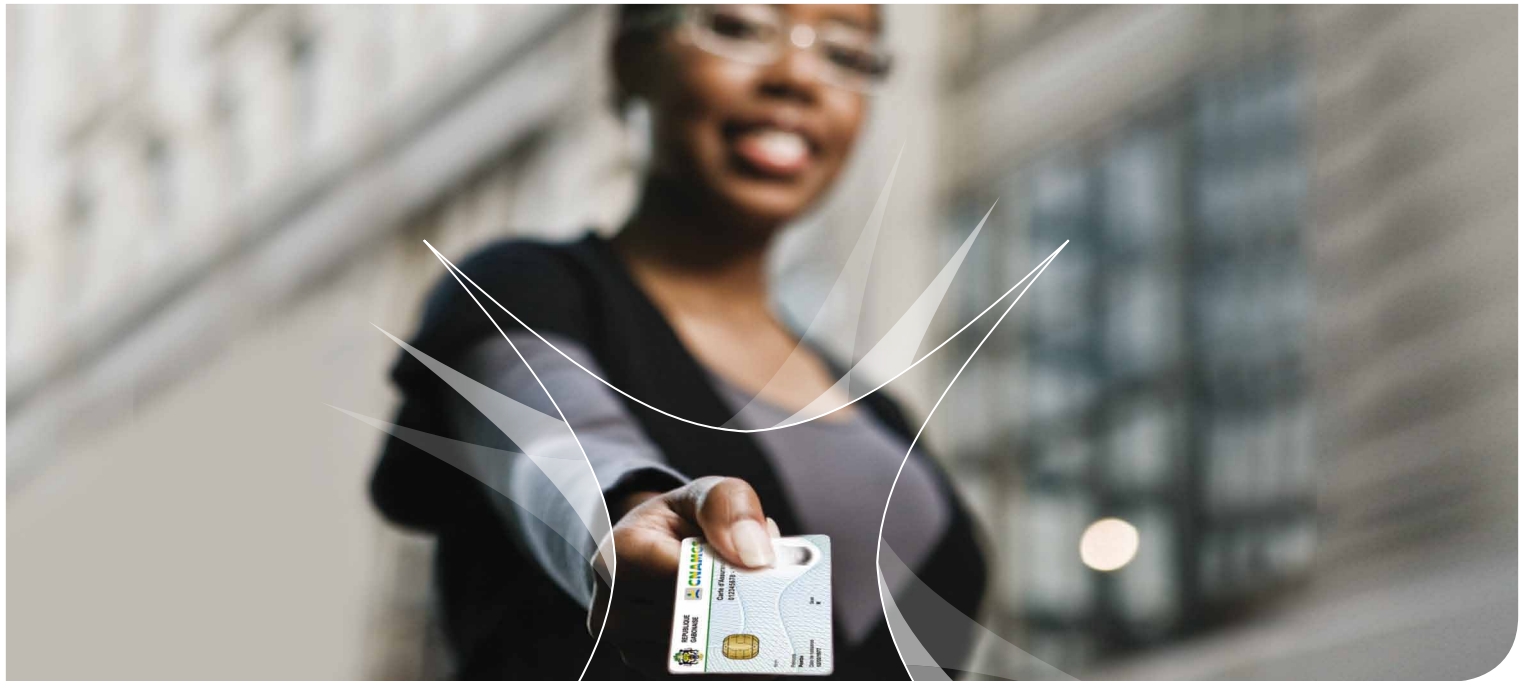# New identity cards

||||| Providing security, confidentiality and opening the door to eServices

PUBLIC SECTOR > CASE STUDY

A hallmark of citizenship and cohesion

The right to identify citizens, but also the duty to protect their identity, are perfect examples of the responsibilities that come with a State's right of sovereignty.

The secure documents issued by government authorities for just this purpose not only allow states to identify their citizens but also to distinguish them from foreign nationals, who may, for whatever political or economic reasons, seek to fraudulently benefit from rights reserved to citizens of that particular state.

The Portuguese ID card replaces a set of five former identity documents. It also provides access to many new online services. It is a symbol of the radical modernization of public services and of the country as a whole.

> **The main objectives of our customers today**
> - Build a modern, secure civil register on which public services and administrations can confidently and sustainably rely
> - Modernize identity documents in order to help actively combat document fraud and increase levels of trust at both national and international levels
> - Ensure compliance with international identity and travel document standards
> - Help to bring about decentralization and strengthen the bond between public services and citizens
> - Provide a shared and future-proof platform for the creation of identity documents and the delivery of public services for all government authorities
> - Lay the foundations for a modern, digital economy
> - Provide citizens with a guarantee that their data is protected and can be exchanged in confidence

These documents also enable the citizen to exercise their rights and responsibilities. Clearly, document theft and fraud are sources of social injustice as the community may inadvertently allocate resources to an ill-intentioned individual feigning another person's identity, thus depriving the genuine citizen of that to which he or she is legally entitled.

The most important requirement is therefore the inviolability of issued documents. It is quite clearly the reason why states are now modernizing their national identity documents to move over to highly-secure documents incorporating all the very latest secure printing innovations.

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New identity cards

A means of guaranteeing the security and protection of citizens' data in a digital world

The number of digital exchanges has increased exponentially over the last 10 years, from 100 million to 30 billion private or professional emails. Ease of use goes hand-in-hand with the general public's perception of the relative fragility of electronic media.

The absence of "written proof" and eye witnesses, which is characteristic of electronic modes of exchange, very quickly led to the identification of a requirement to guarantee the identity of the issuer or the receiver.

Since 1997, the design, production and deployment of Secure Electronic National Identity Cards, more generally known as "e-ID Cards", has been seeking to meet just that requirement.

The idea of an electronic identity card which is both physically valid and valid for digital use is fast becoming a reality

Furthermore, the electronic format of such ID cards means that, in addition to being used for electronic signature applications, they are also ideally suited to be employed for other uses such as access cards to grant the holder access to company infrastructures or secure locations, as well as social security cards and in some countries, drivers licenses, healthcare cards, "Pass cards" for transport services, payment cards or even bank cards.

How does it work and what does it do?

The smart card (microprocessor) is considered to be the most secure means of authentication, making it possible both to prevent identity fraud and protect citizen's personal data in an effective way. It is the media of choice for granting access to e-Government applications. It can also be used as a means of hosting a range of other applications (e-payment, e-purse, digital signature, authentication, identification, travel card, etc.). This potential to provide a range of different services on a single format means a

The quality, the reliability and the perceived value of an identity card (in this instance the polycarbonate Swedish ID card) all help to build confidence and facilitate adoption.

number of uses can be brought together in the most ergonomic way possible, thereby transforming a simple State identity card into a card which is of genuine use to the citizen, granting them access to the widest possible range of State services.

Thanks to the chip incorporated into it, the e-ID card is now able to serve three distinct functions. Identification, authentication and signature.

The first function of the identity card is identification of the holder. The e-ID provides exactly the same information as the traditional identity card but this information is also stored on the chip. The e-ID can therefore be used for two different forms of identification:
> **Visual, face-to-face identification:** using the information visible on the card,
> **Automatic identification:** by acquisition of the data stored on the chip. This sort of identification can be performed remotely over the internet.

Identification alone (whether it be visual or automatic) does not allow us to be certain that the applicant is the person he/she is claiming to be. To be sure of this, we need authentication. This is where the second function of the chip on the e-ID card comes into play: card holder authentication. This is a new function that was not physically present on old identity cards. The electronic chip contains a digital certificate of

authentication which can "electronically" prove the identity of the cardholder. Authentication offers a better level of security than identification as it requires the user to be in possession of the e-ID and to know the corresponding PIN code.

The third function is also an addition to what was offered by the conventional identity card. A second certificate, located on the chip of the electronic card, allows for an authentic electronic signature to be applied to electronic documents.

After entering his/her e-ID card, the citizen can then confirm his/her approval in a window which will then generate a unique document signature. Every year, each citizen fills out a large number of administrative forms that all have to go through a more or less time-consuming identification process. This process, currently a reality at many different counters throughout the country, usually involves the following steps:

> The identity of the applicant has to be checked by the civil servant,
> Data has to be transcribed or encoded,
> The applicant has to sign his/her application.

Using e-ID cards, these operations can all be performed in seconds.

In 2009, after the deployment of its identity cards, the Sultanate of Oman activated the e-Purse functionality of the cards. e-Purse is a practical electronic payment tool, particularly useful for those without access to banking services. It is used to identify and sign documents using digital fingerprinting at ATMs in order to simplify the lives of those clients with low levels of literacy, as well as to reduce errors and waiting times.

Belgian citizens are now able to identify themselves and report crimes to the federal Belgian police over the Internet using their e-ID card. The process saves significant time compared to the traditional lengthy process of reporting crimes at police stations, which takes an average of two hours. The scheme is part of the Belgian government's plan to simplify the country's administrative processes.

> Applications:
- Local administrations
- Police stations
- Post offices
- Banks
- Social sector
- Vehicle or equipment rental services
- Transport (in Estonia)
- Healthcare and hospitals (Malta, Belgium, Italy, etc.).

> Benefits:
- Saving time: identification processes are carried out much more quickly and efficiently, even in an over-the-counter setting
- In terms of physical identity checks, the visual inspections are carried out in the same way as with a traditional card. Border control personnel can check the photo saved to the smart card
- Quality and consistency of information gathered: a strong decrease in the number of errors/inaccuracies in coding
- Reduction in the number of errors in data entry
- Economy and ecology: a reduction in the amount of paper used means less archiving is necessary

■ Online access control

These applications are carried out remotely and therefore require a computer, a card reader and an internet connection.
As for physical access control, it is important to be able to filter access for certain internet sites, applications and databases.

> Applications:
- Internet sites requiring specific access control (teleworking, restricted user groups, secure emails)
- Restricted access for minors to certain sites with sensitive content (forums, online gambling)
- Access to databases and their online files

> Benefits:
- Easy of use
- Increased security over the Web
- Better protection for minors

■ Identification and authentication on the internet

The authentication element of e-ID is probably the component that offers the most potential, by offering the capacity for digital signature. Electronic authentication is something that is to set to revolutionize our lives as citizens. All official documents that previously had to be approved with a manual signature will now all be able to be authenticated with an electronic signature.

> Applications:
- Online declarations (tax declarations, VAT declarations, police)
- Remote signature of contracts
- eVoting
- Remote justice (remote submission of testimony, submission of decrees, remote access to verdicts rendered)
- e-Commerce (purchase of tickets for sporting events, remote public auctions)
- Professional certification cards (lawyers, solicitors)

> Benefits:
- Significant time savings: the user doesn't have to travel to the point of delivery
- Cost savings: travel costs, postal costs
- Widespread availability: service available 24/7, regardless of the user's location
- Ecology: reduction in the amount of paper used

The deployment of these digital documents provides real services and benefits to citizens and companies in terms of their day-to-day interaction with local or national administration.

Our observations clearly show that e-ID has become a real catalyst for the success of e-Government, particularly in countries where communication goes hand in hand with the modernization of relations with citizens and businesses, demonstrating that e-ID is an efficient tool for the exercising and protection of citizens' rights.

Two key factors are strongly associated with the success of this project: citizens' confidence in and adoption of these secure documents. These factors make it easier to obtain the political support needed for these projects and enable the considerable funds required for their deployment to be committed. The card ensures secure access to digital files and protects the citizen's personal data and all their virtual administrative documents against any form of intrusion. In addition to covering more conventional needs in terms of physical security and use of the internet, such as e-Commerce, payments, online taxes and secure access to administrative files, new areas of application where such solutions can be used to benefit citizens and businesses are gradually being opened up as part of various pilot schemes.

Examples of these applications are:

> Monitoring, treatment history and prevention in healthcare, (Belgium, France, Germany, Portugal, South-East)
> Children's aid (Belgium)
> Computer ticketing or e-Ticketing, as a way of regular billing for local transport subscriptions (Estonia, Spain, Belgium)
> Secure purchasing for the extended enterprise (France, Belgium, Italy, etc.)
> Access cards for access to private or public secure locations or public car parks
> Application links with digital verification of roles and powers of authorization for use in the international exchange of confidential government data (Austria, Belgium, Europol, EuroJust, etc)
> Electronic vote, e-participation and free internet access for citizens attending debates and deliberation sessions of local authorities (Estonia, Belgium, France, Spain (Barcelona), etc.)

What are the main concerns of citizens?

Our studies (Gemalto 2007-2009) systematically show a higher degree of sensitivity when it comes to "proximity" services in areas such as social services, healthcare, finance and education, followed by transport and access to public leisure services as a second phase. The success of online tax declarations has been concrete and spectacular right across Europe. In addition to this, in countries where the most progress has been made, we can see a strong synergy between policies at both national and local level (Austria, Belgium, Estonia, Portugal, Sweden, etc).

Gemalto and identity programs

Out of the 25 e-ID card projects that have been rolled out worldwide, 15 are references which Gemalto can cite as part of its portfolio (Belgium, Finland, Hong Kong, Sweden, Oman, United Arab Emirates, Qatar, Bahrain, Saudi Arabia, Portugal, Kuwait, Lithuania to name just some examples).

The most advanced states use our expertise in digital security and our 120 years of experience in secure printing to smoothly implement our tried and tested solutions.

Our solutions to modernize civil records, enrolment, personalization, training and project management are operational in over 50 national programs.

Further, our managed services allow us to provide an end-to-end service – right through from manufacture to delivery to local authorities or citizens (the police of Denmark, Sweden, Norway, Estonia, etc.).

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