Republic of South Africa’s Smart ID Program

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The Republic of South Africa (RSA), at the southern tip of Africa, is seen as a newly industrialized country with strong growth potential. With the largest economy in Africa, and the 28th-largest in the world, a National Development Plan identified a number of target actions to bring about social and economic advancement for its citizens. The Department of Home Affairs (DHA), responsible for the identity and status of citizens and other residents in the RSA, has looked to new technology solutions to bring about the modernization of state services in Africa’s largest national identity program.

Linking identity and citizenship
RSA, with a population of over 51 million and international borders with six different countries, is a multi-ethnic nation. Citizens and permanent residents aged over 16 are required to have a green bar-coded identity book which is used as proof of identification for many official uses such as applying for a driver’s license or passport, registering to vote and opening a bank account. However, fraud and theft has made the paper book system increasingly insecure for individuals and the state. As part of a major national investment in technology modernization, the DHA decided to put in place a smart ID card system.

Better protection against ID fraud
Following research into national eID programs implemented by governments across the world, the DHA opted for an eID system - for its high level of security and advanced data-protection mechanisms. In RSA, two means of authentication will be used – biometric fingerprint verification and a pin code known only to the user. An embedded secure software with its microprocessor securely contains identification details and ensures that only authorized authorities can read and verify the card’s data using contactless machine-readable scanners. The inclusion of this biometric identification makes it virtually impossible to duplicate the card and ensures, for the first time, that citizens can be securely authenticated to their eID document.

Global and local expertise for a phased rollout
Following a pilot last year, the new eID program will be launched from July 2013, with a phased rollout over five to seven years. It’s expected that around 3m eID cards a year will be delivered by the Government Printing Works (GPW), through enrolment in some 27 regional offices across the country. Over the next three years, more offices will be equipped to perform live-data capture as rollout ramps up nationally.

Gemalto was chosen to provide its Gemalto eID cards, based on its secure embedded software technology, contactless expertise and ability to deliver durable polycarbonate eID documents within an ambitious schedule, as well as a long-established presence in Johannesburg.

Features of the RSA eID:

- Embedded microprocessor to securely store citizen’s personal data, including digital photograph and fingerprints
- Encryption keys to enable identification and verification of card holder via contactless technology based on international standards
- Visual security printing features to protect against forgery
- Highly durable polycarbonate eID card body
GPW will harness Gemalto’s secure embedded software to protect the holder’s image and biometric data within the secure identity e-document, delivering outstanding levels of integrity and privacy. The high-end Gemalto eID, equipped with contactless capability, will moreover bring added levels of convenience and security for citizens. Building on its experience in over 80 national programs worldwide, Gemalto is providing GPW with an advanced and highly durable polycarbonate eID card specifically designed to counter forgery.

Gemalto’s Gemalto BioPIN, “Match on Card” feature, allows fingerprints to be checked locally using the microprocessor of the eID card. It ensures the citizen’s information never leaves the card and does not require any connection to a central database.

**Improving future government services to citizens**
This new smart-card based infrastructure offers the opportunity to facilitate additional e-government services as part of RSA’s modernization ambition. The Gemalto eID supports public key infrastructure (PKI) and match-on-card authentication techniques to enable easy verification of identification and a future-proof platform capable of providing a broad range of secure online services such as online and in-person authentication as well as legally binding digital signatures. Government departments of transport, health and social development are looking at how to exploit the eID functionality.

With this, Africa’s largest national identity program, RSA joins the growing number of countries who have turned to eID programs for more reliable identification and authentication methods for better citizen security and convenience.

**Securing government services**
> Reduce identity fraud and theft
> One single national e-ID for all citizens
> Future platform for a suite of eGovernment services including online authentication and digital signatures

**Benefits for citizens**
> Eliminates the need to carry multiple ID documents
> Improves confidence in official identity credentials
> Speeds identity checks at border crossing
> Establishes citizenship in the National Population Register for voting and other civic interactions

**A multi-objective modernization program**
IN 2013/2014 more than R348 million (approximately €28m) has been allocated to introduce technology modernization. The eID system forms part of a number of initiatives aimed at improving the security and delivery of government services to RSA citizens. Priorities include:
> Enhancing security through the creation of a reliable National Population Register
> Ensuring that all 16 year olds apply for and receive IDs.
> Supporting national security by establishing secure, efficient and reliable ports of entry through e-visa issuing, Trusted Traveller Program and Enhanced Electronic Movement Control System.
About Gemalto

Gemalto, a Thales company, is a global leader in digital security, bringing trust to an increasingly connected world. We design and deliver a wide range of products, software and services based on two core technologies: digital identification and data protection.

Our solutions are used by more than 30,000 businesses and governments in 180 countries enabling them to deliver secure digital services for billions of individuals and things. Our technology is at the heart of modern life, from payment to enterprise security and the Internet of Things.

We have built a unique portfolio of technology and expertise including physical and digital identity credentials, multiple methods of authentication – including biometrics – and IoT connectivity as well as data encryption and cloud service protection. Together, these technologies help organizations protect the entire digital service lifecycle from sign-up to sign-in and account deletion with data privacy managed throughout.

Gemalto is part of the Thales group, a €19bn international organization with more than 80,000 employees in 68 countries worldwide.