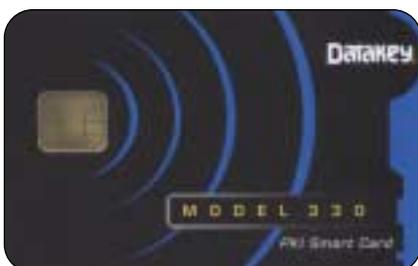


Subscribers will receive Oberthur's *GalactIC Card* free with this issue of Smart Card News.



Driving License Project Survives Indian Earthquake

Ahmedabad's Regional Transport Office, where SCN last month reported on India's Smart Card driving license project, survived the earthquake which devastated the state of Gujarat on the morning of 26th January.

Many other buildings in the area were destroyed or in danger of collapsing from the shockwaves which measured 6.9 on the Richter scale. In Ahmedabad alone, 750 people died and over 4,000 were injured while the death toll in Gujarat was reported to be at least 30,000.

ORGA Kartensysteme of Germany and their partner in India, Smart Chip, headquartered in New Delhi, who organised our Smart India 2001 tour, said they were working together to make a contribution to existing donation programmes for those affected by the earthquake and also planned to identify and support a rebuilding project in Gujarat.

Online donations to help the earthquake victims of Gujarat are being accepted via the Red Cross / Red Crescent website: www.ifrc.org

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 Telephone : + 44 (0) 1273 515651 • Facsimile : + 44 (0) 1273 516518 • General Enquiries : scn@pavilion.co.uk ISSN 0967 196X

Managing Director Patsy Everett patsy@smartcard.co.uk • Editor Jack Smith • Technical Advisor Dr David B Everett

General Manager Tara Lavelle tara@smartcard.co.uk • Marketing Manager Albert Andoh albert@smartcard.co.uk
 Graphic Designer David Lavelle david@smartcard.co.uk • Customer Support Amanda Pearce amanda@smartcard.co.uk

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

Asian Agent : J Clark Telephone : +852 2987 8737 • Facsimile : +852 2987 8732 • e-mail : jvclark@asiaonline.net

India Correspondent : Shailaja V.R. e-mail : uipai@md2.vsnl.net.in

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

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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.smartcard.co.uk

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Gemplus Reports Record Profits

Gemplus International has announced record fourth quarter and fiscal year results. Revenue for the fourth quarter was 386 million euros (ME), up 48% from the same quarter a year ago. Net profit for the fourth quarter was 41 ME.

For the full year, revenue was 1.205 ME, up 57% from the previous year's 767 ME. Net income for year 2000 was 99 ME.

Gemplus' Telecommunications business which consists of wireless SIM modules and the associated software and services, prepaid phone cards and scratch cards, grew over 80% in terms of Q4 to Q4 comparisons as well as Fiscal 2000 to Fiscal 1999 comparisons. This reflects a continuation of trends in the wireless space where growth is approaching 100% year-over-year.

Looking forward, Gemplus indicated that while there are a number of macroeconomic factors and mobile handset industry trends that would suggest caution in projecting growth going forward, it remains optimistic about 2001.

Contact

- **Severine Percetti** Gemplus
- ☎ + 33 (0)4 42 36 67 67
- ✉ severine.percetti@gemplus.com

Smart Cards in the Middle East

Network International in association with Visa are to launch the first multi-function Smart Card in the Middle East. Initially, the 8K byte card will be a debit and ATM card and issued only to employees and customers of the Emirates Bank International. Later the bank plans to introduce credit, GSM and e-commerce functions onto the card which will be accepted in over 700 outlets across the UAE.

Angry Bull

Staff at Bull's French offices staged a walk out and are going on strike in protest at plans to cut an estimated 1,800 jobs, 1,000 of them in France. However, Bull said the staff cuts would not affect Bull CP8 - the Smart Card division - as negotiations for the sale of CP8 to Schlumberger are ongoing and will hopefully be finalised next month.

Delivering the Goods

Sainsbury's, the UK supermarket chain, has joined with Homeport to find a solution to unattended home delivery. Shopping can now be delivered to customers in a secure box which will be securely attached to the Homeport. The box can only be released through the use of a personalised Smart Card. The box will then be picked up on the next delivery.

A Homeport can be fitted for £30 and retailers are charged £1 per delivery.

Website

- 🌐 www.homeporthome.com
- 🌐 www.sainsburystoyou.co.uk

Smart Lifestyle Credit Card

Campbell Technologies and several independent credit card issuers are discussing an agreement for the co-branding and launch of the Lifestyle Credit Card for members of Campbell's Lifestyle Rebate Rewards Program. Campbell have concluded a Master Licensing Agreement with Global Consumer Technologies to market an entire suite of products and services developed on a Smart Card platform. Campbell Technologies will be the operator and profit center for the entire United States market.

Campbell Technologies is preparing to launch one of the first Smart Card driven loyalty programs in the US in the third quarter of 2001. The Lifestyle Credit Card will provide customers and merchants with the convenience and ability to combine the Lifestyle Rebate Rewards Program, eCoupons, eTickets and credit card functionality on one card.

Contact

- **Mark Wolkos** Campbell Technologies
- ☎ +1 480 348 9282
- ✉ markwolk@primenet.com

EMV Certification for SCM Readers

SCM Microsystems Smart Card readers have been awarded EMV Level 1 certification and can now be supplied to financial organisations worldwide.

Contact

- **Jane Stancombe** SCM Microsystems
- ☎ +44 (0)118 989 9000
- ✉ jstancombe@scmmicro.co.uk

Oberthur and Kyodo Target Japan

Oberthur Card Systems has signed a memorandum of understanding (MOU) with Tokyo-based Kyodo Printing to work together at expanding the Integrated Circuit card (IC) market in Japan. The first joint project will start following the completion of the Japanese Debit specification set to be issued later this year.

“This partnership marks our first step in moving into the growing Japanese Smart Card market,” said Didier Serodon, Director of Oberthur’s Payment Division.

Kyodo Printing, one of the largest printers and magnetic stripe card manufacturers in Japan, is already active in the microprocessor card market. By combining forces with Oberthur, Kyodo will help adapt Oberthur’s product portfolio to comply with Japanese specifications for the payment industry and address the growing demand for Smart Cards in the e-Business and mobile communications arenas.

Oberthur said that the initial joint project to produce an IC payment card will start in March, with the first pilots scheduled in August prior to volume roll-out at the beginning of 2002.

Contact

- **Francine Dubois** Oberthur Card Systems
☎ +1 310 884 7981
✉ Francine.dubois@oberthurusa.com

OTI Acquires German Companies

OTI has acquired the remaining 49% of European Smart Card system integrator InterCard Kartensysteme GmbH and electronic Smart Card hardware manufacturer InterCard System Electronic GmbH, operating from Villingen and Bad Durrheim in Germany. Subject to closing, OTI will own 100% of each company.

OTI acquired 51% of InterCard Kartensysteme InterCard System Electronic when the agreement was signed last June. The remaining shares in the companies will be acquired by swapping shares. To secure the deal OTI has allocated 785,000 new shares to be held with a trustee for the balance of the acquisition. The new OTI shares will be distributed to InterCard owners over the next six months.

Website

- **OTI**
✉ www.oti.co.il

Digital IDs for Bracknell Residents

Bracknell Forest Borough Council in the UK is issuing digital identities to any of its 110,000 residents who want to use the Web to interact with the local authority. The ID will enable citizens to check on or pay council tax, find out who is being given planning permission, comment on recent council decisions and find out information usually only available at council offices.

Initially, the digital ID will be a number and password that can be used to access the Council’s online services and send messages to council officers. In the longer term, citizens will be able to report broken street lights, damaged street furniture such as benches or where graffiti has been sprayed.

Later this year, the council is planning to launch a Smart Card that will carry the digital ID and allow holders to access and pay for a wide range of council services.

Satellite TV Goes for Hackers

Two satellite TV companies have been cracking down on hackers and pirates who have been using hacked Smart Cards to gain access to TV channels without paying, according to BBC News Online. America’s DirecTV and Spain’s Canal Satellite Digital have broadcast codes that have stopped hacked cards from working. DirecTV believes its counterattack was 98% successful and may have knocked out as many as 100,000 users. In Spain, Canal Satellite Digital managed to crack hackers cards for a few hours but hackers found a fix and issued it on the Internet.

Mass Transit Fare System

Cubic Transportation Systems has won a \$20 million contract to provide the first interstate contactless mass transit ticketing system in the US. The Washington Metropolitan Area Transit Authority (WMATA) has selected Cubic as the prime contractor for a new regional program, linking payment for WMATA buses serving Washington, D.C. and parts of Maryland and Virginia with the Metro’s existing SmartTrip fare collection system developed by Cubic.

Contact

- **Kelly Williams** Cubic Corp
☎ +1 858 505 2378
✉ Kelly.Williams@cubic.com

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Smart Ticketing in Taipei

Taipei City Government has launched a US \$30M automated contactless Smart Card ticketing project for mass transit to boost the use of public transport and ease congestion in the city.

System integrator MiTAC and Philips Semiconductors have been selected to introduce the contactless MIFARE technology to make it easier to buy tickets and travel passes in Smart Card format and to make it possible to offer passengers incentives and discounts.

Contactless card readers are currently being installed in 500 buses and at entry and exit gates in the 64 MRT (Mass Rapid Transport) stations. The second stage, scheduled for mid-2001, will extend contactless ticketing in up to 4000 buses belonging to 13 different bus companies operating in the city.

Passengers will be able to buy tickets and load additional value at many locations in the city. MiTAC will install its "add value system" consisting of more than 900 point of sale terminals and 300 added value machines for reloading cards plus several Passenger Agent Machines (PAMs) at the stations and car parks to check card status, add value, purchase cards and set special tickets. Tickets will also be available for use in 37 government-run car parks where readers will be installed at the entrance and exit gates.

Contact

- **Elisabeth Doerner** Philips Semiconductors
 ☎ +43 3124 299760
 ✉ Elisabeth.Doerner@philips.com

New-look Phone Cards

Schlumberger has unveiled a new range of Smart pre-paid phone cards including a prestige gold card, an image-boosting transparent card with a silver chip module, and a glow-in-the-dark card - for seasonal use and targeted promotions.

"These cards might be considered fun, but they are designed to help operators make a serious impact," said Lucas Witkam, Schlumberger's Product Line Manager.

Contact

- **Emmanuelle Saby** Schlumberger
 ☎ +33 (0)1 47 46 71 04
 ✉ saby@montrouge.tt.slb.com

Infineon and Toshiba Team

Infineon Technologies and Toshiba Corporation have announced an agreement to develop nonvolatile memory technology and products based on Ferroelectric Random Access memory (FeRAM). They will introduce a 32M FeRAM as their first jointly developed product for use in cellular phones. The first engineering samples are expected in March 2001 with commercialisation at the end of 2002. The collaboration will then be extended to 64M, or as far as 128M devices, depending on market conditions.

Contact

- **Marius Dittert** Infineon Technologies
 ☎ +49 (0)89 234 20168
 ✉ marius.dittert@infineon.com

Intelligent Dual-sided Reader

Applied Card Technologies (ACT), a UK Smart Card solutions provider, has developed the software for an dual-sided Smart Card reader in association with Taiko Electronics and Japanese semiconductor company OKI.

The technology has been designed for integration with virtually all existing public access devices such as vending machines, printers, PCS, photocopiers and set top boxes. ACT says that the Smart Card reader enables large organisation, libraries and universities to offer a full cashless service, together with increased flexibility and security to their users. The reader is also suitable for secure entry systems and employee verification across multiple locations.

Contact

- **Tania Beavis** ACT
 ☎ +44 (0)1249 751037
 ✉ Tania.Beavis@card.co.uk

Ten millionth SIM Card from ORGA

ORGA Card Systems (UK) has celebrated the delivery of 10 million SIM cards to GSM operator BT Cellnet. The company has been a supplier to BT Cellnet for four years and over five million cards have been shipped in the last 12 months.

Contact

- **Emma Hutcheson** ORGA Card Systems
 ☎ +44 (0)118 377 6000
 ✉ www.orga.co.uk

Netcards Joins Proton Licensees

Netcards, a Smart Card company in Riga, Latvia, has become the Proton licensee in Estonia, Latvia and Lithuania.

The company has successfully developed two Smart Card retail loyalty schemes. Also, in 1999, in association with IT provider BISS and Unibanka, Latvia's largest bank, Netcards developed an access control system for cards in the Old Town district of Riga, where over 5,000 cards have been issued out of a planned total of 20,000.

Commercial Agent for Poland

Proton World also announced that EFT Consultants, a Belgian software house, has become its commercial agent in Poland. The company is supported by its Warsaw subsidiary, EFT Consultants Polska, which has installed electronic payment systems for several large Polish customers.

Tadeusz Reczynski, Managing Director of EFT Consultants Polska, said: "We have already identified many potential users of the Proton Smart Card technology in Poland, and many of them have already expressed great interest in implementing Smart Card programmes."

Contact

- **Ms Dominique Hautain** Proton World
☎ +32 2 724 5111
✉ info@protonworld.com
- **Aris Meilands** Netcards
☎ +371 703 5709
✉ aris.meilands@netcard.lv
- **Tadeusz Reczynski** EFT Consultants Polska
☎ +48 22 817 9166
✉ treczynski@eft.pl

Smart Cards in Cardiff

Smart Card specialists Infineer have installed a new software solution to control a wide range of campus applications at 8,000 student University of Wales Institute (UWIC) in Cardiff.

The system has been designed to allow system administrators to charge users in advance for print tasks sent from multiple workstations. After sending a job to the printer, users go to the release station where they insert a Smart Card for payment. This prompts a dialogue box showing the cost of the

service, and when payment has been made, the job is printed.

The card, which displays the student's photograph and contains their personal details, can be used as student identification, payment for copying and network printing and also, using the magnetic stripe on the card, for access to buildings and car parks. The card also contains a bar code for library use. Students can top up their cards at seven wall-mounted revaluers.

Contact

- **Chris Widocks** Appleby Bowers
☎ +44 (0)161 773 5553
✉ chrisw@applebybowers.com

Secure Dual Interface Smart Card

Schlumberger has launched the Easyflex FastOS 2.0 Smart Card, which it says significantly strengthens the security available with dual interface Smart Cards.

This new multi-application MIFARE-compliant card offers strong, fast security at both the contact and contactless interfaces - with common e-purse functionality in both modes - making it suitable for building security and access, transport and parking payments and secure access to a range of city services.

La Poste - the French postal service - is adopting Easyflex FastOS 2.0 technology immediately, allowing it to upgrade its VIGIK secure access control scheme to accommodate deliveries and other services to common areas of residential buildings.

Contact

- **José de Vries** Schlumberger
☎ +33 (0)1 47 46 44 67
✉ jdevries@montrouge.tt.slb.com

Bluefish Joins MULTOS GSN

SIM card supplier Bluefish Technologies has joined the MULTOS Global Supplier Network (GSN) signalling its intention to launch GSM applications for the MULTOS secure Smart Card environment.

Contact

- **Catherine Spaul** MULTOS Press Office
☎ +44 (0)207 544 3121
✉ catherine.spaul@fishburn-hedges.co.uk

Manufacturing Plant in China

Oberthur Card Systems has announced a joint venture to open a card production plant in Shenzhen, China.

The French company has joined with Guangbang PTD, Shenzhen Xinsi Industrial Co and Guangdong Nanfang Telecommunication Equipment to set up the Oberthur Card Systems Science and Technology plant.

Production is scheduled to start in the first quarter of this year with an expected annual capacity of more than 30 million personalised cards.

Contact

- **Stephanie de Labriolle** Oberthur CS
- ☎ +33 (0)1 41 25 28 42
- ✉ s.delabriolle@obethurcs.com

CashCard for Internet Payments

Network for Electronic Transfers Singapore (NETS), operator of the Singapore CashCard programme, has signed an agreement with SmartAxis, the global payment network for electronic cash, to promote international CashCard payments over the Internet.

From the third quarter of 2001 CashCard holders will be able to shop at SmartAxis' global network of Internet merchants, purchasing items such as MP3 music, online video games and information services. The cards will be loaded with local currency, and with the use of an online multi-currency pricing tool provided by SmartAxis, NETSCash merchants will be able to accept payment by other forms of electronic cash such as Proton, Mondex and Clip, in all major currencies.

To use the service consumers will need to download the e-purse software from either www.nets.com.sg or www.smartaxis.com in the third quarter of 2001. A Smart Card reader connected to a computer will also be needed to carry out any transactions.

Contact

- **Amy Fear** SmartAxis
- ☎ +44 20 7632 5700
- ✉ amy.fear@smartaxis.com
- **Theresa Lee** NETS
- ☎ +65 3740453
- ✉ theresa@nets.com.sg

Smart Cards for Health Screening

Smart Cards are to be used by HealthScreen America, a personal health screening and health information management organisation, for the storage and management of clients personal health information. The technology will be developed and implemented in conjunction with IVI Checkmate and Metaca Corp.

HealthScreen America provides consumers with access to more than 40 high-tech screening tests for early detection of diseases and conditions including heart disease, stroke, osteoporosis, diabetes, lung cancer, thyroid conditions and prostate cancer.

When the Smart Card technology is implemented, the test results will be stored on a Smart Card via the IVI Checkmate Elite 510 terminal which will be located at each screening station. When all the tests are completed, the results can be securely downloaded from the Smart Card into the client's personal health record for future review and comparisons.

Contact

- **HealthScreen America**
- ☎ +1 877-727-3366
- ✉ www.HealthScreenAmerica.com

Unisys Voting Solutions

Unisys has announced its e-@ction Election Solutions portfolio, an end-to-end system that will improve the integrity of elections and facilitate faster, more accurate results. Teaming with Microsoft and Dell, the Unisys e-@ction Election Solutions will overcome the weaknesses of older election technology, such as punch-card ballots, by offering a fully integrated approach to election management, spanning voter registration, identification, ballot casting, tabulation, and results reporting.

Unisys is looking at combining world-class systems integration, networking and support services with innovative technologies such as digital identification, Smart Cards with biometrics and digital vote recording.

Contact

- **Susan Beck** Unisys
- ☎ +1 215 986 6036
- ✉ susan.beck@unisys.com

Healthcare Portal in Italy

IONA Technologies, the Enterprise Portal Company has announced that Lombardia Informatica has chosen the IONA iPortal Suite to build its new healthcare portal for the Lombardia region of Italy.

The portal will be an exclusive point of access that connects citizens, medical practitioners and health administration employees to all of the healthcare organisation's existing databases and business processes. Citizens will have personalised Smart Card access to their personal information via the Internet, in a secure and scalable manner.

Other Italian regions plan to follow this project and there are plans for the architecture to be extended to include areas such as education, agriculture and transport.

"Hundreds-of-thousands of people will initially have access to the healthcare portal, and it will soon be open to millions of Italian citizens," said Umberto Bussolati dell'Orto, President of Lombardia Informatica.

Contact

- **Benedicte Fillion** IONA
- ☎ +353 1 637 2531
- ✉ Bfillion@iona.com

Datakey CIP Thin

Datakey has released the Datakey CIP Thin, a Smart Card solution that extends the power of the Datakey PKI Smart Card technology to Application Service Provider (ASP) environments. Datakey has also joined the Citrix Business Alliance (CBA). Datakey's PKI Smart Card technology has been successfully tested and proven to interoperate with Citrix MetaFrame, enabling Citrix thin client users to benefit from portable, two-factor security for PKI applications hosted on their MetaFrame Server.

Website

- ✉ www.datakey.com

OTI and P-Card System Partner

OTI, a provider of contactless Smart Card technology, and P-Card System, a provider of Smart Card-based loyalty and payment systems, are to jointly launch a payment and loyalty contact/contactless Smart Card solution to issuers throughout Europe.

According to the companies, the agreement will result in the first Europe-wide currency-independent payment and loyalty Smart Card program. P-Card has placed an initial order of 1.6 million cards worth approximately US\$8 million over the next 12 months.

The scheme will be targeted initially at closed networks, transportation systems, and recreation and sporting venues. Initial implementations are scheduled to begin in Germany, and additional projects will be launched throughout Europe and also in South America.

Websites

- ✉ www.p-cardsystem.com
- ✉ www.oti.co.il

Mainstay and Datakey Team

Mainstay Enterprises has integrated Datakey Smart Card technology into its Single Access Solution product line. Mainstay has signed a reseller agreement with Datakey and placed an initial order for Smart Cards and software.

The Single Access product line is a hardware and software solution which provides the power of total integrated access control for employees, including facility or building access, computer lock-down and secure network authentication and private online communications using Public Key Encryption (PKI) in one Smart Card.

Website

- ✉ www.datakey.com

Smart Doctors

The national Clinical Assessment Authority - the new rapid response team in the UK formed to investigate concerns about individual doctors' performance - has proposed issuing Smart Cards to doctors to speed up checks by NHS trusts and to protect patients from ill, incompetent or dangerous practitioners.

The scheme is to be piloted in three health authorities from April. Initially, the cards will be rolled out to junior doctors and will include a record of pre-employment checks on doctors' suitability to work with children, police records and any convictions by the General Medical Council. Details of doctors' health and vaccinations will also be stored on the card.

US Postal Service Contracts

Cylink Corporation has deployed its NetAuthority public key infrastructure (PKI) solution as the certificate authority for the US Postal Service's NetPost.Certified, a new Internet-based service designed to secure and authenticate electronic correspondence between government agencies.

NetPost.Certified enables government agencies to obtain digital certificates - used to authenticate parties to e-business communications - provided online by Cylink's NetAuthority after users present proof of identity to the Postal Service. Users can then store the digital certificate and their private key on a NetPost.Certified Smart Card, which is then used to securely and privately send electronic files to government computers. Cylink's NetAuthority features a certificate authority, registration server, registration authority client and a toolkit that provides all the components to make applications and devices PKI-compatible.

PubliCARD and TecSec to supply USPS

PubliCARD and TecSec have announced that they have been named as providers of encryption technology and Smart Card infrastructure for the new NetPost.Certified service.

TecSec's CKM technology delivers enhanced security and scalability through its Cryptographically Enforced Access Management (CEAM) technology.

According to TecSec's Chief Technical Officer, Jay Wack, ultimately tens of millions of Smart Cards might be used. PubliCARD will supply its SmartPort Smart Card reader.

"Our CKM encryption technology, coupled with PubliCARD's reader expertise, represents a powerful set of solutions for secure enterprise networks and financial transactions," said Wack.

Contact

- **Mike Hall** Cylink Corp.
☎ +1 408 855 6390
✉ mhall@cylink.com
- **Karen Burkardsmaier** TecSec
☎ +1 703 506 9069, ext. 115
✉ www.tecsec.com
- **Antonio L DeLise** PubliCARD
☎ +1 212 651 3120
✉ www.publicard.com

First Reader for Mac OS X

ONE-O-ONE, a US-based company specialising in SmartCard interface technology, has released a Smart Card reader for Mac OS X, Apple's next generation operating system.

The K3 reader uses Smart Virtual Firmware technology and can be used in all Mac OS versions that support USB, including: Mac OS 8.6, Mac OS 9.x and the forthcoming Mac OS X.

"We are proud to be the first company to offer a Smart Card reader that can use all the exciting features of Mac OS X," said J Lim, President of ONE-O-ONE iSOLUTIONS.

Contact

- **Chris Goeltner** ONE-O-ONE
☎ +1 408 836 0300
✉ cg@one-o-one.com

SmartBOY? Solution

High tech hardware manufacturer Thendic will be presenting its latest mobile Windows CE Handheld-PC at the CeBIT 2001 trade show. Called Smart BOY?, it offers a variety of functionalities: card payments, data collection, GSM data transfer, phone calls, web access and more possibilities.

The device has been designed primarily for the B2B market. The handheld PC works with the Windows CE operating system, has a touchscreen, an integrated chip- and card-readers (optional a contactless-reader) as well as a variety of different interfaces. By plugging in a headset the SmartBOY? can be used as a mobile phone.

Contact

- **Bernd Lehmann** Thendic
☎ +49 6021 3636-0
✉ lehmann@thendic.de

Trintech Acquires Globeset

Trintech, a provider of secure electronic payment infrastructure solutions, has completed the acquisition of the primary assets of Globeset, a supplier of secure ePayment infrastructure services and products.

Contact

- **Trintech**
☎ +1 650 227 7000

Smart India 2001 - Part 2

In the Steps of a President



A village in the heart of rural India is hardly the place you would expect the most powerful head of state in the world to visit. By western standards, the village is primitive with dirt track roads, ramshackle houses, the water supply comes from pumps in the street, tractors and camels use the road while cows and goats wander at will.

But former US President Bill Clinton came here to Naila, in the Jaipur district of the state of Rajasthan to inaugurate the world's first milk collection point based on Smart Card technology. That was on 23rd March 2000.

Last month journalists from Germany, Italy Russia and Smart Card News from the UK made the same journey as part of a Smart India 2001 tour organised by ORGA Kartensysteme of Germany and their partner in India, Smart Chip, headquartered in New Delhi.

About 75 percent of India's population of 980 million live in rural areas. In this part of India, people only own a few or often only one, cow and are part of a co-operative for milk collection.

The scheme started in 1994 and last year Smart Cards were introduced to eliminate paperwork. Smart Cards have also contributed to the empowerment of women because twice a day - early in the morning and later in the afternoon, the women milk the cows and carry the milk in pails to the collection point where it is tested for quality and quantity. This data is stored in the chip in the Smart Card. Payment can be made when they wish and on a daily basis if required as is often the case.



The Smart Card provides visual identification through the photograph of the member and printed details while data stored in the card memory enables electronic tamper-proof identification of the milk supplier. The card also stores the fat content and weight of the milk from which the amount payable to the member is based. Thus the Smart Card acts as an electronic bank book.

The card used is an ORGA 1K byte memory card with the SLE 4428 chip from Infineon Technologies. The milk collection point is equipped with an electronic milk tester, a milk weighing system, a PC with a Smart Card reader, a printer and relevant software.

Also involved in the project apart from ORGA and SmartChip, are the Indian governmental organisation REIL (Rajasthan Electronics and Instrumentation Ltd) and the Jaipur Dairy, a subsidiary of the Indian National Dairy Development Board.

The project unites six dairies, each of which has its own collection points with its own members. By the end of April 2001, the Indian state of Rajasthan will have issued approximately 60,000 Smart Cards to individual members as part of the milk card project.

In Indian terms there has been a revolutionary improvement in the social position of the Indian women taking part. The increasing population and divisions in successive generations of families resulted in smaller land holdings and smaller numbers of cattle - in many cases only one cow. As a result, the marginal milk suppliers were at the mercy of the "Dhudhwala" (the urban middle man) resulting in sustained poverty. This in turn gave birth to the co-operative movements at community levels.

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But it was not until the National Dairy Development Board with the government's Department of Electronics introduced technology through Rajasthan Electronics & Instruments Limited (REIL) in the form of electronic milk testers and then electronic weighers that the villagers gained confidence in the milk society movement.

Then REIL introduced the PC-based Milk Collection Station and milk collection reached high levels making India the largest producer of milk in the world. The latest move was the introduction of Smart Cards which has improved the financial status of women. Initial studies show that their income has risen by up to 45 per cent. In addition, only they as cardholders are allowed to decide how to dispose of the money they have earned.

The project has given the women more self-confidence and is an example of women empowerment. Sanjeev Shriya, head of Smart Chip, explained: "Smart Cards are helping these women maintain correct records of milk supplies and payments, thus liberating them from the influence of exploitative practices, often prevalent in rural Indian societies. We have thus set an example of how technology can be made a platform for empowerment, even in very exacting situations."

What impressed the visiting journalists was the positive attitude of the villagers towards Smart Cards and their willingness to accept modern technology.

Contacts

- **Sanjay Dharwadkar** Smart Chip Limited
 ☎ +91 11 692 5810 -5815
 ✉ info@smartchiponline.com
- **Emma Hutcheson** ORGA India
 ☎ +44 0118 377 6010
 ✉ ehutcheson@orga.com

NBS Card Plant Now QualTeq

NBS Card Services, based in New Jersey, USA, has changed its name to QualTeq. The name change resulted from the announcement, made last November, that AmaTech AG of Pfronten Germany acquired the high security magnetic stripe card manufacturing plant of NBS. QualTeq is a leading manufacturer of plastic transaction cards in the USA, and a certified provider for Visa / MasterCard and other issuers and is ISO 9002 approved.

Al Vrancart, former President and CEO of NBS, will continue as President of QualTeq. He said: "QualTeq will reposition itself from being a secure plastic card printer to a secure IT, card based solutions provider using traditional magnetic, contact and contactless Smart Card technologies. Investment in technology will commence immediately and QualTeq will be Smart Card ready by early spring of this year."

Contact

- **Scott Magnacca** Qualteq
☎ +1 908 668 0999, ext. 213
✉ Smagnacca@qualteq.net

UCAS Convention Card

Students looking for places at UK universities and colleges are being aided by Smart Cards which eliminate repetitive form filling, completing labels to be sent a standard information pack and reduce queues at higher education conventions. The cards also enables the education centres to keep track of who is applying for places.

Called the UCAS (Universities and Colleges Admissions Service) Convention Card scheme, it is being rolled out nationally to 150,000 students. ORGA Card systems is supplying the Smart Cards, readers and software integration.

When the student visits a university exhibition stand, the card is inserted into a reader which accesses and stores the students number and date of birth as well as information on their current qualifications and preferred subject areas which can be added offline. The data is transferred to the University's central database where it can be used for personalised mailings to the student.

Contact

- **Emma Hutcheson** ORGA Card Systems
☎ +44 (0)118 377 6000

JV to Target Government Market

Vertical Computer Systems has announced a joint venture between iNet Government Services (iNet) and Apollo Industries to form SmarteGov which will pursue Smart Card opportunities in public sector e-procurement, which is estimated to amount to approximately US \$3 billion a year.

SmarteGov will be an Internet-based platform for public sector Smart Card transactions and will employ the convenience, portability and next-generation interactive data management capabilities of Web-enabled Smart Card technology. The SmarteGov Smart Card will include a conventional financial transaction card with a chip offering multi-application facilities.

According to Basil Nikas, CEO of iNetPurchasing and SmarteGov: "There is a major thrust by the public sector to offer both traditional and innovative uses of Smart Card technologies, not only for information authentication and verification, but for uses such as asset control, medical record filing, purchasing, SmartVoting, etc. Government is embracing the Internet and Smart Card technologies at an unparalleled rate," he said.

Contact

- **Sean Collins** Coffin Comms Group
☎ +1 818 789 0100
✉ Sean.Collins@coffinco.com

New Elva Subsidiary in Singapore

Elva has opened an Asian subsidiary, Elva Asia Pte Ltd in Singapore. It will be managed by Franck Crespin and will market VocaliD Smart Cards throughout the Asia-Pacific region.

Crespin was previously in charge of sales and marketing for Elva and area manager for Asia.

"This expansion further enhances our reach into a market of over two billion people and nearly two thirds of the world's population," said Cedric Colnot, President of Elva.

Elva's new office address is: ELVA Asia Pte Ltd., 7500A Beach Road, The Plaza #14-306/307, Singapore 199 591.

Contact

- **Franck Crespin** Elva Asia
☎ +65 299 36 67
✉ +65 299 34 59

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Biometric Protected Smart-e-Card

Global TeleMedia International has announced an agreement with AcSys Biometrics to couple their HNeT-Holographic/Quantum Neural Technology with the advanced financial services platform of the BentleyTel Smart-e-Card to create the BentleyTel AcSys card.

The HNeT face recognition technology is said to be able to track up to four individuals and classify at 30 frames per second, with recognition time in under one second.

BentleyTel AcSys cards will be sold via the Internet and Telemarketing or can be provided to large employers and Government agencies. Once purchased initial enrolment can occur through the Internet, the employer or BentleyTel Smart-e-Cash machine, which has a built-in camera.

HNeT recognition starts when a cardholder approaches the Smart-e-Cash machine at a distance 6-10 ft, by the time the member has reached the machine he is recognised and a swipe of the card grants or denies access in the event that the cardholder is not the true owner of the card. No file is stored on the card and the Hologram HNeT file takes only 12k of memory on a server.

The system is successful even against twins. The HNeT system, which, updates an individual file for changes in appearance or age every time the card is used, is patented or has patents pending in over 20 countries.

Contact

■ Action Stocks

☎ +1 800 801 5181

✉ GLTI@actionstocks.com

Keyware and Gemplus Partner

Keyware, a provider of biometric authentication solutions, and Gemplus are partnering to promote Smart Cards with biometric technology.

Francis Declercq, President and CEO of Keyware, said: "The growth of both wireless technology and Smart Card applications gives individuals and businesses a level of convenience never before imagined. Keyware's centralised authentication server technology with LBV - Layered Biometric Verification - can quickly and easily be applied to Gemplus Smart Card solutions."

US \$1.5m contract

Keyware also announced a \$1.5 million contract with Context Systems, a provider of network security solutions and PKI enabled applications based in Milan (Italy) and Galway (Ireland). Under the agreement Keyware appoints Context Systems as a VAR (Value Added Reseller) for its authentication and biometric products.

In a related agreement, Keyware will be authorised to use Context Systems' PKI software on a license basis. The implementation of this open architecture PKI software into Keyware's authentication products enables Keyware to centralise different PKI enabled applications from several vendors into its Centralised Authentication Server (CAS), allowing identification and verification of users.

Contact

■ Elizabeth Marshall Keyware

☎ +1 781 933 1311 ext. 235

✉ emarshall@keyware.com

Smart Cards in Drug Treatment

Netsmart Technologies is to install its SmartMED system at five Addiction Research and Treatment Centre (ARTC) methadone clinics located in New York City, USA.

The Smart Card will be rolled out to over 3,000 patients by mid-2001. The SmartMED card is used for ID - through biometrics - storing clinical and dosage information, counselling records, amount of time patient spends at the clinic and the card also allows patients to have access to their own medical records through a PC kiosk located at the clinic.

John Phillips, Vice President of Netsmart Technologies, said: "Methadone, which is utilised in the treatment for heroin addiction, is one of the most heavily regulated and monitored medications in use today. Because of the importance of this drug in rehabilitating addicts, and that it is administered on a daily basis, it is imperative that efficient, accurate treatment and record-keeping be ensured."

Websites

✉ info@csmlcorp.com

✉ www.netsmarttech.com

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Paying for Pizzas on the Doorstep

Wildcard Wireless Solutions is to conduct an extensive field trial of its mobile electronic fund transfer point of sale (EFTPOS) device, the TransAKT, with Canada's largest Domino's Pizza franchisee, the Mad Pizza Company that operates 40 Domino's stores in Canada and 18 in the US.

Wildcard's initial TransAKT terminal is designed as an intelligent "clip-on" accessory to Motorola's StarTACCDMA mobile phone, providing voice, data and transaction capability in one device.

Customers will have the option to pay for their delivered pizza with credit and PIN secured debit cards right on their doorstep. In the coming months, TransAKT devices will also be able to accept check, loyalty and Smart Card transactions.

Contact

- **William Atkinson** Wildcard
☎ +1 604 688 3864
✉ billa@wildcardwireless.com

GPRS Network for China Mobile

A framework agreement between China Mobile and its equipment suppliers has been reached for the first-phase of a General Packet Radio Service (GPRS) network project. According to China Computer World, the GPRS network will supply high-speed broadband services to cellphone users in 25 cities throughout 16 of China's provinces.

Website

- ✉ www.chinamobile.com

More Companies Join SIMalliance

The SIMalliance, which was founded in early 2000 by leading SIM card manufacturers, has welcomed Bull and Graphium Danmark A-S to its group. SIMalliance addresses medium and long-term issues such as interoperability, Public Key Infrastructure (PKI) security, GPRS and bearer independent protocol technology. SIMalliance standards will be proposed to ETSI for formalised, global standardisation.

Contact

- **Vincent Biraud** Chairman, SIMalliance
☎ + 33 (0)1 47 46 57 58
✉ info@simalliance.com

Nokia and 2Scoot Trial

Nokia and 2Scoot have teamed to begin technology trials enabling customers to use their Nokia phones for mobile cashless payments at two national chains of quick-service restaurants in Raleigh, N.C., USA.

When a customer is ready to pay for goods and services they can simply present their phone to the 2Scoot scanner at the point of sale. For example, a consumer can drop by a fast-food restaurant, place an order, drive to the pick-up window and present his or her phone to the scanner and pay for the meal quickly and conveniently. 2Scoot's technology links to a customer's existing credit card, automatically authorising and clearing payment at sub-second speed at the point of sale while taking measures to guard the consumer's privacy.

Contact

- **Megan Matthews** Nokia Inc
☎ +1 972 894 4267
✉ megan.matthews@nokia.com
- **Kathy Yanas** 2Scoot
☎ +1 845 338 0270
✉ kyanas@2scoot.com

Java-based Mobile Phones

Two groups are currently developing Java-based mobile phones. J-Phone Group and UK-based Vodafone Group have teamed up and J-Phone group will equip the new phone with the Java 2 platform, micro edition (J2ME), a Java-execution environment developed by Sun Microsystems for built-in equipment.

NTT DoCoMo group also has plans to launch a Java-compatible mobile phone called 503i by the end of this year at the earliest.

BT Cellnet Contract for ReD

Retail Decisions (ReD), international Card fraud prevention specialist, has signed a two-year risk management contract with BT Cellnet. The contract provides additional payment card authorisation services for the purchase of call time for BT Cellnet's prepay mobile phones.

Contact

- **Carol Romeo** CBK Group
☎ +1 973 925 2661, Ext. 110
✉ carol@cbkgroup.com

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WAP-based m-Commerce Security

Schlumberger and Openwave Systems - the combination of Phone.com and Software.com - have announced an agreement to increase security of m-commerce transactions via WAP (Wireless Application Protocol)-enabled phones.

They plan to define the interfaces allowing Schlumberger WAP Identity Module (WIM) cards to be integrated with the Openwave's UP.Browser. The WIM interfaces, expected to be released in the first half of 2001, are designed to accelerate the adoption of m-commerce services by enabling mobile phone manufacturers to add user authentication features used by financial institutions and merchants to their phones.

Once integrated into a mobile phone equipped with the UP.Browser technology, the WIM will be able to digitally sign the transactions made by the subscriber for user authentication.

Contact

- **Emmanuelle Saby** Schlumberger
- ☎ +33 (0)1 47 46 71 04
- ✉ saby@montrouge.tt.slb.com

Ericsson Ends Mobile Production

Ericsson is transferring its mobile phone production to Flextronics in an alliance that will be effective from 1 April. Flextronics will take over all related Ericsson facilities in Brazil, Malaysia, Sweden, UK and parts of the US plant in Lynchburg/Virginia. The Joint Ventures in China will not be affected.

The company is looking to focus more on R&D, development, design and sales and marketing and says that by the end of 2001, the Consumer Products Division will employ approximately 7,000 employees compared to 16,800 at the end of 1999.

"In light of a significant change in the world market for mobile phones we have decided to fundamentally change the set-up of our business," said Jan Wäreby, Executive Vice President, Ericsson Consumer Products Division. "The alliance with Flextronics will enable us to achieve economies of scale and volume flexibility. We are committed to remain a top player in mobile phones."

Contact

- **Pia Gideon** Ericsson
- ☎ +46 8 719 2864
- ✉ pia.gideon@lme.ericsson.se

Bluefish and mobEcom Partner

SIM card supplier Bluefish Technologies and secure SIM platform provider mobEcom are partnering to promote secure m-commerce solutions based on mobEcom's SecureSIM card platform.

By placing the personalisation and security inherent in the SIM, within the MULTOS secure Smart Card environment, SecureSIM will offer secure payment and value transfer capability to and from the mobile phone or device. The solution will be presented to network operators, initially throughout Europe, the Middle East and Africa.

Collaboration with Telemac

Bluefish and Telemac Corporation, a player in network-independent billing and accounting technologies for the wireless industry, have announced a co-marketing agreement to jointly market their technologies to wireless service providers worldwide.

Currently Telemac's patented IMA-Module is resident in over nine million mobile phones to control real-time accounting and billing activities, such as pre-paid wireless services. Once ported to the SIM, availability of Telemac's solutions will no longer be handset-dependent.

Contact

- **Scott Allen** Bluefish Technologies
- ☎ +44 (0)700 2000 900
- ✉ scott.allen@bluefish-tech.com
- **Dr Barbara Miller** mobEcom
- ☎ +44 (0)131 6229500
- ✉ barbara.miller@mobec.com
- **Kristin Johnson** Telemac
- ☎ +1 310 568 6585
- ✉ media@telemac.com

Gemplus Unveils 3G Card

Gemplus has launched the GemXplore 3G family of products following the commercial delivery of its first USIM card (Universal Subscriber Identity Module) for the 3G marketplace. GemXplore 3G has already been delivered to a number of operators in the Asia Pacific region.

Contact

- **Severine Percetti** Gemplus
- ☎ + 33 (0)4 42 36 67 67
- ✉ severine.percetti@gemplus.com

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Amex Internet Shopping Card

American Express, which set the pace with its Blue Smart Card, has now introduced a prepaid Internet Shopping Card along with 7-Eleven which has more than 21,000 convenience stores worldwide.

Called the 7-Eleven Internet Shopping Card, it can be used to make online purchases just about anywhere American Express Cards are accepted.

The cards, which are being sold exclusively at participating 7-Eleven stores in the United States, can be loaded with value from \$25 to \$1,000 and can be reloaded with additional funds and used as stored value cards for more online shopping. The cost for the new card is the denomination value plus an additional 4 per cent load fee charge.

“The 7-Eleven Internet Shopping Card can be used like an American Express credit or charge card to buy goods and services online,” explained Tim McCallum, Category Manager for Prepaid Services at 7-Eleven.

“They offer people who do not have a credit card the convenience of shopping online and make for an exciting, flexible electronic gift certificate.”

Using cash or a credit card, a customer may purchase a shopping card at the register of any participating 7-Eleven store. Once activated by the sales associate, the funds become immediately available to pay for purchases online or at a 7-Eleven store.

Patricia Alexander, Vice President of American Express Stored Value Group, said: “By partnering with 7-Eleven on the Shopping Card, we can offer millions of Americans, particularly those without a credit history - an easy way to make online purchases just about anywhere the American Express Card is welcomed.”

Websites

- **7-Eleven**
 www.7-eleven.com
- **Amex**
 www.americanexpress.com

EuroSignCard Joins SC Alliance

Luxembourg Smart Card integrator EuroSignCard S.A. has joined the Smart Card Alliance. Headquartered in Luxembourg, EuroSignCard provides security technology for electronic transactions to commercial and government organisations. Euro SignCard's products include Public Key Infrastructure (PKI) architectures, Smart Cards, and cryptography techniques.

David G Sweigert, the company's Managing Director for technical operations, said: “Our clients are demanding interoperable and open solutions to authentication and identification problems in e-Commerce; the Smart Card Alliance provides us a venue to follow key industry developments.”

Contact

- **Maryse Brekoo** EuroSignCard S.A.
 +352-262-072-0
 brekoo@eurosigncard.lu

Radicchio and mSign Merger

Two leading international industry bodies, Radicchio and the mSign Consortium, are partnering to establish a standard for digital signatures and a uniform, international framework for security in the mobile e-commerce industry. They plan to formally merge their international activities later this year, which will combine the intellectual capital of the two organisations and create a clearer focus for future activities.

Contact

- **Lucy Park** Nelson Bostock -for Radicchio
 +44 (0)20 7229 4400
 lucy.park@nelsonbostock.com
- **Markus Hermsen** Hiller, Wüst & Partner -for mSign
 +49 6021 38666-15
 m.hermsen@hwp.de

Oberthur's Mobile Music Forum

Oberthur will be launching the Mobile Music Forum at its SIMphonic Conference during the 3 GSM World Congress being held in Cannes 20-23 February.

Suzanne Vega, whose track “Tom's Diner” was one of the first to be digitally compressed, will be there when the Mobile Music Forum reveals its mission: to build a secure technical framework and business model to ensure that the future of music access from wireless terminals benefit all players from both the music and the mobile telephony industry by protecting the content and access rights. The major players in the Smart Card industry have, in the past, enjoyed being fiercely competitive, but at Cannes they will reveal for the first time their recent work together to realise complete inter-operability.

At Cannes Oberthur will be demonstrating its end to end Java based Universal SIM card, the SIMphonic 3G which will deliver music and games via mobile technology.

Contact

- **Stephanie de Labriolle** Oberthur
 +33 141 252842
 www.oberthurcs.com

Briefing Notes on Multi-Application Smart Cards – Part 12

Loading & Creating Programs on the Schlumberger Cyberflex Smart Card

Once you have written your JavaCard application, the next step is to load it onto a card so it can be used. This month we will look at the sequence used on Cyberflex smartcards to load and instantiate a program. It should be noted that the details are specific to Cyberflex, although the general principals apply to all JavaCards.

It should also be noted that there is a general purpose protocol proposed by Visa, called the Visa Open Protocol, that can be used by smartcards for loading programs. This standard, currently at version 2.0, is gaining wide acceptance within the industry. Unfortunately, the version of Cyberflex we are using does not support VOP.

The process of installing a program on the Cyberflex card consists of 2 steps. Firstly, a file holding the program code must be created on the card. This is the code that the programmer writes, and for Cyberflex cards these programs are stored on the PC in files ending in .bin. Secondly, an instance of the program is created on the card. Both steps need not be completed in the same session.

Before we examine these steps we need to look at security briefly.

Security

As a card issuer, you don't want just anyone installing and deleting files and programs on your card. Any card that is fit to be used for real must have some sort of permission framework. This ensures only the people who should alter the card can do so. The Cyberflex card uses identities to grant certain rights on the card, and a user identifies which role they are in by presenting a shared secret. To load and create a program a user must validate themselves in a role that can do so.

Furthermore, a program loaded onto a card must be digitally signed. Once the program has been loaded the signature is calculated by performing a triple DES encryption operation on the program file data, with the last 8 bytes of the ciphertext being the signature. This is presented to the card operating system, which performs the identical operation. If the two signatures match (one having being generated by the user, the other by the card) then this proves the user has the signing key that the card has, and is entitled to load this program onto the card.

In the following explanation you will see where these steps occur in the loading process. In what follows, the data sent to the card is presented as follows:

```
00 A4 00 00 02 [SELECT FILE]
 3F 00
>61 17
```

(N.B. this sequence is just for illustration, it does not form part of the load sequence)

The first line is the header of the APDU sent to the card, and the next line is the data (if any) of the APDU. The final line, with the '>' character, is the response to the command. You may remember that a result of 90 00 indicates success, and a response of 61 xx indicates there is xx bytes of data still to be read (i.e. 61 xx can be read as a success indicator as well).

Loading the program

Before actually loading a program onto the card, you must prove you have the rights to do so. The following sequence assumes the identity of AUTO (a Cyberflex identity) which has the necessary rights.

```
00 2A 00 00 08 [VERIFY KEY]
 AD 9F 61 FE FA 20 CE 63
>90 00
```

The data is the shared secret, which both you and the card operating system know (it is loaded at some previous time onto the card). The card compares this data with its own copy of the secret, and as they match it returns success (90 00). This identity is now in place until the card is reset or a command explicitly 'logging out' is sent.

Now a file to hold the data must be created.

```
00 E0 00 00 10 [CREATE FILE]
01 D0 22 25 03 01 00 00 FF 00 00 00 00 00 00
>90 00
```

The data supplied in this command set various properties of the new file to hold the program code. For example, the first 5 bytes sets the size to 464 bytes (01 D0), the file number to 22 25 and that it is to hold program code (03).

Now a program on the card is used to actually load the data. The command to select this program is:

```
00 A4 04 00 00 [SELECT LOADER]
>90 00
```

Now the data for the program is split into chunks (you can only load chunks of up to 255 bytes at a time, as the length is indicated by one byte) and loaded onto the card.

```
00 D6 00 00 A0 [UPDATE BINARY]
03 02 41 07 00 ..... 11 60 00 37 03
>90 00
```

```
00 D6 00 A0 A0 [UPDATE BINARY]
21 52 00 16 13 ..... 63 08 5D 00 1E
>90 00
```

```
00 D6 01 40 80 [UPDATE BINARY]
13 5E 00 23 59 ..... 59 00 00 00 00
>90 00
```

In the above sequence the code was loaded in 3 chunks. The first 2 chunks held data of 160 bytes (A0 bytes, cut for readability) and the final held 128 bytes (80).

The final step in loading the program is to validate it to the card.

```
00 0A 01 00 08 [VALIDATE PROGRAM]
AE 22 FE 3F 29 AC 65 96
>90 00
```

The 8 bytes of the data is the signature, or MAC, calculated using the default signing key. The MAC is generated using Triple DES in CBC mode. When the card receives this data it performs the same operation (the card has the key in a special file) and compares the result. If they match, the program is marked as OK.

This completes the steps to load a program onto the card. To actually use it, an instance must be created.

Creating a program instance

Creating an instance makes a program useable. It should also be obvious that numerous instances can be created from one program file, each one having their own copies of local data. So, if you have created a loyalty program you could create an instance for different schemes, and each one would have their own balance.

To create an instance the command is:

```
00 0C 13 00 1C [EXECUTE INSTALL]
01 22 25 01 2C 23 00 00 C8 00 0C 73 69 6D 70 6C 65 73 74 72 69
6E 67 00 00 00 00 00
>90 00
```

Included in the data above is the sequence 73 69 6D 70 6C 65 73 74 72 69 6E 67. This contains the application identifier (AID), which in this case is 'simplestring' in ASCII hexadecimal. The AID is used to select the program.

Jon Barber

People on the Move

Dione has appointed **Beverley Harrington**, formerly an external consultant to Visa International, as Head of Technical Sales.

Bluefish Technologies has appointed **Martin Dilks** as its new Technical Manager.

John Elliott has joined mobEcom as Principal Architect from Consult Hyperion.

Datacard Group has appointed **Martin J Kearsley** as Senior Vice President and Managing Director of its new software and solutions division. Previously, he served as Managing Director for Racal subsidiary Zaxus International.

Miotec Oy has appointed **Ari Saapunki**, formerly Principal Engineer at Nokia Internet Communications, as CTO; **Timo Taurula**, previously a consultant at Computer Associates Finland, as R&D Manager; and **Jukka Korhonen**, formerly Development Manager at Sonera Oyj's New Communications Services unit, as Sales and Export Manager.

Aladdin Knowledge Systems has appointed **Leedor Agam** as Vice President of eBusiness and eToken Solutions. Previously, he served as Vice President of Business Development for Cylink.

Leapfrog Smart Products has appointed **Dr Les Bromwell** as CEO and President of Leapfrog Smart Products, from Chairman of its Leapfrog GlobalIC Products' subsidiary.

Hitachi America has appointed **Howard Shearer** as President of Hitachi Canada, succeeding **Masakazu Hamada** who will return to Japan. Previously, Shearer was Vice President and General Manager of Hitachi Canada, semiconductor sales.

Hypercom Corporation has named **O B Rawls IV** as Senior Vice President and General Manager, US and Canada. Previously, he was Executive Vice President of Operations of Caredata.com. He succeeds **John Marshall**, who has been promoted to Senior Vice President, Office of The President.

Marc Kekicheff, Vice President of Emerging Technologies at Visa, has joined GlobalPlatform in the new post of Technical Director.

Ramanuj Banerjee, previously with SmartAxis, has joined ActivCard Inc as Director Technical Consultant at their Californian office.



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- SCN's News On Line service via e-mail
 - Subscriber : free subscription for one year
 - Non-subscriber : £100 per person / €156 / \$147
 - One week trial : free of charge
- [If you wish to purchase a multiple user licence please contact Smart Card News Ltd for current rates.]

Here is my e-mail address:

- SCN's Information Datasphere [www.smartcard.co.uk]
- One year membership : £495 / €773 / \$730

User Name: _____

Password: _____

- SCN's Multi Application Toolkit
- Subscriber: £250 per course / €390 / \$369
- Non-Subscriber: £550 per course / €858 / \$811
- Shipping : Inclusive
- [+ VAT where applicable]

These products may be purchased directly by visiting our on line store: <http://store.smartcard.co.uk>

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Position _____

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Brighton, East Sussex BN2 8WX United Kingdom

or facsimile : + 44 (0) 1273 516518

or e-mail : scn@pavilion.co.uk

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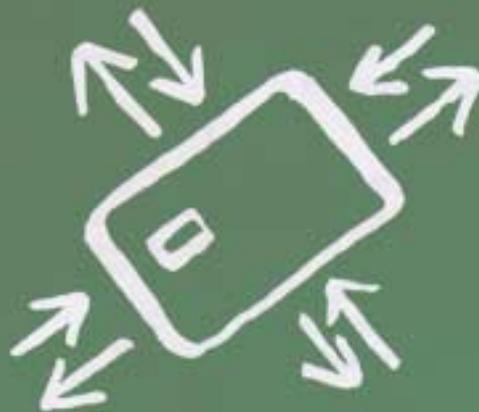
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ORGA – Smart Solutions for the Smart Card Market

The smart card industry is continuing its rapid growth. To be a leading supplier within the smart card market you have to be a truly international organisation. ORGA Card Systems, a founder of the smart card industry, offers the complete product range to a number of markets including; GSM, Communications, Banking, Retail, Loyalty, Health, Leisure, ID and Access Control.

To be at the forefront of these smart card markets talk to ORGA.



For more information:
www.orga.com

ORGA Card Systems (UK) Ltd.

255 Wharfedale Road
Winnersh Triangle
Wokingham
Berkshire RG41 5TP
Great Britain
Phone: +44-118-377-6000
Fax: +44-118-377-6001
Email: info@orga.co.uk

ORGA Kartensysteme GmbH

International Headquarters
Am Hoppenhof
33104 Paderborn
Germany
Phone: +49-5251-889-0
Fax: +49-5251-889-1889
Email: info@orga.com


The Smart Card Integrator