Who's behind…

...ePassport, enrolment, issuance, border control and more?

Gemalto.

Gemalto is a reliable and trusted partner for all your public sector ID initiatives including ePassports, eVisas and other international and national identification schemes as well as healthcare and social security programs.

We offer a complete range of secure solutions that are tailored to local markets, and we deliver what you want where you want it with the support of a strong network of local partners.

Gemalto relies on 120 years of experience in secure printing, and our unique expertise in digital security means we provide innovative, trusted solutions that you can count on.

Gemalto's ePassport references include the Czech Republic, Estonia, Denmark, France, Latvia, Norway, Poland, Portugal, Russia, Singapore, Slovenia, Sweden and the United States of America.

THE REVIEW

The rise of the e-citizen
Dear Reader,

We formed Gemalto just about one year ago, so this Anniversary edition of our Review has given me the opportunity to look back over twelve remarkable months. And the main thing that strikes me is that our digital security sector is very dynamic and full of potential.

It’s clear that the digital revolution is rapidly transforming our daily lives. The freedom to communicate, buy and travel, anytime and anywhere, has become an integral part of what people want and expect. You only have to look at the numbers to get the scale of it. By the end of 2006 there were 1 billion Internet users, and nearly 3 billion mobile phone subscribers. More than 3 billion banking cards had been sold. And the numbers are growing all the time, giving people everywhere new opportunities.

But it’s also created new issues. The increasing complexity of new devices, interfaces and passwords can be a nuisance and a cost, both to end-users and organizations.

Equally, fears around identity and security, in the form of fraud, intrusion into data systems, phishing, identity theft, and so on, are holding people back from using new online services. What’s at stake is people’s confidence in technology and the way they relate to these rapidly evolving digital interactions. These issues are so significant that they are preventing us from reaping the full benefits of digital technology.

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They demand solutions that make things safe and simple for users, enabling people and organizations to interact effectively and fruitfully. And that’s what we founded Gemalto to provide.

Twelve months later, that vision has produced any number of real examples for the benefit of our customers and their clients. Our secure, personal devices, tokens, documents, smart cards, software and services are being applied to an increasing number of uses by enterprises, governments, telecommunications operators, financial institutions, Internet content providers and others.

This rapid spread of digital technology, and with it all the activities surrounding digital security, is affecting the daily life and work of these organizations and individuals on many levels.

Major companies are growing heavily dependent on large IT systems. Public authorities are turning to digital technology to better serve, inform, involve and protect their citizens. More and more individuals are using digital interactions to participate in an increasingly globalized world economy.

That’s what we’ve tried to examine in this edition of The Review. Of course it’s about the technologies, and the specifics of some of the solutions that are being deployed. But it’s also about the wider social and economic implications of our industry – the direction we’re going, the trends we’re seeing and our collective responsibility in making this new digital world a space of freedom, convenience and simplicity.

The world is going through a digital revolution – and together we’ll make it more safe and simple!

Olivier Piou, Chief Executive Officer
More and more of us are using digital technology. Businesses, governments and individuals are all enjoying the benefits. But there are increasing threats from hackers and fraudsters. So there’s never been a greater need for digital security. Trusted transactions with convenient services. Gemalto asked international consultancy Frost & Sullivan to take stock of digital security and assess the impact it’s having on our daily lives.
In today’s world we are surrounded by digital information ranging from health records and personal data, to media files and work documents. These data hardly ever exist in isolation; they are generally transferred through interactions with other people and devices. Digital interactions exist in almost every aspect of modern life, from the way we act as individuals, communicate and organize our life, to how modern enterprises and governments function. In companies these digital interactions occur primarily on the internal corporate IT systems which were used to boost efficiency and productivity.

**Exclusive study of digital security**

**Internet everywhere**

The Internet has rapidly evolved to become one of the defining technologies of the early 21st century, radically altering ways of working. Its growth is driven by geographic expansion and by alternative modes of access. In particular, mobile devices like PDAs and phones, which will be used by over one billion people to access the Internet in 2007, will contribute to the expansion. Through its offshoot applications such as e-mail and VoIP, it is enabling a vast number of digital interactions.

The average individual now spends more time online than ever before, connected through an array of digital devices. We are now conducting a significant proportion of our everyday transactions through new digital media, like online retail, mobile payments and online tax filing. The convenience made available through digital interactions has been the main driver for their adoption. However, keeping track of multiple IDs and passwords for different devices and services can be a difficulty for individuals, e.g. if a person has to type a PIN to access their devices, which can still compromise security in some cases. As an alternative many end up saving their password and login name on their devices, which can still compromise security in the event of their devices being lost or stolen.

Digital transactions are on the increase

The use of the Internet means that it is possible to work from any location and has enabled work to be shared between employees a long way from each other, making it imperative to have identification and access management for these systems. As a result, the identity and access management market grew by 193% between 2002 and 2006 to $2 billion. The market is forecast to grow by 193% between 2006 and 2012 to reach $4.4 billion.

**Managing identities and access**

For 73% of consumers in the UK, the main criterion when making online purchases is protection of their personal details.

Consumers in the UK are concerned about online security. Up to 2% have stopped using online banking because they are afraid of identity theft and spyware (Apacs 2006). Banks are now facing a challenge to enhance consumer confidence to be able to further increase online banking penetration. Furthermore, confidence in the banks’ online offers is necessary to support the penetration of new routes to market such as mobile banking and contactless payment.

**Uptake by private companies and public sector**

Both private enterprises and public sector organizations are becoming ever more dependent on digital communication and processes in their interactions with customers/users, employees and other organizations. More companies are using the Internet as a channel to market, leading to the rise in e-commerce transactions from $96 billion in 2003 to $246 billion in 2005.

**Convenient and secure physical & logical access**

The rise of the Internet

Increasing Internet penetration will enable individuals and organizations to access, share and deploy digital information and services globally. The rise in mobile Internet access will add to the benefits of using the Internet making digital information available “any time and anywhere”. According to Frost & Sullivan, the number of global Internet users will nearly double from 760m in 2003 to 1.7bn by the end of 2007.

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Excessive study of digital security

Identity threat
With as many organizations involved in these public sector initiatives there is a threat of unauthorized groups or individuals accessing databases and exploiting the sensitive personal information stored for criminal or malicious means.

Creating secure and convenient interactions
The use of username and password combinations alone no longer provides an effective method of identification. Therefore, consumers will need to be presented with alternative methods of authentication and access tools along with secure payment processes that will all maintain current growth trends. This is supported by research conducted by RSA, which suggests that 73% of consumers globally would prefer their banks to deploy new authentication methods such as hardware tokens. Consumers want to be assured that when they log into their account, they are not in fact transferred to the actual site and not a fake one designed to steal their personal information or their credit card. Consumers have now realized that no matter the device used (desktop, laptop, PDA or mobile phone) there exists a growing range of security threats. The very benefits of being able to connect to the Internet through multiple devices are under threat from security threats faced by these devices.

Convenience leads to better security
There is a huge need for making the authentication and access methods more convenient, and at the same time increase security. It is impossible for an individual to remember a large number of different passwords, resulting in confusion. This confusion would be exacerbated if each Internet Based Enterprise (IBE) were to introduce its own new token, and/or other solutions in an attempt to enhance security. The inconvenience of having to walk around with multiple hardware devices is likely to make consumers compromise on the extra security measures making them almost redundant. Due to the inclusion of the many passwords and the impossible task of remembering all of them, many consumers save passwords and logins on the server. Alternatively, some write down passwords and login names. Some even write them on Post-it Notes attached to the screen, so compromising the security even further. Moreover, many forget their passwords, and the IBE has extra cost in retaining passwords or providing users with new ones. The challenge is to find a solution that ensures: - one “global” password/PIN code - a convenient and secure method to store passwords - a secure log-in process so the consumer is assured they are directed to the right site when typing in passwords and login details. The ideal solution...
IT'S YOUR WORLD

Digital technologies... new democracies
Secure electronic identity cards, or “e-ID cards”, are a key tool in overhauling relations between citizens and their institutions. The design, production and deployment of these e-ID cards have been in the works since 1997. Europe has seen a spate of projects in recent years, with Finland leading the way as the first to deploy operational prototypes. It was quickly followed by Estonia and then Belgium. Other uses have been added since then, including e-ticketing for local transport (Estonia, Spain, Belgium), secure purchasing at major retailers in France, Belgium and Italy, access cards to secure public or private premises and public car parks, international exchange of confidential administrative data in Austria and Belgium, electronic voting, e-participation and free Internet access for citizens allowing them to listen to local authorities’ debates and proceedings in Estonia, Belgium and Spain (Barcelona).

E-government is the latest buzzword the world over, in Europe especially. More and more countries, Belgium, France and Estonia among them, are adopting electronic identification documents. These smart card-based tools are allowing citizens and consumers to secure their signature and simplify their access to various administrative services. The rise of the e-citizen in their daily dealings with local and national governments.

E-GOVERNMENT, LEVERAGING DIGITAL CHANGE

Dealing with public services has traditionally been a top-down affair. Today, though, the overriding logic is that of the network, with the focus on horizontal relationships. As in industry, one of the challenges in modernizing public services is to build a horizontal, federal style of management. However, a key condition is the strict protection of citizens’ data and their right to anonymity; at the very least, each citizen must be able to verify the uses being made of personal information. Indeed citizens’ trust depends heavily on their confidence that their personal data are being kept truly confidential, and on the absence of correlation or consolidation between government agencies without their consent. Interoperability between different systems is another key issue at the European level.
The rise of the e-citizen

Extensive work on interoperability between technologies, along with the directives on electronic signatures, on e-trade, electronic invoicing and public procurement, have all paved the way for the emergence of regulatory standards. But interoperability in turn depends on a recognized framework supported by the greatest number of member states. Europe is thus an area of trade, efficiency, competitiveness, and solidarity. The European Commission’s i2010 strategic policy framework mandates measures to encourage member states to exchange protected data as fluidly as possible. The program is supporting the development of a framework for the definition of common e-ID standards, including biometrics. European Commissioner Per Blatsum sums up the core aspects of e-government: To achieve a 100% of public procurement to take place online by 2010, versus 50% today; To make efficient government a reality; To boost satisfaction, transparency and accountability; To cut out red tape and to optimize benefits; To implement key services having a powerful impact on citizens and business, with an interoperability in turn depends on a recognized framework supported by the greatest number of member states. Europe is thus an area of trade, efficiency, competitiveness, and solidarity.

Today the smart card is widely regarded as the most secure authentication medium, simultaneously preventing identity fraud and effectively protecting citizens’ personal data. It makes it a medium of choice for access to e-government applications. Its potential for providing a wide array of services means its semantics can be optimized for many different uses. Beyond the simple State-issued identity card, it is the ideal format for a true citizen’s card giving access to a maximum of services.

Beyond the simple State-issued identity card, it is the ideal format for a true citizen’s card giving access to a maximum of services. The rise of the e-citizen

The rise of the e-citizen

“New e-democracy tools allow greater citizen freedom”

Lawrence Pratchett,
Professor of Local Democracy at De Montfort University, Leicester

Biography
Lawrence Pratchett is Professor of Local Democracy at De Montfort University, Leicester. His research interests are focused around several aspects of local democracy, public administration, and comparative local democracy of both and their mutual customers.

De you think that the sum of local experiences should create a global e-democracy? How can we go from local to global in this case?

Our recent research in five European countries shows that there are not that many different e-democracy initiatives out there. Most localities that are experimenting with e-democracy are focusing on four or five key initiatives: e-voting, e-petitioning, e-consultation, blogging and online discussion forums. However, the ways in which these apparently similar tools are being used, and their relative success, varies considerably between areas, due mainly to the different political contexts in which they are emerging. These differences in experience mean that we cannot expect a global e-democracy that will work the same everywhere on the same technologies. However, what is emerging is a wealth of experience among both politicians and citizens in relation to using these tools for political engagement. In the sense that these skills are transferable at different levels of governance and in relation to a wide range of policy issues, so a global e-democracy is emerging.

New e-democracy tools allow greater citizen freedom in at least two ways. First, they allow much wider engagement: citizens have much greater opportunity to join in, without the usual temporal and geographic constraints that they might experience in the offline world. Second, they allow for greater spontaneity in political engagement, because the old “rules” about who defines the political agenda and political engagement, because the old “rules” about who defines the political agenda and how they want citizens to engage.

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“More than 4.6 million electronic identity (e-ID) cards issued already”

Luc Vanneste,
General Manager of the Belgian National Register

Belgium began issuing electronic identity cards in 2003. What’s the position today?

The tests were very conclusive and the government enshrined the project in law. The 589 Belgian municipalities began deploying the digital environment in June 2005, and today more than 4.6 million electronic identity (e-ID) cards have been issued already, at a rate of approximately 220,000 per month. That means nearly one Belgian in two already holds one of those cards. The aim is to replace the 8.2 million paper cards by electronic ones by end-2009.

What are the main features of your chip-based identity card?

This is a biometric card, with a microchip including a photograph, national registration number, signature and source of identification data (name, addresses etc.). The national register is a population register held in each of our 589 municipalities. This enables government agencies to exchange data among themselves. Consequently the question of a centralized database doesn’t arise for us.

With our card, moreover, citizens will be able to authenticate themselves online, using a PIN code to generate a legally valid electronic signature. It is compulsory for all citizens aged over 12, at a cost of 10 euros.

So cards for Belgian children too are moving into the electronic era?

Yes, we have launched the kids-ID, with a pilot phase now in progress in a half-dozen municipalities. Currently in Belgium a certificate of identity is issued to all children aged under 12. With the centralized production of identity documents there will no longer be any virgin documents at large, at risk of being stolen. The kids-ID indeed uses the same technology, the same format and the same infrastructure as the Belgian identity card, and it will change in line with the adult card, adopting the same technologies.

What new applications will the e-ID enable?

Citizens will be able to perform administrative formalities online, e.g. signing digital documents, identification for online transactions, or for ordering and downloading administrative documents such as a marriage certificate. We also plan to integrate our social security card into this e-ID card, enabling users access their medical files online. Currently, the card permits authentication for filing income tax returns online and ordering documents from city hall, among others.

We are currently considering the introduction of a digital driving licence, along the lines of initiatives seen abroad. But that’s not all; our e-ID card will also give access to private services: it is compatible with the banks, so that customers will be able to authenticate themselves for online transactions. They will even be able to open a bank account online, for certain banks.

What level of security do you offer?

The biometric parameters permit identification based on three factors: the e-ID card, PIN codes, and a personal factor, namely the biometric data. It is hard to assess the precise level of security necessary, so it is more rational to think in terms of the necessary level of identification by estimating the potential damage caused by a fraudulent identity. So the need for identification can vary depending on the expected service, the place, and the time. Whatever the case, for service providers and developers, the existence of a source electronic identity guaranteed by the authorities represents a true challenge in terms of product, service and process innovation.

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IT'S YOUR CHOICE

Digital solutions... new opportunities
Near Field Communication (NFC) will grow massively in the next few years. So what are the advantages and potential of this form of contactless communication? Gerhard Romen, the head of NFC Market Development for Nokia and influential co-founder of the NFC Forum, brings us his expert views.

Gerhard Romen believes that the potential of NFC is boundless.

"Exchange visiting cards, get information or download movie trailers by touching smart posters, buy goods from vending machines, display the map of your location etc. All these operations will soon be possible with a simple wave of your mobile phone."

Functions like these are certain to bring new opportunities for service providers offering value added services with targeted Customer Relationship Management (CRM) programs.

Over the last twenty years, the cell-phone has evolved to become one of our most indispensable everyday objects.

It has metamorphosed beyond its primary purpose into a veritable computer with its own microprocessors, RAM, operating systems, Java programming and secure internet connection. As a result it is growing ever more sophisticated and integrating increasingly personalized functions and services.

A SIMILAR KIND OF EVOLUTION is taking place with NFC, a combination of mobile phone ubiquity and contactless. This "contactless" communication technology is already a part of some people’s everyday lives. It is present in public transport systems in more than 70 cities like the ‘Navigo’ pass cards used in the French Metro in Paris, in biometric passports, and company badges. Mobile operators, for their part, see in NFC opportunities for new partnerships and new services. In short, the future is rosy for NFC. Near Field Communication, or “short-range wireless communication”, combines technologies for identification and interconnection without physical contact, enabling data to be exchanged between a reader and a mobile terminal, or between the mobile terminals themselves. It is also very easy to use. Unlike Bluetooth and Wi-Fi, NFC technology is very short range, so communication between two NFC devices takes place only when they are around four centimetres apart. By its very nature, this very short operating distance confers a high level of security on the data and makes the services easy to use. What’s more, an NFC receiver is not necessarily powered with its own source of energy; it can simply react to the magnetic field produced by the reader.

SERVICES ARE CONVERGING. Gerhard Romen believes that the potential of NFC is boundless. Exchange visiting cards, get information or download movie trailers by touching smart posters, buy goods from vending machines, display the map of your location etc. All these operations will soon be possible with a simple wave of your mobile phone."

For companies involved in telecommunication, like Nokia, NFC constitutes a near-certainty that sales will grow rapidly with the emergence of new services. In particular, it builds a bridge to new sectors of activity that the telephone industry has not previously embraced. Gerhard Romen explains how NFC will revolutionise these various sectors, by making them all accessible from a mobile telephone.

Firstly, NFC will enable us to unify communication between applications that up to now had worked in parallel with each other. Ready-to-use mobile phones would therefore enable users to pay retailers, download content and information from smart advertising posters, send an e-mail by simply waving a phone in front of a tag, communicate security applications and so on. Functions like these are certain to bring new opportunities for service providers offering value added services with targeted Customer Relationship Management (CRM) programs.

In March 2004, Nokia founded the NFC Forum together with Philips Semiconductors (now NXP) and Sony in order to standardise the NFC system. The Forum’s mission is to advance the use of NFC technology by developing specifications, ensuring...
Response

Interoperability among devices and services and educating the market about it. The Forum now has close to a hundred members, including American Express, Bouygues Telecom, France Telecom, Gemalto, JCB, MasterCard International, Nokia, Oberthur Card Systems, RATP, Sony, and Visa International.

NEW BUSINESS OPPORTUNITIES
By using NFC suppliers can maintain a constant presence on users’ mobile handsets and so create real commercial opportunities. Suppliers of consumer goods will be the first to benefit from such an evolution, since NFC will enable a reduction in the handling of cash. The time saved in effecting the payment transaction should result in an increase in revenue and open new scope for making economies.

The promise of a secure payment brings with it the prospect of installing NFC chips in personal computers, opening the way for making online purchases entirely securely.

Microsoft has, for its part, revised the way its architecture handles smart cards and “tokens” (USB dongles with a small memory and built-in processor for effecting access control operations). If the NFC solution is stored in a SIM card, confidential data gathered can be separated in the system by a firewall (by means of a multi-application card), hence ensuring its protection and preventing interactions between different players.

In addition the simplicity and security that NFC technology brings will lead to a rapid uptake of other mobile communication technologies and protocols, such as Bluetooth, Wi-Fi and ZigBee. For example, in the case of transferring files between two computers which both have on-board NFC, the operation could take place without the need to set up a password-controlled link between the two computers. “The target set for 2007 is to launch for example peer-to-peer and other components,” Gerhard Romen revealed.

Gemalto’s unique experience in NFC

Gemalto is at the crossroads between Mobile Network Operators (MNOs), banks, and transport operators. It offers complete end-to-end solutions and business facilitator services.

Vincent Véran, NFC Marketing Director for Gemalto, takes stock.

“The massive arrival of ADSL brought with it harsh competition. MNOs are looking for new growth areas.”

Vincent Véran, NFC Marketing Director for Gemalto

NFC forecast to become one of the essential PAN enablers

Strategy analytics forecast

- 39% penetration by 2010

PAN modernization of global sales (billion)

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

Bluetooth

USB

Wi-Fi-WLAN

Near Field Communication

ZigBee
Enterprises are entering a new age of secure access to private information. At last it is becoming easy for everyone to use identity recognition tools thanks to Microsoft’s systems solutions coupled with Gemalto’s personal authentication solutions.

IAM: enhancing access

Two senior executives talk to us about the changes that Identity and Access Management (IAM) solutions will bring. An interview with James McLaughlin, Senior Manager, Global Alliances, Gemalto, and John G. Chiraputah, Identity & Access Microsoft.

What is the objective of Microsoft’s Identity & Access solutions?

JOHN CHIRAPUTAH: They are a comprehensive set of platform technologies and products that are designed to help organizations manage user identities and associated access privileges. With a focus on security and ease of use, these solutions help businesses boost productivity, reduce IT costs, and eliminate the complexity of identity and access management. You can visit www.microsoft.com for more information.

What are the business benefits of these solutions?

JOHN CHIRAPUTAH: First, they can improve operational efficiency. New businesses can aggregate identities across the enterprise into a single view, simplify user access to multiple applications, reduce IT costs, and increase productivity. Furthermore, it can boost compliance. Companies can ensure that every user has proper access to resources, create auditable processes for access rights, and deploy single sign-on capabilities that comply with company policy. The third aspect is the heightened security. Businesses can reduce the risk of security leaks by ensuring that only authorized users gain access to company resources and that people know who they are dealing with electronically. Last but not least, it enables business success by securely sharing identities across organizational boundaries, businesses can collaborate more efficiently with partners and customers.

What problems do these solutions solve for the enterprise?

JOHN CHIRAPUTAH: Microsoft and Gemalto help organizations eliminate the use of passwords where strong authentication is required for secure access to corporate assets. Benefits, such as ease of management, simplified deployment, reduction of administrative costs and improved security can all be achieved through strong authentication, smart cards and Microsoft Identity Lifecycle Manager (ILM) 2007. Specific scenarios include secure multi-factor authentication for remote access and desktop log-on. It also offers the ability to provide secure e-mail and digital certificates for data protection and code signing. Microsoft Identity Lifecycle Manager 2007 gives organizations an easier way to deploy and maintain digital certificates and smart cards without adding the overhead of IT costs.

JOHN CHIRAPUTAH: Customers look to Microsoft and its world class Directory Services solution powered by Active Directory to manage and maintain identities. Microsoft Identity Lifecycle Manager 2007 provides an integrated and comprehensive solution for managing the entire lifecycle of user identities and their associated credentials. It provides identity administration, certificate and password management, and user provisioning in a single solution that works across Microsoft Windows and other heterogeneous systems. As a result, IT organizations can define and automate the processes used to manage identities from creation to retirement.

“Away with security and ease of use, these solutions help businesses boost productivity, reduce IT costs.”

John Chiraputah
At the end of 2006, Gemalto launched CardLikeMe™ to address this need for unique card design. CardLikeMe™ Web services enable cardholders to upload the image of their choice directly from their computer and order online. CardLikeMe™ Web service is fully integrated into the card issuer environment with each screen customized to their specifications. Cardholders connect to their bank’s website to order their card. Gemalto manages the whole process from photo upload to card issuance in the highest security standards throughout a server secured by SSL. The website is customized following the bank’s specifications. Graphic personalization appears to be a real market trend in the payment cards business. CardLikeMe™ by Gemalto is an efficient and easy to implement solution.

Surveys show that segments such as young people and women are particularly interested in innovative card designs and applications adapted to their needs and interests. Cardholders are more likely to use a card they like thus resulting in increased card usage. This is why more and more banks around the world are launching products to target specific customer groups, some examples being cards for women in Korea (LG Capital Services and Kookmin Bank), Japan, (JCB), India (Standard Chartered Bank) and Malaysia (United Overseas Bank), soccer fans cards in Spain, the UK or Singapore; and cards for youngsters in France, Belgium or Spain.

HIGH EXPECTATIONS FROM YOUNGSTERS

The “Generation Y” (15-24 years-old) is an appealing target for financial institutions. Examples are numerous: both Caisse d’Epargne (France) and Fortis (Belgium) launched transparent cards for this customer group very successfully. In Spain, La Caixa offers a denim card with a tactile effect and has gone further with its card called UXCA in “La Caja” in SMS language, a powerful communication code amid the youth. Gemalto conducted a survey in 2006 at an international scale*. Results have shown high expectations from young consumers in terms of payment card design. More than half (52%) of those questioned were interested in having a customized card, to reproduce what they already do with their mobile phones or computers. The idea they appreciated the most was to be able to choose a photo for the design of their card. The same survey confirmed that a high percentage of women are also interested in this concept. In Australia the figures go up to 63%, and in the US 58%.

* 1,703 interviews done from June to September 2006 in eight countries: France, UK, Germany, Spain, Malaysia, USA, and Australia.

Banking cards get personal

Competition between banks is getting tougher. Innovative card bodies and design are a way to differentiate from the competition and attract customers.

Secure application delivery. Gemalto and Citrix® are a perfect complement to each other. Using the Citrix Application Delivery Infrastructure, you can improve security by making two-factor authentication a prerequisite for all applications. Working together, Gemalto and Citrix reduce the cost of administering multiple passwords, using smart cards to control access to applications and data. The result is an enhanced user experience and stronger application security. It’s future-proof security, any time, anywhere, with any application. Learn more at www.citrix.com/gemaltonsecurity.
Digital security around the world

“We are delighted to provide Barclays customers with the freedom to enjoy enhanced security and simple remote banking, whether at home or on the move.”

Philippe Cambriel, Executive Vice President Secure Transactions

SFR SUBSCRIBERS ENJOY ADVANCED PHONEBOOK MANAGEMENT FEATURES

SFR, France’s no. 2 mobile operator, has integrated Gemalto’s SIM phonebook backup and synchronization solution into every new SIM card issued. This allows subscribers to easily manage their contacts from either their handset or SFR’s website. An exclusive function enables subscribers to configure an automatic backup after every ten new contacts entered. Thanks to SFR’s affordably priced pay-per-use billing program, the service has achieved a 20% uptake since its launch in July 2005, a remarkable penetration rate for a value-added mobile service.

PORTUGAL PAVES THE WAY IN EUROPE WITH NATIONAL E-ID PROJECT

Portugal is setting the pace for national ID card interoperability in Europe, and is rapidly introducing e-government. Now Gemalto is to supply Imprensa Nacional-Casa da Moeda (INCM), the Portuguese Mint and National Printing Office, with a national e-ID card solution. The package includes the secure operating system, personalization and applications, the middleware and associated helpdesk services. The credit card-sized smart card incorporates a built-in biometrics (fingerprint) feature as well as extended secure printing features. Later it will also replace the elector’s card. Additionally the card will be able to generate a legally binding digital signature for secure administrative declarations and other procedures. In another application, forensic and police authorities will be able to perform identity verification through fingerprint checks. More than 2 million cards will be issued per year under this e-ID program, the first in Europe to be based on Identification Authentication Signature (IAS) specifications. Gemalto is working with partners Zetes and Precise Biometrics to develop parts of this solution. The first pilot phase was launched in the Azores region in February 2007.

Europe and Africa

1.7 million

Users of Barclays Online Banking

Barclays, one of the world’s largest financial services institutions, has over 1.7 million Internet service users who completed 214 million online transactions in 2006. In 2007 it was awarded Anti-Fraud Strategy of the Year at the Financial Sector Technology Awards. Now Gemalto is providing Barclays with a tailor-made solution enabling them to offer stronger authentication for these transactions. It includes authentication devices compatible with the bank’s visual identity and full service including reader production plus certification and distribution to customers.

What’s new with Gemalto

Europe and Africa

Digital security around the world

Africa

Germany

80 million

patient cards will be renewed over the next 5 years.

Source: Gemalto

Europe

More than half (60%) of large European businesses do not adequately secure data leaving their organization by using encryption. This is despite the fact that more than one in ten (13%) of responding European organizations admitted a data breach of unauthorized confidential information leaving their organizations within the last year.

Source: Tumbleweed Communications

UK

How many UK businesses have outsourced any of their IT operations?

Europe and Africa

40%

60%

Germany

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GEMALTO ACQUIRES LEIGH MARDON
INTERESTS IN AUSTRALIA AND TAIWAN

Gemalto has acquired Leigh Mardon’s 90% interest in LM Gemplus Pty Ltd, an joint venture formed to supply bank cards in Australia, Leigh Mardon Australia’s leading supplier of contactless EMV stripe banking cards and security services. Gemalto plans to combine the LM Gemplus team with its existing wholly owned business to address the Telecom IT Security and Banking Security markets.

WHO’S “CITRIX READY” NOW?

“...This recognition validates our close collaboration with Citrix Systems.”

Francis Lassner, Vice President and General Manager of Security for Gemalto North America

EMV MIGRATION DRIVES STRONG FINANCIAL SERVICES MARKET GROWTH IN BRAZIL

Gemalto has signed an exclusive option agreement to purchase the remaining 51% stake of Gemplus Bank Note (GBN), a 50-50 joint venture with American Bank Note. GBN is the leader in plastic cards, identification and payment management solutions in Brazil. GBN’s main customers, the largest Brazilian banks, are currently migrating to EMV cards, generating rapid growth in Brazil’s financial services market and strong demand for Gemalto’s products and services.

The planned buyout reflects Gemalto’s drive to support its customers as they expand.

GEMALTO SECURITY EXPERT JOINS KEY DHS COMMITTEE

Navilla Pattinson, VP Government Affairs and Standards at Gemalto, has been named to the US Department of Homeland Security (DHS) Data Privacy and Integrity Advisory Committee. This committee advises the Secretary for Homeland Security on policy and technology issues affecting individual privacy, data integrity and data interoperability. Pattinson is a leading expert on smart card-based digital security technology.

THE GEMALTO SECURITY EXPERT JOINS KEY DHS COMMITTEE

SOUTH AMERICA INTERNET USERS

- 370,752,193 population estimate for South America in 2007
- 60,488,177 Internet users as of January 2007, 16.3% penetration rate

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MTN South Africa is part of the MTN Group, a multinational telecommunications company operating in 21 countries in Africa and the Middle East. As of Q1 2007, twelve years after it was launched, the group had over 10 million subscribers in South Africa and over 41 million subscribers across all of its various operations. Gemalto’s contribution to this new service includes the supply of third generation cards as well as consulting services and project management. It was able to supply the secure uSIM platform and complete the project development in record time. Gemalto took just twelve weeks from qualifying for the contract to supplying the platform, in time for the start of the trial on 1st October last year. To do so, it had to mobilize and coordinate a complete team related to six different departments to work together and achieve the most advanced technology delivery ever in Africa.

MTN’s objectives in the project were to be the first to market mobile TV via DVB-H/3G in Africa, and hence maintain its position in the value chain. Its biggest challenge was how to be “disruptively innovative” and retain MTN’s valuable high-end customers. It also wanted to surprise subscriber expectations and to establish strategic partnerships. All this on a platform that is ready for billing. The requirement, of course, was for a fully secure system based around the use of USIM chips.

In order to provide such a service, MTN needed the highest possible level of security. As there are no online checks, a single hacked card is able to compromise the whole system. The method selected was to use Gemalto’s new UpTeq range of mobile TV uSIM cards, which can embed various applications, notably the Conditional Access System (CAS), which ensures that each subscriber can only view the programs they are entitled to. Gemalto provides a unique remote management service, which means that software in the uSIM can be updated to reflect the changes in users’ rights, for example. Furthermore, security updates can be implemented proactively at any time to prevent hacking attacks, making the system secure over time. This approach has the advantage of providing the best possible security for this class of service and also allowing new services to be introduced after the cards have been issued.

MTN, the leading mobile operator in South Africa, has added another string to its bow. After successfully launching TV via 3G it has now started operating pay TV services using broadcast DVB-H technology. Gemalto’s UpTeq chips are an essential link in the chain, providing the security that makes it all possible.
Mobile TV is the future of content delivery and entertainment. As we witness the rise of 5G networks and the increasing demand for high-quality multimedia content, mobile TV becomes an essential part of the future media landscape. With its ability to connect users seamlessly to a vast array of content, mobile TV offers a unique platform for content creators to reach their audience on the go.

### Mobile TV: Diversity in the Market

- **Italy**: 3 Italia, a subsidiary of Hutchison Whampoa, launched its DVB-H mobile television service just before the start of the 2006 soccer tournament in June last year. The number of subscribers is quickly approaching the half-million mark.
- **NAMIBIA** and **BOTSWANA** are also exploring the potential of mobile TV, with NAMIBIA already taking up mobile telephones in a big way – penetration is a massive 133%, meaning that there are more mobile phones than people. One would have thought there would be little room left for a newcomer. Yet in March 2003, 3 Italia, a subsidiary of Hutchison Whampoa, became the first Italian operator to offer DVB-H services. Describing themselves as a "Mobile Media Company", with all kinds of data services at the core of its packages, it quickly built up a strong penetration. By March this year, the number of subscribers had captured 45% of the UMTS market and had the highest average revenue per user (ARPU) at any of the operators, at €6.6 in Italy. 35% of its revenue comes from services other than voice calls, more than double that of any of the other operators. (Image 467x667 to 860x139)

### Mobile TV in Italy

3 Italia worked closely with handset manufacturers (handsets launched LG u900 & Samsung Sleek4) to create a new type of multimedia TV. Mobile operators have teamed up with television companies (la Tre, Mediaset and Sky Italia) to develop an attractive range of content to put onto its network. The benefit to 3 Italia has been to guarantee its position as leading mobile operator in the domain of multimedia and content. Through its acquisition of a broadcaster, it has been able to keep the cost of acquiring content down. Moreover, it has even been able to sell content on to other operators. Its involvement in content creation, production and aggregation puts it in a strong position to negotiate deals for more content with third parties. Finally, the launch of mobile TV has led to an observable increase in ARPU, of between €5 and €10 a month.

### Gemalto’s role

As the world’s leading provider of security solutions, Gemalto plays a key role in ensuring the security and reliability of mobile TV services. Through its encryption technology, Gemalto provides a secure environment for content distribution, ensuring that only authorized users can access the content. This not only protects the content from unauthorized access but also ensures that the service remains compliant with international standards.

### Conclusion

Mobile TV is not just a technology; it is a service that has the potential to transform the way we consume content. As mobile operators continue to invest in this technology, we can expect to see a significant increase in the number of subscribers and the types of content available. Mobile TV is here to stay, and its impact on the media landscape cannot be overstated.