such technology this does, at least, represent a good opportunity for retailers to improve the services and reliability of such host systems. Therefore, the software resident in these host systems again needs upgrade or probably replacement.

When a retailer selects technology to service their requirement for chip and PIN, it is imperative that the two ends of the payment process are considered as one – the till and the host processing systems. The tills and the host systems do not act independently so solutions that cater for an end-to-end integrated solution are crucial if the retail market is to successfully migrate to chip and PIN by 2005.

#### Contact

■ **Andrew Marshman**

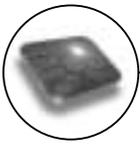
☎ +44 (0) 1932 574 742

✉ Marshman@mosaicsoftware.com

<b>2003</b>	4 - 5	SmartCard Expo, Earls Court 2, London, UK
<b>February</b>		Albert Andoh Event Manager Armstrong House 38 Market Sq Uxbridge Middlesex UB8 1TG UK Tel: +44 (0) 1895 454545 Email: a.andoh@turret-rai.co.uk Website: www.smartcardexpo.co.uk
3 - 5	Cards Europe 2003, Europe's payments and transactions summit, Royal Garden Hotel London, UK - New!	
	Simon Reid Terrapinn Ltd 2nd Floor 100 Hatton Garden London EC1N 8NX UK Tel: +44 (0)20 7827 5974 Email: simon.reid@terrapinn.com Website: www.cards-worldwide.com/2003/cards_UK	13 - 16
		Cartés Korea, Atlantic Hall, COEX Seoul, Korea  Email: cardes@excokorea.com Website: www.carteskorea.com







sharing of data between specialists, enabling remote diagnosis and operations, and the analysis of extended pools of data; however the next stage is concerned with access to records, both by specialists and by patients themselves. This requires very careful control and permission-setting (the risk is perceived, probably wrongly, to be greater than it is today when the controls are minimal), and the qualifications and rights of each healthcare professional and patient must be taken into account every time access is granted.

There are many examples of successful Public Key structures: in wireless LANs and some encrypting modems, public keys are used to set up the keys for the encryption of transmissions. Leading banks use a public-key system called Iden-trus for access to high-value money transmission and trading systems, while banks belonging to the international card schemes are currently converting all credit and debit cards to a Smart Card system that uses a mix of public and symmetric keys.

The UK Government accepts certificates from both Equifax and the Chambers of Commerce from companies and individuals wanting to file VAT or tax returns. German banks require the use of a public key certificate held on a Smart Card for Internet banking. And Spanish notaries have set up a system to allow them to certify an individual's identity from notarised documents, and to use that certificate for future documents.

Every secure browser session starts with a public key exchange, and emails secured using PGP, S/MIME or a proprietary technology virtually all use public keys. So we are all using public keys already.

## The way forward

So if we agree that we don't want a universal PKI, but do need public keys, how should we proceed?

Every organization should work out what its defining characteristics are, what groups it belong to, what groups exist within the organization or depend on it, who belongs to each group and what classes of rights there are. (This forms part of the analysis needed to define a proper IT Security policy for the organization). This is the information that needs to be contained in a Digital Certificate and signed by the organization or by the group it belongs to.

The next step (which could again be seen as part of a risk analysis) is to ascertain the value of being able to identify individuals and group membership, or the risks of not doing so. Most organizations have some activities that would benefit from public key controls; very often these can be met by using or enforcing common technologies, such as PGP or signed Adobe pdf files. In other cases the organization should consider using a managed service such as Verisign or Equifax; several banks in the UK are now setting up services, which they offer to their customers. The third option - that of setting up and running your own certification authority software and registration system - will only appeal to large or very sensitive organizations, but trade associations or chambers of commerce may often be able to offer services to their members.

This is to some extent happening already today - it is resulting in an uneven patchwork of secure and authenticated islands, in a sea of blind trust and ignorance. The problem remains that there are no secure routes between the islands.

This could change with the increasing availability of IP Version 6. Version 6 offers to all IP traffic the security we can buy today by using Virtual Private Networks, and overcomes many of the technical limitations. It makes sense for organizations using Digital Certificates to upgrade to IP V6 as soon as their service providers can support it.

In parallel with this move, some will feel a need for a register or registers of Root Certificates or Signing Key Certificates, similar to that which exists today in browser software. This could be organized using a "web of trust" on the PGP principle, it could be a two-level hierarchy with every CA recognizing a large but finite number of other CA Root Certificates, or it could be strictly hierarchical, perhaps with Government involvement. Given the keenness of the EU for promoting secure IT infrastructures, it could play a role.

But the development of public key systems does not depend on such a register - organizations can and do belong to many different structures, just as people can be a member of a family, work for a company and support a football club, all independently. Public keys can and should be used to help define these groups, and members within them.

So don't despair of public keys just because the early vision hasn't been fulfilled - they are among us now, and will only become more widely used.

### Contact

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# 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 203). Here's a selection of the headlines we covered in October:

## Corporate

- NDS Faces Fresh Legal Action
- Eurocoin Buys Majority Stake In Comcard
- CRYPTOCard Launch New Smart Card Range
- ARM Shares Slip 60%
- Oberthur Hit By First Half Loss
- VeriFone Appoint New EMEA MD
- Ingenico Forms Terminal Alliance With Concord EFS
- Global Tech to Acquire TransactionALL
- Joel K. Rubenstein Joins SSP Board of Directors
- CardBASE Join Visa Smart Program
- Oberthur Awarded SmartTrust Certification
- IBM Launch Smart Programme
- Perfect Plastic To Produce MasterCard Smart Cards
- ORGA Unveil Restructuring Program
- Aspects Secure JavaCard Investment
- Intel and AMD Prepare For Key Last Quarter
- Rainbow Extend Web Security Solution
- Hypercom Announce Major Restructuring Program
- ST Eye Up Motorola Semiconductor Acquisition
- Caradas and XIRING Enable Smart Card e-Commerce
- Schlumberger Report Third Quarter Results
- First Data Launch Chinese Subsidiary
- SchlumbergerSema Win Barclaycard Chip Contract
- IT Giants Post Mixed Results
- Cards etc And Aconite Form Strategic Alliance
- ASK Receive Funding Boost
- CardBASE Signs Turkish Partner
- Oberthur Third Quarter Brings Little Cheer
- Valicert Appoints New CEO
- Gemplus Results Hint At Bleak Future

## Government

- G&D To Secure German e-Government Initiative
- ACI Powers Hong Kong ID Card

## Banking

- M&S Roll Out Mosaic Software For EMV Trial
- Setec Win EMV Contract In Poland

- ACI Power ATM Mobile Top Ups With Link
- Visa Develops New Transaction System
- Oberthur Sign Barclaycard Contract
- Visa Forms Voice Authentication Alliance
- JCB Advances US Smart Card Migration
- ACI Supports JCB Smart Cards

## ID & Authentication

- ActivCard Launches Corporate Access Card
- Microsoft Issues Smart Cards To 25,000 Employees
- INCITS Approves Iris Recognition and Finger Image Projects
- Microexpert Launch Smart Card Log-in Solution
- Biometric Alliance Release Access Control Solution
- Keycorp Deliver Hong Kong Smart ID Cards
- HID And AcSys Launch Smart Card Access Control Solution
- Intercede Deliver Digital ID System
- VASCO Launches Latest Digipass Solution
- KT Selects Bell ID Card System
- ActivCard Launches New Smart Card Middleware
- New Biometric Solution Awarded Security Certificate

## Telecoms

- Gemplus Sign Up New SIM Partners
- Prism Choose Atmel Microcontroller for SIM Card
- Orange UK Select Incard Java SIM
- Smart and Nokia Form MMS Alliance
- Gemplus Win Austrian 3G Contract
- ACG Wins Phone Card Contract In Romania
- Gemplus In Wireless Media Alliance
- SchlumbergerSema Wins SIM Award In Spain
- Gemplus Launch SIM JavaCard Platform In Ireland
- Gemplus Wins US Wireless SIM Contract
- Pointsec And Rainbow In Mobile Security Alliance
- Gemplus Russian SIM Service Takes Off

## Technical

- MasterCard Releases New Version of M/Chip

- PTSC Launches New Co-Emulator Tool
- ORGA Launches New Java Solution
- Atmel Receives USB Certification
- Atmel Upgrades Secure IC Range
- SchlumbergerSema Card Awarded FIPS Certification
- Inside Contactless Selects NTRU Security Solution

## Retail

- Wincor Launches Smart Card Payment Solution
- VeriFone Win Yugoslav Terminal Contract
- Xansa Win Boots IT Outsourcing Contract
- UK Consumers Loyal To Cash

## Retail

- Los Angeles County Adopts DGLine Parking Terminals
- Cubic Deliver Fare Payment System In Vancouver
- ACT Deliver Smart Card Tachometers
- Transit Companies Extend Smart Card Pilot
- Face Recognition At Berlin Airport
- ICICI Bank Launch Smart Card For Fleet Operators
- Cubic To Smart Enable Californian Bridge

## Leisure

- SCM Win PayTV Contract In Germany
- UK Football Club To Use Inside Smart Cards

## Misc

- Setec Instant Provides Secure Information Mobility
- Smart Card Alliance Release New White Paper
- ST Awarded Security Certification
- NTRU GenuID Named Best Software Finalist in 2002 SESAMES Awards
- Thales WebSentry Wins EEMA Security Award
- Smart Card Shipments Increase In US
- SCM To Supply PC Smart Card Readers
- Japan Achieves Smart Card Internet Breakthrough
- US Smart Cards On the Rise Says Alliance

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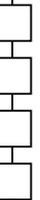
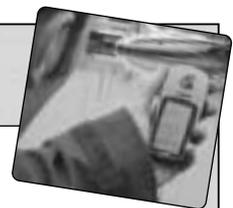
To celebrate the 10th anniversary of *Smart Cards Now* all new subscribers will receive a GPS unit free! Subscription also includes *Smart Card News On Line* via email at no extra charge!

- Smart Cards Now** UK £475
- Smart Cards Now** Rest of World £495 • €795 • \$750

Credit Card  
Number  
Expiry Date  
Signature

Name  
Company  
Address

Telephone  
Email





# Card Shipments Will Meet 2002 Forecasts, says Eurosmart

Eurosmart, whose members comprise the main chip and card manufacturers, says that Smart Card shipments will meet year end 2002 forecasts of 1217 million memory cards and 689 million microprocessor cards.

Sectors	Memory	Micro
Telecom	500	210
Financial Services	1	83
Loyalty	8	3
IT Security	1	6
Pay-TV	0	21
Government/Health	10	11
Transport	18	9
Others	8	5
<b>Total</b>	<b>546</b>	<b>348</b>

*Consolidated shipment figures for first six months 2002 (in millions) • Source: Eurosmart*

Sectors	Memory	Micro
Telecom	1100	415
Financial Services	2	170
Loyalty	40	12
IT Security	0	15
Pay-TV	0	35
Government/Health	18	25
Transport	35	12
Others	22	5
<b>Total</b>	<b>1217</b>	<b>689</b>

*Forecast 2002 (in millions) • Source: Eurosmart*

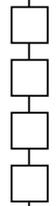
Millions of cards	2000	2001	2002	2003	2004
Wireless	317.0	417.1	519.8	649.8	807.6
Financial	175.9	238.5	324.0	395.5	459.3
Network	4.6	15.6	48.4	102.2	169.4
ID	24.5	34.7	59.9	83.0	95.7
Health	29.4	26.8	33.5	65.6	82.6
PayTV	21.5	26.6	35.1	43.9	55.3
Transport	0.6	1.7	2.5	3.9	6.2
Other	24.2	30.3	35.9	53.5	82.3
<b>Total</b>	<b>597.9</b>	<b>791.3</b>	<b>1,057.0</b>	<b>1,397.0</b>	<b>1,758.4</b>

*Smart Card Forecasts (in millions) • Source: Dataquest*

## Market Trends

Looking at market trends for 2003, Eurosmart said that in the telecom sector memory cards would be stable but microprocessor SIM cards would decrease as more and more people owned mobile phones. Pay-TV requirements were likely to decrease slightly but financial services, loyalty, IT security and government/health sectors would remain stable. In the transport sector the market was expected to be stable to increasing.

Eurosmart members: Ascom Monetel, ASK, Atmel, Datacard, Emosyn, Fujitsu, FNMT, Gemplus, Giesecke & Devrient, Hitachi, Infineon Technology, Ingenico, Inside, Microelectronica Esp., NEC, Oberthur Card Systems, Orga, Philips Semiconductors, PPC Card Systems, Rafsec, Sagem, Samsung, SchlumbergerSema, Setec, Sharp, STMicroelectronics, Thales, Wave, Xiring.



It's amazing the things people worry about. Like EMV migration.

# THALES

Susan Thompson,  
Financial Marketing Director  
Needs to know she can move  
to EMV and still support  
multi-applications.

Andrew Richards,  
Bank Managing Director  
Wants to know his EMV  
solution is value for  
money and compatible  
for the future.

Duff Wilson, IT Director  
Doesn't know how to  
minimise the changes to  
his host system when  
moving to EMV.

Tom Davies,  
Financial analyst.  
Found the  
EMV migration  
reassuringly easy.



With Thales P3™ there's no need to worry. It's the world's best-selling migration tool, setting the future proof benchmark for an easy move to EMV (Europay, Mastercard, Visa Standard). Creating EMV data from magnetic stripe files, P3™ generates cryptographic keys that safely secure customer details through card personalisation and beyond. All with minimum changes to your host systems. Enabling you to have complete in-house control over EMV card security. Even with multiple applications and external bureau personalisation. Find out more by visiting [www.thales-ecurity.com/p3](http://www.thales-ecurity.com/p3) and downloading your free 'EMV-Easy Migration Guide'.