



www.atmel.com

Atmel

A navigators joy, no need for a GPS system here. The Atmel site is beautifully constructed in such a way that everything can be found with a few clicks, from a simple overview to a relatively detailed product specification. The detailed page index was well thought out which made it easy to find the area of interest without getting lost in irrelevant sections. The asthetics of the site was refreshingly simple with simple uncluttered pages. The offer of a video to describe the Atmel Smart Card products seemed a great idea but you really can't show a presenter with a background Powerpoint presentation in 1/8th frame mode on the average display. A lost opportunity here, the content was interesting but a narration over a flash presentation would have been far more useful. None the less a good site with an effective search engine.

- Navigation
- Content
- Appearance



www.gdai.com/home.htm

Giesecke and Devrient

Finding your way to the Cards and Card Systems section was painless - listen out for the audio announcement. The site has a simple look and index system but seems to have a strange search engine. Self-fulfilling perhaps but I'm now convinced that problems with the search engine is an early indicator of lack of content and this proved to be the case with the Giesecke and Devrient site. It was disappointing because the site starts off being educational in all aspects of the card business, but stops short of telling you what you really want to know. If only there had been links to more detailed documents. At the end of the day the searcher ends up being unsure of the products that the company is offering - Smart Card operating systems in the form of Starcos, Sm@rtCafe and Multos are listed but there seems to be nothing to go with them.

- Navigation
- Content
- Appearance



www.st.com/smartcard

STMicroelectronics

Listen to the whoosh, 20 years in Smart Cards. Not as visible as they used to be but none the less one of the Smart Card chip leading companies. Simple but effective the navigation of the site is relatively straightforward. The products are clearly identified in their families with top level overview documents. It was the next stage that lets the site down: more detailed specifications have to be requested for transmission by e-mail using a request form which did however produce a quick response, but why can't I just download the documents from the site? The search engine was comprehensive but seemed difficult to focus on the target subject. Although there was good content on this site it could have gone much further by a bit of careful linking for more detailed subject resources.

- Navigation
- Content
- Appearance





Pay TV Piracy Row Erupts

News Corp. Company Accused of Exposing Rival Smart Card Technology

French Digital TV company Canal Plus Group has begun legal action against NDS Group over claims that NDS attempted to attack its competitive position in the European digital television market by revealing its previously unbroken security code. The dispute centres around Canal Plus' Smart Card security system that had been developed to ensure that only authorised customers have access to digital television signals.

It is alleged that NDS, which is owned by Rupert Murdoch's News Corporation, secretly commissioned a team of scientists based in Haifa, Israel, to crack the encryption code used in the Canal Plus Smart Cards. It is estimated to have cost \$5m for scientists to unravel the code which was previously considered impossible to crack.



NDS' own encryption process occupies 40% of the digital market with around 27m subscribers but the competing Canal Plus technology is used by the majority of its competitors in Europe and the US. Canal Plus is controlled by Vivendi Universal, the company founded by Murdoch's great rival Jean Marie Messier.

It is claimed that the code was cracked by the Israeli team after six months and by 1999 the pirated code surfaced on a number of major hacking websites including the infamous 'House of Ill Compute' and other sites such as DR7.com. By September 2000 Canal Plus claim the European market was 'flooded' with counterfeit cards with the Italian market particularly effected.



Canal Plus are to sue NDS for \$1.1bn in damages for violating copyright rules and damaging its business which includes an estimate of customer loss, cost of technical efforts to develop countermeasures and the issuing of new Smart Cards for clients. The group said it planned to issue new versions of the card beginning next month in Spain and hopes to replace all its 12m subscriber cards by the end of the year.

François Carayol, Executive Vice President of Canal Plus, said: "The future of digital television depends on the industry working together to combat signal theft and to protect the integrity of distribution systems... We certainly didn't expect our investigations to lead us to NDS."

Meanwhile, NDS chief executive Abe Peled said in a statement that Canal's piracy problem "is due solely to the inferior nature of Canal Plus's conditional access technology...and its failure to deal with piracy once it began." Peled also claimed that Canal Plus had approached NDS regarding a merger late last year and had even attempted to headhunt the NDS employee accused of leaking the Canal Plus code.

The suit was filed in the US District Court for the Northern District Court of California. It alleges violations of The Racketeer Influenced and Corrupt Organizations Act, The Copyright Act, the California Unfair Competition statute, and other violations of tort law. Other Pay-TV companies reliant on the Canal Plus technology, such as ITV Digital in the UK, are believed to be considering separate legal action.

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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





Government Card Schemes

A controversial Smart Card-based scheme to tackle road congestion by charging drivers for using roads in London was given the go-ahead this month. There was also further support for a national Smart ID Card in the UK, while in the Far East, the governments of Thailand and Hong Kong both pressed ahead with Smart Card ID schemes.

Ken Livingstone, Mayor of London, signed Transport for London's (TfL) congestion charge scheme order and set the "go-live" date as Monday, February 17, 2003. Drivers will pay for road tolls and city access with Smart Cards linked to a satellite navigation system.

TfL predicts that the scheme will reduce traffic in central London by 10-15%, delays by 20-30% and raise £130 million to £150 million per year (not including £30 million per year expected from penalty charges). By law the revenue from congestion charging will be invested in improving the capital's transport system for at least 10 years.

The scheme order confirms a charging zone within the Inner Ring Road and a £5 standard charge. Charging hours will run from 7am to 6.30pm, Monday to Friday. There are exemptions for emergency vehicles, motorbikes and mopeds, buses and coaches; and discounts for certain categories of people, for example, a 90 per cent discount for residents within the charging zone.

Ken Livingstone said: "For the first time there will be a serious attempt to tackle the chronic traffic congestion in central London."

Also this month, the UK Passport Service threw its weight behind plans by the Home Office for a national ID card by proposing that the card be available for use as a passport by 2006.

Bernard Herdan, Chief Executive of the UK Passport Service told Computing magazine that the card could hold digital facial, iris and fingerprint scans and that scanning stations could be set up at post offices or other designated centres.

The government is already using the technology in the Application Registration Card (ARC) for asylum seekers (SCN Vol 11, No.2, p23). The Smart Card includes fingerprint technology. The Home Secretary, David Blunkett, is to publish a consultation paper in the spring or summer on his plans for compulsory

national ID cards, called "entitlement cards" suggesting additional uses for the card such as entitlement to healthcare under the national Health Service, education and social security benefit payments.

The Thai government approved plans to launch a Smart ID Card to cut fraud and bureaucracy. It will replace the current card - a typed piece of paper with a photo laminated in plastic - which only gives a person's name, date and place of birth and place of citizenship registration. The new e-card may later incorporate tax, health and social security applications allowing citizens to carry a single card.

The scheme is estimated to cost 143 million baht (\$3.3 million) for the first year, rising to 1.813 billion baht (\$41 million) after completion of the project, which is expected to take three years and will linkup 6,745 district offices by computer.

The Hong Kong government awarded its national Smart ID Card contract to a consortium led by Pacific Century CyberWorks (PCCW) in a deal valued at \$163 million. The consortium, comprising SecureNet Asia, Cogent Systems, Keycorp, ACI Worldwide, Mondex International and Trub, will implement the Smart identity card system and supply 1.2 million blank Smart Cards to the government.

The Immigration Department will begin issuing the new cards in the middle of next year and start to replace existing cards a few months later.

Smart Cards for Rescuers

Giesecke & Devrient has joined in the National Hazmat program with the International Union of Operating Engineers and several governmental agencies to provide a Smart Cards ID solution to be used at disaster sites. In the initial phase of this program, the cards will be issued to graduates of the IUOE training class.

The new Smart Card is expected to replace the paper-based system that is currently used by hazardous material teams and rescue teams at chemical and biological hazardous sites worldwide resulting in fast and accurate authentication, and firm control by the operating agency of the rescue mission at the disaster location.

Website

- Giesecke & Devrient
 www.gdai.com





EMV Momentum Continues in Europe

The drive to migrate magnetic stripe bank payment cards to EMV (Europay/MasterCard/Visa) chip cards continues in Europe with developments in the UK, Austria, Switzerland and France.

SchlumbergerSema has been selected as the Smart Card supplier for HSBC Bank's migration to EMV chip cards in the UK. The bank has 1,700 branches in the UK and SchlumbergerSema will supply Visa chip cards which will be manufactured and personalised at its Fareham plant in the south of England.

In Austria, 2,200 ATMs (82% of all ATMs in Austria) are now able to accept EMV based transactions for all Europay/MasterCard branded cards following the completion of a joint programme by Europay International, MasterCard's partner in Europe, Europay Austria and APSS, the operator of Austria's largest ATM network.

The 16-month project makes Austria the sixth European country (after Belgium, Denmark, Slovakia, Spain and Sweden) to secure live EMV chip ATMs for Europay/MasterCard cardholders.

"The migration to chip is a necessary step against fraud for payment systems," said Martin Deutscher, Project Manager, Europay Austria.

Germany's Giesecke & Devrient (G&D) is to supply Swiss banks with an EMV chip for ec/Maestro cards. The chip, called StarCH, will combine an EMV debit application with CASH, the Swiss banking electronic purse based on the Proton R3 specification.

G&D has also joined forces with ACI Worldwide to help financial institutions and other businesses launch and manage Smart Card programs as part of the push toward EMV compliance. The new alliance will evolve around ACI's Smart Chip Manager application.

"Whether migrating from magnetic stripe to chip cards, or launching an ID card program, our partnership with ACI gives us the ability to offer card issuers a high performance and very flexible system - one that is capable of issuing tens of thousands of cards a day and managing millions of cards," said Christian Hirschvogel, partnership and alliance manager at G&D.

The Swiss banking community is to migrate its 3.7 million ec/Maestro cards to EMV in a joint project led by Europay Switzerland. The banks plan to pilot the new cards internally in July 2002 with roll-out scheduled for 2003.

France-based Gemplus announced the launch of its EMV Prime, a suite of solutions designed to guide banks on the path to migration and claims they can reduce total costs by up to 25%. Gemplus says the solutions have been devised to meet customer requests for packaged products and services that reduce migration complexity, limit operational risks and reduce time to market.

Website

■ Europay International

 www.europay.com

Migrating Large Merchants to EMV



The majority of EU banks have now agreed to meet the milestones to achieve critical mass of cards and terminals within their jurisdiction by 2005. However, more than 65% of the merchant sale volume of this critical mass is transacted through large retailers who manage their own terminals / EPOS systems.

The challenge therefore to the banks and the payment schemes is to encourage the migration of at least 700,000 terminals located at large merchants to EMV. This would seem to be a small quantity when compared to the 3.5m stand-alone POS device, which are owned/managed by banks. In many cases members also have access to funds to subsidise POS migration.

At first sight the large retailers would seem certain to comply, as the net benefit of "reduction in fraud" is considered positive to all parties. In reality, the large merchants have to consider the long-term effects of changing their systems, which typically have lifetimes of 7-10 years and hence timing and investment is crucial. Furthermore the availability of EMV compliant solutions is normally the domain of their systems integrators, who in turn are waiting on orders from their customers.

To break this chicken and egg situation, Visa EU is proactively working with TEN vendors who represent the key merchants to develop EMV ready solution for delivery during 2002. Further more it is working with regional acquirers to identify the placement of subsidised terminals at high card volume merchants.

Over the next months we will see the fruits of our hard work said Waqar Qureshi, Head of Chip Infrastructure, Visa International EU. We will see some of the well known high street names in the UK, France and Scandinavia making public their announcements in favour of EMV, and not only for the sake of "reduction in fraud".

More details of Visa's EU chip migration programme can be found at www.visaeu.com

Contact

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Identix and Visionics to Merge

Identix and Visionics Corporation are merging in a \$600 million all-stock transaction to create a multi-biometric security technology company bringing together a broad range of leading biometric technologies including fingerprint, facial recognition and imaging.

When the merger is completed Robert McCashin, current Chairman and CEO of Identix, will serve as Chairman of the new company and Dr Joseph J Atick, current Chairman and CEO of Visionics, will serve as CEO. Jim Scullion, President and COO of Identix, and Erik Prusch, CFO of Identix, will assume the same roles in the merged entity.

Biometrics for Airports

Airports in Australia are set to install biometric iris reading software in order to speed up international visitor processing, according to Australia's Canberra Times. The software will be developed by Dutch firm CMG and will use Smart Cards to hold traveller's details without any need for airport staff to view a passport.

In the US, Identix announced orders from five new US airports for its Identix Live Scan TouchPrint 2000 Applicant Fingerprint Systems (TP 2000 AFS). The airports are the Gerald R Ford International Airport in Grand Rapids, MI; Monterey Peninsula Airport, California; Albany International Airport, New York; Richmond International Airport, Virginia; and The Eastern Iowa Airport, Cedar Rapids.

The systems will be used to assist the airports in complying with the employee background check requirements of the Aviation and Transportation Security Act. Installation of all of the systems is expected by the end of this month.

Match-on-Card Technology

SchlumbergerSema and Precise Biometrics have announced the integration of the Precise Biometrics fingerprint Match-on-Card technology with the SchlumbergerSema Cyberflex Access and Cyberflex Palmera Java-based Smart Cards. The integration enables SchlumbergerSema to bring to market Smart Cards that use the card-owner's fingerprint as identification authentication instead of, or in addition to, a PIN.

The SchlumbergerSema cards were the first Visa Open Platform JavaCard 2.1 Smart Cards with cryptographic capabilities to make the Match-on-Card application possible last year, and are now the first to put this

capability into the application programming interface (API), as proposed to the Java Card Forum. These developments follow the signing of a joint agreement between the two companies.

Precise Biometrics' fingerprint authentication system is highly secure and convenient to use; authenticating the user by matching the fingerprint to one digitally stored on the Smart Card. This most recent innovation allows the authentication capability to be directly accessed via the cards API, greatly improving the performance and allowing other card applications to easily use the function.

Access Fingerprint Reader

Cansec has launched Zodiac, a biometric fingerprint reader which will store the user's fingerprint on a contactless Smart Card developed by Inside technologies. The reader will allow implementers to update their conventional access control system without altering the existing access control panel or host software.

Hypercom Ships 5mth Terminal

Hypercom President and CEO Chris Alexander has announced that the company has shipped its 5 millionth point-of-sale information and transaction terminal. The Hypercom ICE 5500 terminal was shipped to European electronic transaction solutions provider alphyra Group.

Lockheed to Sell Iris Technology

Lockheed Martin has signed a worldwide value added reseller agreement with Iridian Technologies to immediately market and sell iris recognition technology-based products from Iridian.

Bruce Cox, Lockheed's Director of Business Development, says: "Biometrics will play an increasingly important role in both physical and cyber security solutions worldwide."

For more information visit ...



Identix

www.identix.com

Visionics

www.visionics.com

Precise Biometrics AB

www.precisebiometrics.com

SchlumbergerSema

www.slb.com

Lockheed Martin

www.lockheedmartin.com



Cubic Awarded \$84m Transit Contract

Los Angeles' County Metropolitan Transportation Authority (MTA) has awarded a \$84 million contract to Cubic Transportation System to deliver California's largest contactless Smart Card ticketing system for transit.

The contract calls for Cubic to use Smart Card technology to link all public transit in Los Angeles to one Smart ticket for bus, light rail and subway. The new ticketing system is scheduled for completion in 2004.

PCL Contract in South Wales

Prepayment Card Limited (PCL) has been awarded a contract to supply and manage a Smart Card scheme for concessionary travel and multi-modal transport ticketing in South West Wales. Initially 70,000 Smart Cards will be issued and this could be expanded to the eligible area population of 160,000.

The contract, with funding from the Welsh Assembly Government, was awarded by Neath Port Talbot County Borough Council, on behalf of the South West Wales Integrated Transport Consortium - SWITCH.

As part of a five-year contract, PCL will provide on-bus card readers and a managed service, including card procurement, card encoding and fulfilment, card and card holder management, transaction processing, concessionary fare reimbursement to bus operators, provision of a telephone help line and management information.

New Jersey Police Adopt Smart Cards

East Orange Police Department in New Jersey is deploying RSA SecurID multi-application Smart Cards to officers in the field to authenticate their identity before accessing the Federal Bureau of Investigation's National Crime Information Center (NCIC) criminal database from a Mobile Data Terminal in their squad cars.

A detective investigating a burglary, for example, could take a fingerprint sample from the crime scene, log into the Mobile Data Terminal in his/her car with a Smart Card and send the sample and match it to a fingerprint in the NCIC database, verifying the identity of the thief while in the field.

To protect the privacy of sensitive information at

rest and in transit on computer systems both inside the headquarters and on the road in squad cars, the Police Department will be utilising RSA ACE/Server software with RSA SecurID 3100 multi-application Smart Cards and key fob tokens, and RSA Keon Desktop digital certificate management software.

Smart Money at World Cup

The Japanese government will issue 5,000 Smart Cards during the Japan/South Korea 2002 World Cup finals in the summer for shopping and public transport. The project will be conducted in co-operation with World Cup sponsor MasterCard.

The cards will be available for purchase by ticket holders and will be programmed with up to 3,000 yen (US \$22.6) for use at official World Cup outlets, public transport in Sapporo in northern Japan, and at selected shops in Japan and Korea.

More Readers for DoD

SCM Microsystems has shipped a further 85,000 Smart Card readers to the US Army as part of the Department of Defense's (DoD) Common Access Card (CAC) program. The deal follows an initial shipment last November of 50,000 readers.

M will provide a variety of serial port, USB and PCMCIA readers for the program through its partner Northrop Grumman.

Smart Money Card for Teenage Market

MasterCard, First e-Bank and Smart Communications in collaboration with MTV Asia, are to launch a Smart Money card aimed at the teenage market in the Philippines. They say that the card is the world's first pre-paid cash card linked to a mobile phone.

For more information visit ...



Los Angeles MTA

www.mta.net

Cubic Corporation

www.cubic.com

RSA Security Inc

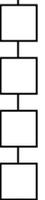
www.rsasecurity.com

Prepayment Cards Limited

www.prepaymentcards.com

MTV Asia

www.mtvasia.com





Nationwide Mobile Banking

Nationwide Building Society in the UK, which claims to have received over one million registrations for its online Internet banking service, has selected Dialogue Communications to deliver SMS to configure the settings for Nationwide's WAP banking members.

The Dialogue solution is being initially used to configure WAP banking access settings for Nationwide member's WAP mobile phones. Over the air configuration of phones offers members the convenience of receiving pre-configured mobile banking access settings, which can be saved by a click of a button and enables secure access avoiding the complexity of manually entering a long string of technical instructions on a mobile phone.

Gemplus Plant Closure Expected ...

French Smart Card manufacturer Gemplus is said to have offered its works council a redundancy plan estimated to be worth €67 million according to French daily newspaper Le Figaro. The deal allegedly includes plans to shut down Gemplus' Sarcelles plant in the Val d'Oise region as the company's cost-cutting program continues.

CGT union delegate Rene Chambron told Le Figaro: "These measures should generate €60 million worth of savings over the next 12 months for a redundancy plan which will cost the company more or less the same price."

... EAL5+ for GemXplore 'Xpresso

Gemplus has also announced that its 64K Java Card-based GemXplore 'Xpresso has been certified Evaluation Assurance Level (EAL)5+ by the Common Criteria security standards body.

Keycorp Order from Taiwan

Keycorp has received further orders for MULTOS-based Smart Cards from Taiwan's CosmosBank. Including the initial order in May last year, the company will have delivered more than half a million cards to the bank by April 2002. Applications on the card include a credit application. Features such as loyalty programs and e-ticketing can be loaded in the future.

Keycorp CEO Bruce Thompson said the deal "underscores the shift that is occurring in the card market from magnetic stripe to Smart Cards - especially in

Asia and other areas with a high risk of credit card fraud."

VACS for Rockies National Park

A \$90,000 contract to install a Vehicle Access Control System (VACS) at Rocky Mountain National Park in Colorado, has been awarded by the Federal Highway Administration to Leapfrog Smart Products.

Leapfrog will deliver 45,000 Rocky Mountain National Park pass cards annually. The system will allow the park to expedite the movement of pass holders through a gated lane.

ORGA/PPP US Alliance

ORGA Card Systems and Perfect Plastic Printing (PPP) Corporation have finalised an alliance in the US to manufacture Smart Cards, including chip insertion and pre-personalisation services at PPP's St. Charles, Illinois, facility to serve what it describes as the "growing need" for secure chip-based card products in the US.

Ingenico Contract in Canada

Ingenico Corp has signed its largest ever, single contract in Canada with Imperial Oil Limited to provide a turnkey POS solution for select IOL locations. The five-year multi-million dollar contract includes the deployment and support of Ingenico Canada's newest touch screen transaction terminal, the e-Touch 3000 and e-Crypt 1200 Smart Card-enabled PIN Pads.

For more information visit ...



Nationwide Building Society

www.nationwide.co.uk

Dialogue Communications

www.dialogue.co.uk

ORGA Card Systems

www.orga.com

Perfect Plastic Printing

www.perfectplastic.com

Keycorp

www.keycorp.net

Leapfrog Smart Products

www.leapfrog-smart.com

Ingenico Corp

www.ingenico-us.com

Gemplus

www.gemplus.com





Datacard's ChipNet in Americas



Datacard has formed an alliance with Infineer to market and distribute Infineer's Smart Card solutions in North and South America and Mexico. Infineer specialises in Smart Card solutions for the education sector and Datacard claim the deal will mark the first time the system has been made available in the Americas.

The Infineer solution is based on its 'ChipNet' multi-application Smart Card system, which allows users to prepay for a range of services including networked printing and photocopying. ChipNet has already achieved significant success in the UK with installations in over 100 school and corporate sites.

3G SIM Card from Setec

Setec says that its eSIM 3G Smart Card for third generation mobile networks will be available in Q3 with 64K bytes of EEPROM. The card is said to be ideal to help migration from 2G to 3G services.

The card offers an open application toolkit platform to develop new applications and services and cryptographic capabilities for user authentication based on PKI (Public Key Infrastructure) technology.

Gemplus/Philips 3G Platform

Gemplus and Philips Semiconductors have agreed to integrate Philips' HiPerSmart product family into the latest range of Gemplus' 32-bit Smart Cards.

The new 32-bit HiPerSmart computing platform is aimed at providing a 3G architecture that will support the development of the Universal IC Card (UICC) and the Universal Secure Identification Module (USIM). Manufactured on 0.18 µm CMOS, HiPerSmart will be available at the end of 2002.

Jean-Luc Ledys, Director of Silicon Technologies at

Gemplus, said that the company would push this architecture to become a de facto standard for high-end PKI and non-PKI multi-application cards.

GSM Service for Brazil

SchlumbergerSema is to supply the Smart Card SIM (Subscriber Identity Module) cards for the launch of TIM's new GSM services in Brazil. It is anticipated that the GSM service will attract around five million new subscribers by the end of 2003.

SIMphonIC for WIND

Oberthur is to integrate its SIMphonIC Application Loader and Manager (ALM) platform into Italian operator WIND's mobile network which has 7.9 million subscribers.

The solution will allow WIND to offer its subscribers the full management of their SIM cards via a card reader at point-of-sale or over-the-air.

Netsmart/Govconnect Team

Netsmart Technologies and Govconnect have teamed to market Netsmart's Smart Card with Govconnect's integrated platform, AccessNet which is designed to enable government agencies to deliver electronic solutions to their constituents using the Internet, touch-tone telephones, advanced e-mail and automated fax integration.

Short Range MIFARE Chip

Infineon Technologies has launched MIFARE Touch a new member of its contactless memory portfolio for chip card applications at the IC Card 2002 show in Tokyo, Japan. MIFARE Touch, is targeted at applications where contactless operation of the cards in short distances from the terminal is sufficient, such as slot-operated gaming machines, access control, replacement of keys for buildings and hotel rooms and loyalty systems.

For more information visit ...



Setec

www.setec.fi

Philips Semiconductors

www.semiconductors.philips.com

SchlumbergerSema

www.slb.com





3GSM: What a Difference a Year Makes

The 7th Annual 3GSM World Congress. Cannes, France, 19th-22nd February 2002

A year ago in Cannes the movers and shakers in the telecoms world descended on Cannes for a jubilant celebration of the industry's astonishing success. It appeared that even the smallest player could afford the luxury of hiring out its own private yacht and filling delegates glasses until the early hours.



This time around, however, the atmosphere at Cannes was of a distinctly more sober nature. In the preceding 12 months the industry suffered its very own annus horribilus as faltering market performances and failed technology led to a wave of redundancies, plant closures and a general feeling of doom and gloom across the industry.

Alongside the underwhelming reception to WAP, the greatest culprit was the non-arrival of 3G which, by some estimates, is now over a year behind schedule and has still yet to arrive on the high street. ORGA's UK MD Graham Carson noted that although it was unforeseeable that so many key SIM card markets would reach saturation point at the same time (which occurred in 2001) the 3G delay was also a crucial factor.

Carson said: "Mobile is a semi-cyclical type of business. You have a huge surge in demand that drops off once saturation has been reached. However you usually see several of these curves happening at once being driven by new technology. People were expecting the first 3G pilots to be implemented last year and that didn't happen. This meant that there was a gap between hitting the GSM saturation point and the start of the 3G rise."

Despite these delays, 3G remained the key focus

point at Cannes. Much was made of Nokia and Microsoft's decision to release details of their competing 3G platform architectures on the very same day, which was heralded in the press as the battle which would ultimately shape 3G's software development future. Nokia's offering – which linked its Series 60 platform to a Symbian operating system, appeared to be closer to market but it took a brave soul to bet against the Microsoft/Intel alliance emulating the Wintel PC success story.

As for the 3G handsets themselves, both market leader Nokia and its closest rival Motorola announced that the first phones are scheduled to be delivered by the third quarter. However, the new Sony Ericsson partnership, which has also committed to rolling out 3G phones before the end of the year, may prove to be a influential new player in the sector. Reports that the company is in talks with Sony's market-leading PlayStation games console division to deliver arcade style gaming features on the handset will no doubt send shivers down the spine of its rivals who are all too aware of the power of the fashionable gimmick in the handset market.

With the Smart Card sector now so inexplicably linked to the wireless world, all the major Smart Card players were active at Cannes. Oberthur unveiled a host of new products including the 'SIMphonIC' 3G Composer, a software tool aimed at developing Java SIM cards and handsets applications, whilst ORGA launched its 'Euroclick' SIM-based GSM JavaCard application that allows subscribers to convert local currency into Euros.

According to Carson, if a Smart Card company "hasn't been a player in the mobile industry then it hasn't been a player", and this means sharing the bad times as well as the good. With the industry having learnt some tough economic lessons over the past year it can now look forward to the future with its feet firmly on the ground. Lets hope the champagne will be flowing again this time next year.

Matt Ablott

For a round-up of the GSM Association Award winners, which are given out at 3GSM every year, please visit: www.smartcardgroup.com/dailynews/news-extra.html





ARM: Core Business



Dominique Lutz

***Smart Cards Now* talks to ARM Marketing Manager Dominique Lutz about the launch of the company's new SC100 SecurCore technology.**

Developed in collaboration with Atmel, ARM's SecurCore family built on its SC100 core has evolved from the company's ARM7 family which is currently licensed for use by Atmel, Samsung, ST Microelectronics and Philips. The 32-bit RISC technology, aimed at enabling Smart Card and secure IC development, is scheduled for its first implementations by the end of the year.

According to Dominique Lutz the new core will boast a range of new security features: "We have implemented underlying security features in the architecture. On top of that we allow our license to modify the core in order to integrate their own security features."

The new features include a new memory protection unit (MPU) tuned towards Smart Card requirements, DPA protection and an ARM instruction set allowing silicon vendors to extend the ARM architecture with its own instruction set. Lutz also claimed that the testing process had been revised to ensure that not even the silicon vendors could reconfigure the core once they had switched from test mode.

Despite the encouraging early support from Atmel and Samsung, ARM took a fierce blow when Smart Card market leader Gemplus announced it was to go with the rival MIPS core. Lutz admits this was "painful" news to receive but claims that the Gemplus/MIPS strength could also be its weakness. "The approach Gemplus used is proven to be an obstacle to work with Gemplus competition," said Lutz. "There is lots of Gemplus IP in the Smart MIPS core. Schlumberger and Oberthur don't want to use a core where there is Gemplus IPR. The strength of collaboration between Gemplus and MIPS seems to turn into a weakness when addressing all the Smart Card vendors."

"What we are proposing is a very much more open solution. Where we increased the security of our core, we can license silicon vendors or even card manufacturers if these people want to develop their own chips. Its much more open than a close collaboration where you don't know who owns the IP," Lutz continued.

There has also been concerns over rumours originating from the Atmel camp that the die size for the SC100 was too large for commercial use. This is flatly denied by Lutz: "The SC100 is definitely not bigger [than the ARM7 core]. If this is an issue, the problem is with the implementation process rather than the die size. We are very careful about die size - we want to accelerate 32bit but we still want to compete with 8bit and 16bit chips."

Looking to the future, ARM is lining up the SC110 for launch in the third quarter which will integrate a Montgomery cryptographic co-processor - something which is currently an option on the SC100. Indeed, there are questions as to whether a RISC core needs a co-processor at all: "We still think a co-processor is still needed to work efficiently," said Lutz. "Either our secure core licenses can implement their own cryptographic accelerator or we could provide the core with a cryptographic processor integrated."

Prior to the SC110, however, will be (rather confusingly) the arrival of the SC200 which will integrate Java Card acceleration based on ARM's Jazelle Java technology and marks ARM's increasing interest in the area: "JavaCard is very important for us," said Lutz. "We want to beat the competition on this and our JavaCard development should lead to our inclusion in the JavaCard forum." According to Lutz, the SC200 will see a "five times improvement factor" over its predecessor.

Dominique Lutz was talking to Dr. David Everett, Technical Advisor, Smart Card Group





Welcome and Cyberpro Merger

Welcome Real-time, headquartered in France, has announced an agreement to merge with Canada-based Cyberpro Technologies. Terms of the deal were not disclosed.

Cyberpro, a provider of Smart Card-based marketing applications in North America, has over 60 different programs running in the US and Canada, while Welcome specialises in loyalty schemes.

SCM to Acquire Towitoko ...

SCM Microsystems is to acquire Munich-based Smart Card security company Towitoko for \$5 million. The deal is expected to be completed during the second quarter 2002 and SCM claim the acquisition will result in additional revenues of \$5 million and operating income of \$500,000 for the current fiscal year.

Towitoko primarily focuses in the German banking market with major customers including Deutsche Bank and Dresdner Bank. SCM hope the acquisition will increase its market penetration in the country.

“The acquisition of Towitoko will extend SCM's market share and technology leadership within the Smart Card-based PC Security sector,” said SCM CEO Robert Schneider. “The combination of its application software and our strong reader platform, which is designed to be compliant with all emerging standards for the use of Smart Cards, further strengthens our product offerings.”

... and Announce 2001 Results

SCM Microsystems has also announced that revenues for the full year increased by 17% to \$184.9m compared to 2000 but fourth quarter revenues dropped 11% to \$46.8m compared to the same quarter in 2000.

Philips' 80% Growth in Chip ICs

Philips Semiconductors announced an 80% increase in sales in the chip card IC market during 2001 in spite of the general economic downturn.

Last year, Philips shipped its 200 millionth MIFARE chip card IC. This, combined with nearly ten million MIFARE dual interface Smart Cards controller ICs and more than one million contactless MIFARE reader ICs currently in use worldwide, reinforced the company's position as the leading provider of chips for contactless applications.

Datakey Achieves Q4 Profitability

Datakey reported revenue from continuing operations for the fourth quarter of 2001 was \$2,749,000, up 101% from \$1,368,000, for the same period a year previously.

Fourth quarter net profit was \$88,000, compared to a net loss of \$538,000 in the year-earlier period.

Annual revenue increased by 117% to \$7,815,000 from \$3,608,000 in 2000. Net loss was \$2,006,000 compared to \$2,953,000 in 2000.

ERG Warns of Losses

Australian Smart Card specialist ERG has issued a profit warning predicting losses of up to Aus\$195 million for the half-year to December 2001.

The company said that the losses will include asset write-downs of Aus\$140 million to Aus\$160 million followed a review of its investments in unlisted subsidiaries that had taken up licences to ERG's technology.

Alliance Chief Goes it Alone

Donna Farmer, President and CEO of the US Smart Card Alliance, is leaving to form her own company focussing on the secure ID and authentication fields. She will continue her involvement with the Alliance as a Special Advisor to the Board.

Ms Farmer has held her position with the association since 1998, serving first as President and CEO of the Smart Card Forum and then of the Alliance when it merged with the Smart Card Industry Association in December 2000.

First Data Hires Dutray

First Data Corp has hired ex-Motorola and Visa Smart Card specialist Francois Dutray as Senior Vice President for its global Smart Cards division.

For more information visit ...



Welcome Real-time

www.welcome-rt.com

SCM Microsystems

www.scmmicro.com

Philips Semiconductors

www.semiconductors.philips.com

Smart Card Alliance

www.smartcardalliance.org



ACG & It's Band of Merry Men

Smart Cards Now talks to ACG board member Olaf Jacobi



Olaf Jacobi

When ACG was formed from the ashes of Sebecco in 1995 then, as now, the Smart Card market was dominated by Gemplus, Schlumberger, ORGA, Giesecke & Devrient and Oberthur. At the time the 'Big Five' controlled 80% of the nascent market. Today that dominance has slipped to around 60% and ACG's Olaf Jacobi is keen to attribute much of this shift to the success of his company's championing of the industry little guy.

"Back then the smaller system integrators and card issuers were not able to compete with the Big Five because they were not able to get the right silicon at a competitive price level," Jacobi says. "This was the day when ACG's first real business case was generated."

The plan was to combine power purchasing power and demand with the independent sector of the Smart Card market to allow the smaller players to get the right products and prices – at the expense of the Big Five. "We are grabbing market from the rich ones and giving it to the small ones," says Jacobi. Inevitably, ACG's almost exclusive status as a Smart Card broker has led many to label them as the industry's very own Robin Hood.

However, Jacobi is quick to point out that the ACG business model is about more than just levelling the playing field: "The value chain needs to be open otherwise the market won't grow," he says. "There are 200-300 card manufacturers worldwide and 1000-2000 system integrators. They both need to find each other to compete [with the Big Five]."

Perhaps the greatest industry-wide criticism of the Big Five has been its insistence on proprietary software and despite technology such as Java currently enjoying considerable support, industry platform standardisation still seems a long way off. Jacobi continues: "The operating systems are still held by the card manufacturers and the market won't grow using proprietary systems. We are helping to separate the value chain and support non-proprietary software."

In reality, of course, the current diminishing market share of Gemplus, Oberthur et al has more to do with the dramatic market fallout of 2001 than ACG's Robin Hood exploits. According to Jacobi, the downturn may lead to some fundamental changes in the activities of the big players. "These companies are like Daimler Chrysler," he says. "They are trying to do everything – manufacturing, integration, sales - and this is just not profitable. They have to decide whether to be a card manufacturer, software/IP supplier or systems integrator and I think most are still in the process of deciding"

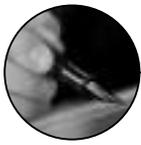
But whilst those at the top have been attempted to balance shrinking revenues with a wave of redundancies and plant closures Jacobi claims that ACG's roster of smaller players are on their way up: "What we are recognising in the market is that the likes of Gemplus and ORGA are closing down manufacturing facilities whilst our partners such as PPC in Germany are growing; and remember that our customers are their [the Big Five's] competitors."

As for ACG itself, the company managed to escape the 2001 meltdown relatively unscathed despite the fact that the company's growth rate of 30% last year was significantly below original expectations. Ironically, since its IPO in 1999 ACG has embarked on an ruthless M&A strategy that has seen the company take control of such illustrious industry names as Bluefish, Ominkey, NedCard and AEG.

Coupled with the lack of notable competition in the Smart Card brokerage market, it is conceivable that the Big Five may soon become the Big Six, although what this will mean for ACG's Robin Hood aspirations is anyone's guess.

Matt Ablott





Traditional Smart Cards vs USB Token Smart Cards

by Leedor Agam, Vice President of eBusiness and eToken Solutions, Aladdin Knowledge Systems

The use of credit-card size Smart Cards has successfully been adopted by a number of European companies, with a particularly high level of acceptance in Germany and France. However, high hardware deployment costs and the lack of application standards associated with Smart Cards have proved to be significant barriers to their widespread use, especially in the US. Therefore, their newly developed USB (Universal Serial Bus)-based counterparts (referred to as USB tokens) are becoming a more appealing, more versatile option for both American and European companies looking to secure their digital assets. With strong user authentication based on similar Smart Card chip technology, USB tokens are not only more sleek, fun and convenient, but most importantly, more cost-effective than their budget-busting predecessor.

The strikingly obvious advantage to using USB tokens lies within its unique portability. Reader infrastructure exists in more than 90 percent of modern stations one would ever have to "plug it in to." Virtually all PCs produced today have at least one USB port, whilst most PCs do not have a traditional Smart Card reader. In the past, the lack of Smart Card use could easily be attributed to the high cost of installing traditional Smart Card readers on PCs. Corporations' unwillingness to even use or purchase extra card-reading devices contributed to the extremely low usage rate in the United States, as well as the extremely low popularity of the Smart Card format.

However, with the recent introduction of lower-cost readers, cost no longer poses such a significant barrier. So how do we explain the fact that traditional Smart Cards and readers are not present in all PCs? The answer is simple: service providers do not want to be responsible for the continual maintenance of these extra devices on PCs. The overwhelming issues related to logistics, customer support and the threat of PC problems and software complaints now prohibit the mass deployment of readers, and thus any widespread use of traditional Smart Cards.

Although USB tokens eliminate reader technology concerns and offer superior implementation requirements, the security offered in credit-card sized Smart Cards and USB tokens is quite similar. Both can perform RSA operations, authenticate and encrypt, offering very high levels of security. The Smart Card's high security capabilities are anchored in its ability to perform sensitive operations inside the chip itself, thus providing a fully independent, secure environment. This is true in both the traditional Smart Cards and USB tokens. Functionality and security levels are virtually identical in both forms, leaving the USB infrastructure as an overwhelmingly significant advantage for tokens. Wherever a USB port exists, tokens can be quickly implemented. And tokens can be easily set up to supply secure log on, web access control for specific sites, as well as signing and encryption of email.

The evolution of USB token Smart Cards has been rapid over the last few years, beginning in late 1998 with the introduction of tokens that used, at best, secured EEPROM protected memory, technology that, at the time offered a less robust alternative to traditional Smart Cards. These tokens utilized a range of onboard crypto processors, mainly symmetric or hashing capable. Slightly more advanced tokens were then introduced that used onboard DESX (120 bit) symmetric encryption, similar in its key length to the encryption offered on Smart Card based technology. But despite this strong move forward, the keys did not offer any RSA capable chips, and therefore still required digital certificates and other vital information to be generated on the PC and then eventually transferred to the token. However, today's advanced USB tokens now provide on-board PKI key generation similar to traditional Smart Cards providing equivalent security levels. But despite their identical high levels of security, USB tokens offer clear advantages not possible through traditional Smart Card use.

Deployment

As stated previously, traditional Smart Card implementations require external readers to be installed on each user's machine. For a company with just 1,000 employees, the initial reader hardware cost alone can be extremely high, not including maintenance and imple-



Events Diary		14 - 16	Mobile-Health Europe, MECC, Maastricht, the Netherlands
April			
9 - 11	Voice World Europe Conference & Exhibition Olympia Conference Centre, London, UK Web: www.voice-world.com/Voice2002EU		Paul Brown, Director Centre for the Advancement of Electronic Health Records Ltd (CAEHR) East Wing, Mathern House Mathern Chepstow Monmouthshire NP16 6JA UK Email: ConferenceDesk@cs.com Web: www.e-health-europe.com
10 - 11	5th. Annual Digital Money Forum, The Crowne Plaza Hotel, St. James' 45 Buckingham Gate, Westminster, London SW1E 6AS, UK Hosted by Consult Hyperion and sponsored by RSA Security and Datacard. Cost £595 per person. Sarah Meikle Tel: +44 (0) 20 7388 9988 Email: meikle@spreckley.co.uk Web: www.consult.hyperion.co.uk	16	Cards Asia, Singapore
		16 - 18	Information Security World Asia 2002, Singapore International Convention & Exhibition Centre



mentation time. The difficulties associated with the installation, management and actual deployment of Smart Card readers have given these readers a reputation for being repeatedly problematic. This significant, decade-long concern is addressed by the USB token's ability to authenticate users while using standard PC connectivity. No external readers are needed, and instead, the USB ports now available on virtually all PCs provide welcome relief to the headaches and hefty price that come with traditional Smart Cards.

The ability to use USB connectivity is especially significant for large-scale distribution of tokens, such as sizable e-commerce applications. By deploying reader-less Smart Card technology, organizations can minimize cost, while providing simpler implementation and fewer headaches. Customers and users more readily accept USB tokens primarily because they utilize the USB port infrastructure already available - something not possible for traditional Smart Card readers.

Portability

Although traditional Smart Cards fit nicely inside a wallet and are similar in look and feel to the typical credit card, USB tokens offer the convenience of being stored on a user's key chain. Significantly reducing the chance of losing or misplacing the token, this added benefit helps users easily integrate the token into their everyday routine. Users simply plug in the token when they enter their office or workstation and unplug when they leave.

Not only is physical portability important, but application portability is also a necessity. For both forms of Smart Cards, flexibility is provided through out-of-box plug-and-play connectivity to multiple business applications, including CAPI and PKCS#11. In addition, Smart Cards integrate with a wide variety of network security clients and PKI solutions offering numerous options for organizations. Due to their two-factor authentication process, even if a user needs several user accounts and certificates, all the user must remember is the password. USB tokens with powerful two-factor authentication offer true peace of mind as well as ease of use - a combination well respected among companies of all sizes.

Durability

Another significant logistics-related concern is the proven life span of the hardware. Chips inside both USB tokens and traditional Smart Cards cannot be physically tampered, and if they are altered in some way, the chips are designed to automatically destroy themselves. This is an added benefit provided by the chipmakers and has become an industry standard. But true durability assessments must also include readers. Manufacturers of traditional Smart Card readers do not guarantee enough insertions to meet typical usage, while USB hub and motherboard manufacturers meet or exceed normal usage standards. Readers, replacement readers, parts and the maintenance personnel, especially in sizable deployments, not only create long-lasting expenses, but also an added level of inconvenience that cast doubt on traditional Smart Card durability. Fewer parts, more durable usage criteria and simpler maintenance easily give USB tokens equal or great levels of durability.

Flexibility

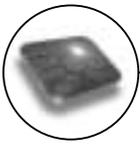
USB tokens, as well as traditional Smart Cards, give the appearance of offering similar application flexibility. Both utilize either a port or hub on a PC and some readers have more than one slot. Two significant drawbacks, however, remain with traditional Smart Cards. Most standard card readers have a maximum of two slots, while the reader itself is connected to an existing port on the PC, thus creating a potential pile up on the serial or parallel ports.

By contrast, PCs now have defined a maximum of 127 USB devices per machine, far outnumbering the traditional Smart Card reader capacity and opening great potential for USB technology. Combined with the USB token's ability to store multiple digital certificates and credentials, the PCs capacity for 127 USB devices offers far greater flexibility than the traditional Smart Card.

Though USB tokens are still an emerging standard in the authentication market, their many advantages are quickly gaining widespread acceptance in the US and Western Europe. When compared to traditional Smart Cards, as well as biometric devices and one-time passwords, USB tokens offer unmatched levels of security, while also providing much-needed portability, ease of deployment, PKI support, multiple application support and durability.

<p>Stella Tan Terrapin Email: stella.tan@terrapin.com Web: www.isec-worldwide.com/isec_asia2002</p>	<p>23 - 25 Smart Solv Expo, Olympia, London, UK Reed exhibitions</p>
<p>22 - 25 CardTechSecurTech, New Orleans, USA Karen Pedlow Tel: +1 212.803.8777 Tel: +1-800-442-CTST Email: Karen.Pedlow@tfn.com Web: www.ct-ctst.com/ctst2002</p>	<p>24 - 25 SIM 2002 - The Annual Meeting Place of the SIM Community, Amsterdam Marriot, Amsterdam, Netherlands Steve M. Cassidy IBC Global Conferences Mortimer House 37-41 Mortimer Street London W1T 3JH United Kingdom Tel: +44 (020) 7-453 x5926 Email: stephen.cassidy@informa.com Web: www.ibctelecoms.com/sim/?src=simsmartcardnews</p>
<p>23 - 25 The Advanced Card Awards, Olympia, London, UK Jane Callaghan Tel: +44 (0) 1733 245841 Email: awards@multimediaventures.com Web: www.advancedcardawards.com</p>	





Michio Kaku, the Henry Semat Professor of Physics at City University New York, talked about his vision of e-security in the year 2020. This is a world infested with nanobots, where silicon has reached its limits and Moore's law no longer applies. Quantum computing is around the corner and DNA based biometrics the norm.

There were 16 tracks of variable content, featuring over 200 sessions. The meatier talks could be found in the Cryptographers track but the popular sessions are still to be found in "Hackers and Threats" or others of that ilk. To simplify the choice for those wishing to remain in their 'comfort zone' the conference guide provides a score indicating the technical level of each track session. And you could download the conference program onto your PDA courtesy of COMPAQ. But the reality is that there are so many parallel tracks that the choice is overwhelming and it is impossible to attend every session you may be interested in.

Talks given by speakers such as Bruce Schneier, Paul Kocher and Ron Rivest were inevitably well attended and with good reason. Bruce Schneier gave a talk entitled "Fixing Network Security by Hacking the Business Climate." His talk was about security from a business perspective. According to Schneier liability is the driver for standardisation of the risk and security assessment of products in the market place. Paul Kocher's presentation, "Hacking Cryptosystems" described practical attack scenarios on Cryptosystems with the intention of helping designers produce better products. In "Micropayments revisited", Ron Rivest described a probabilistic deposit protocol for combining a number of micropayments into a single one to reduce the bank processing.

Then, on to the exhibition floor. Here, you are assailed by product after product with subtleties so subtle that informed choice can be a bewildering prospect. There were over 150 exhibitors offering their own particular flavour of security. Firewalls, smart tokens, smartcards, VPNs, biometrics, anti-virus software to name but a few, were all represented here. Not just products were visible. There were a number of booths featuring consultancies such as @Stake, Foundstone, KPMG and PricewaterhouseCoopers. Even the NSA had a stand with an Enigma machine as a 'touch and feel' offering.

The extra-curricular activities did not disappoint. The rock band "Cheap Trick" woke the conference with a version of "Surrender". If you were one of the first 200 registrants to the conference you could see a preview showing of the film "Enigma" introduced by Bletchley Park Trust Director Christine Park. The Annual Cryptographer's Gala was held at the San Jose Museum of Art.

However, the conference was buzzing with rumours of a breakthrough by a mathematician called Dan Bernstein. He had recently published a proposal, "Circuits For Integer Factorization," describing a new paradigm for factorising with the Number Field Sieve (NFS) and touting for \$67,000 from the National Science Foundation to investigate its viability. If viable, the approach could have meant, for example, a tripling in size of RSA keys although there was some uncertainty about its practicality at shorter (1536 bits) key length. At present there seems to be a consensus in the Crypto community that the ensuing panic was unnecessary.

The conference closed with John Cleese talking on the "Importance of Mistakes".

Note:

The opinions expressed herein are purely those of the author and not any other individual or organisation.

Q: How do Smart Cards fit into a information system?

A: Smart Cards should be used when you need a portable, secure store or processor of data. For business, Smart Cards are used for access control (both physical and logical) and for payments. Consumers get the benefits of such an application. Governments are beginning to use Smart Cards for documents such as passports and driving licences.

Q How fast can a card transfer data/Kbps

A The communication protocols are defined by ISO 7816 -3. For start up the default clock speed tends to be 3.58MHZ and with the default divider of 372 gives 9600 ETU (elementary time units). However this can be

changed and signalled in the ATR (answer to reset) to a theoretical limit of say 312,500 ETU with a 10MHZ clock and a divider of 32. In practice you will never meet such high speeds and 111.6Kbits is the maximum you will normally meet. Comms rates of 9600 and 19.2K are the most common.

Q: Can a PIN code on a chipcard be read by a criminal who has stolen the card and has a card reader such as the UNIPROG.

A: As long as the Smart Card software is constructed correctly it would not be possible to read the PIN from the card - there would not normally be any reason for the card to have a function that outputs the PIN.





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 43). Here's a selection of the headlines we covered in February:

Corporate

- ActivCard to Host Q4 Webcast
- Oberthur meet 2001 Target; New Alliances Announced
- ActivCard Reports Q4 and Fiscal 2001 Results
- Gemplus Results Mark Further Cutbacks
- Lifestream Predict 164% Increase for 2002
- ST To Sell Off PC Graphics Business
- ORGA Offloads Smart Card Interfaces Business
- Philips Sales Rise 80% in 2001
- G&D and UltraCard To Sign Strategic Agreement
- Hypercom Post Mixed 2001 Results
- ST Form Wireless Infrastructure Division
- Gemplus Offers Redundancy Plan: Plant Closure Expected
- Gemplus JavaCard First to Latest Certification
- New First Data VP To Push US Smart Cards
- Identix and Visionics Merge in \$600m Deal
- ABN Amro Give Away Phones to New Smart Card Applicants
- Qualcomm Sees First Signs of Chip Resurgence
- SSP Selected As KMI Supplier to DoD
- VeriSign Adopt New EMEA HQ
- SCM Announce 2001 Results and New Business Areas
- ORGA And PPP in US Alliance

Government

- Plans For UK Smart ID Card Underway
- Thales To Deliver Smart ID Card in China
- Kyberpass Support National PKI in Canada
- Philippine Pension Fund to Use Smart ID Cards
- Netsmart Alliance to Push US Government Smart Cards
- Thailand Approves Smart ID Card Proposal
- UK Smart Passport Scheduled For 2006
- PCCW Group Wins Hong Kong ID Card Contract

Banking

- State Bank of Mauritius Selects Compaq EMV Solution
- First Data Unveil e-Statement Solution
- UK Banks to Fight Fraud with PIN Chip Cards
- CosmosBank extends Smart Card Order
- Arcot and PEMCO Launch Visa Solution
- "Off-the-Shelf" EMV Solution to Target Smaller Banks
- Austrian ATMs Secure EMV Compliance
- Smart Strikes New ATM Deal Despite Uncertainty

- ACI and G&D To Assist Smart Card Migration
- Gemplus Launch EMV Migration Suite
- Acer Selects Cards etc. Smart Card Suite

Healthcare

- National Healthcare to Acquire Healthcare Smart Card
- Med+Link Launches Smart Card Healthcare Service
- EU Plans Europe-wide Health Card
- WildCard to Power New Healthcare Card

ID & Authentication

- Datakey and Rainbow win \$2.1M order for Secure e-mail USB Tokens
- Biometric Trial to Speed Passport Control at Heathrow
- Precise Biometrics Win Third Biometric Patent
- G&D and Rainbow To Develop Authentication Tokens
- Leapfrog to Install Access Control System in the Rockies
- Bartox to Bundle Aladdin's eToken with BartoXign
- SchlumbergerSema Integrates Precise Fingerprint ID
- Compaq and Schlumberger Launch Smart Card Security Solution
- ActivCard and VeriSign Target Single ID Platform
- Diversinet Launch Digital Identity Product
- Digital Identity Alliance Adds New Recruits
- Boston Airport in Biometrics Trial
- ESC to Use Datakey Smart Cards in Europe

Transport

- Smart Card Bus Management System in Bangalore
- Business Traveller Smart Card in the Pipeline
- New Alliance to Deliver Auto Industry Biometrics
- Smart Cards To Be Used in UK GPS Transport System

Telecoms

- Motorola Strike \$170m GSM Deal in Indonesia
- Wildcard Launch Wireless POS on Motorola Phones
- Radicchio Push For Global Wireless Framework
- Vodafone Launch Online Phone Payment Service

- GPRS Key to Wireless in 2002, Says Report
- Setec to Launch 3G SIM Card
- Vodafone to Use iPIN for UK Payment Service
- STM And Alcatel Develop New Mobile Chipsets
- Mitsubishi Electric Set to Enter 3G Base Station Market
- "3G Will Struggle To Attract Subscribers", Says Report
- DoCoMo's i-mode Set For "Critical" Euro Launch
- Gemplus and Philips Develop 3G Platform
- 3GSM Award Winners Announced
- Nokia and Microsoft in Wireless Platform Showdown
- GSM Association Enhance 'M-Service' Directives
- WIND Adopt Oberthur SIM Solution
- Gemplus to Launch ARPU Factory

Retail

- Card Merchant Launch Europe's First PDA Pay Terminal
- CyberNet Launches Jade Terminal in Europe
- Hypercom Win MSI Contract
- Barclaycard and Xansa Form Business Venture
- Ingenico Wins 'Biggest Ever' Canadian Contract
- Japanese Card Issuers Co-operate on Smart Cards
- Hypercom Reaches 5m Milestone

Leisure

- Microsoft iTV Kit To Offer Smart Card Support
- Philips Adds DRM Solution for Korean iTV

Misc

- Datacard Unveil New Magna Card Printers
- DoD Win Smart Card Alliance Innovation Award
- Smart Card Usage Rises 45% in North America in 2001
- Disaster Site Personnel to Use G&D Smart Cards
- ORGA Launches Mobile Euro Converter
- Chip Equipment Sales Fell 41% in 2001, Says Report
- Smart Card Alliance CEO Goes it Alone
- SCM Launch Multi Connection Smart Card Reader

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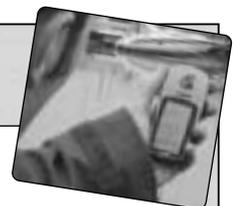
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- Komerčni banka, a.s.
- MUZO, a.s.
- Aon Warranty Group Polska sp.z o.o

and others...

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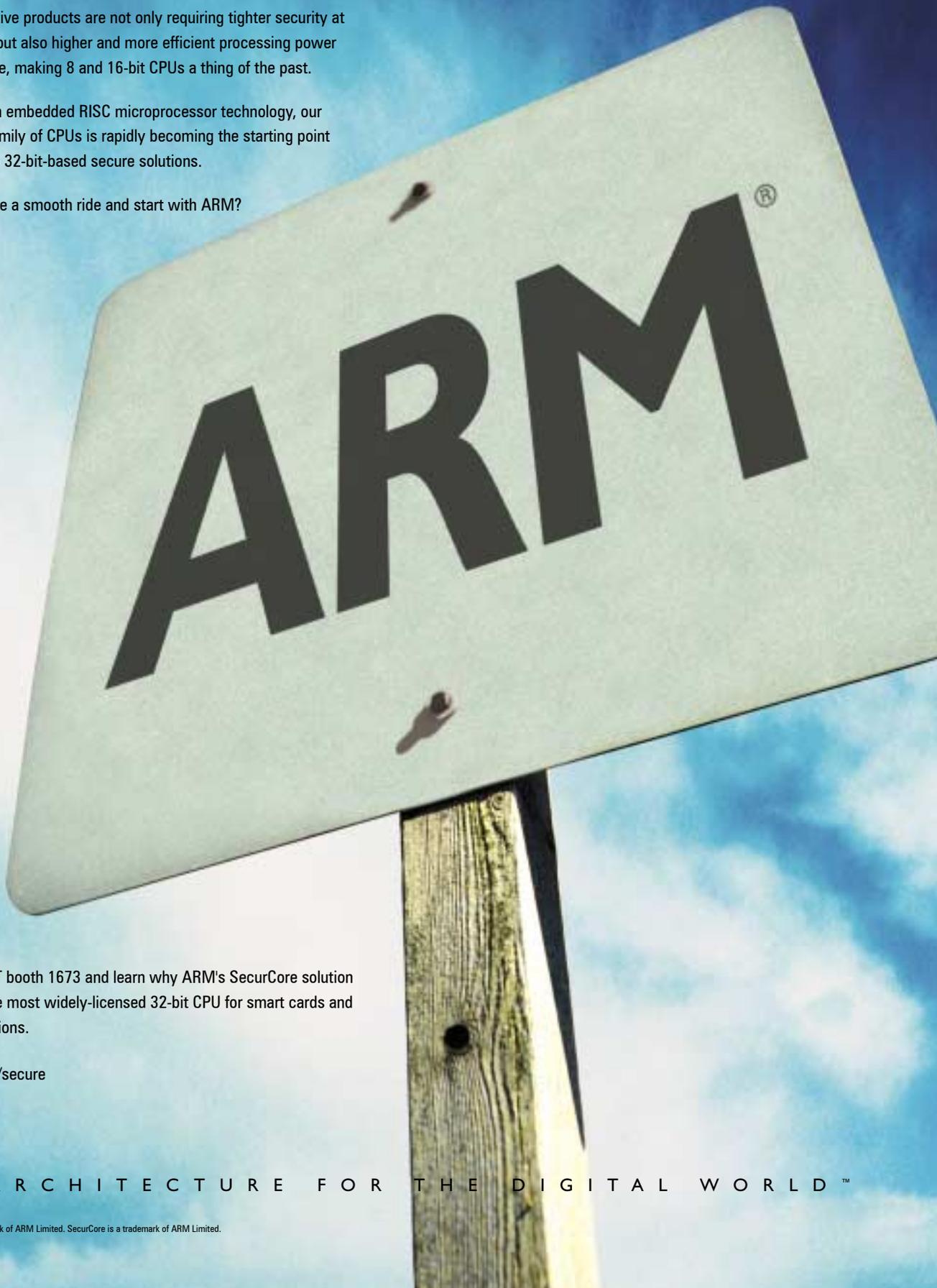
When your roadmap takes you to 32-bit secure technology, here's where to start

What do most leading companies migrating to 32-bit CPUs for their secure solutions have in common? The ARM® architecture.

Today's innovative products are not only requiring tighter security at the core level, but also higher and more efficient processing power than ever before, making 8 and 16-bit CPUs a thing of the past.

As the leader in embedded RISC microprocessor technology, our SecurCore™ family of CPUs is rapidly becoming the starting point for migrating to 32-bit-based secure solutions.

Why not choose a smooth ride and start with ARM?



Visit us at CTST booth 1673 and learn why ARM's SecurCore solution is becoming the most widely-licensed 32-bit CPU for smart cards and secure applications.

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