

Computerized voter registration in Benin

||||| A foundation for a stronger democracy



GOVERNMENT > CASE STUDY

Gateway to the continent, the Republic of Benin occupies a land area of 112,000 square kilometers. The country has a population of 8.8 million with 41% of Beninese residing in urban areas.

Democratic representation in the balance

The country gained full independence in 1960. Benin took steps to embrace multiparty democracy as early as 1989. As one of Africa's most stable democracies, Benin has held four presidential elections (in 1991, 1996, 2001 and 2006), five legislative elections (in 1991, 1995, 1999, 2003 and 2007) and two local elections (in 2002 and 2008). The next round is slated for 2011, with simultaneous holding of presidential and legislative elections.

Reforming Benin's electoral process

Despite the regularity of free and fair elections in Benin in the last 20 years, experts believe the lack of a computerized list of eligible voters reveals a serious inadequacy in the electoral process and runs the risk of hampering democracy in the long term.

Several measures have been taken in Benin to date to maintain the integrity of the electoral process. These include the establishment of the Commission Electorale Nationale Autonome (CENA) in 1995, as well as introduction of transparent ballot boxes, adoption of a uniform ballot format and on-premises vote counting at polling places.

Likewise, shortcomings in the current voter registration system have built broad consensus in favor of an overhaul. Both international and national stakeholders—including politicians, analysts and institutions



directly involved in voter registration—point to the persistent flaws and failures that contribute to contestation of results and major difficulties in the administration of elections. The country is now instituting computerized voter registration to restore the credibility of the electoral process.

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A pressing need for computerized registration

Enacted in May 2009, the Beninese government's initiative to implement computerized voter registration (La liste électorale permanente informatisée, or LEPI) aims to significantly reduce the risk of electoral fraud and control the costs of holding elections.

By implementing secure biometric registration and optimizing process management, the government aims to compile a national database enabling reliable authentication of all eligible voters. According to assessments by experts, a four-month time-frame is required to complete the necessary census mapping and data exploitation before the next elections are held.

An invitation to bid for the procurement of digital mobile registration kits was issued in January



2010. Following stringent testing in real-life situations and subsequent approval by an independent committee, the contract was awarded to Gemalto June 9, 2010. The country is now implementing Gemalto's Coesys Solution for Electoral Enrolment ahead of the March 2011 presidential elections. The commission expects to register more than 6 million voters.

Security to protect voter rights and privacy

Gemalto's mobile enrolment station is a portable version of the Coesys Enrolment solution. Self-contained and easy to transport, the fully integrated system is designed specifically for biometric registration campaigns. Its rugged design and sturdy construction make it suitable for any environment.

Each station folds away neatly into a rolling upright suitcase for maximum mobility. The stand-alone unit comes ready to deploy and requires no set-up, allowing officers to reach out to vast numbers of citizens in the shortest turnaround time possible and eliminating risks of losing cables or other elements. This is especially crucial to meeting the tight deadline, given that Benin's population is scattered across the country. It is also appreciated by citizens who very often come a long way to enroll.

Benin's voter registration kit: a customized enrolment solution

Benin's mobile enrolment kit is a robust, waterproof, self-powered plug-and-enrol solution tested to US military standards (MIL-STD-810) and customized to specifications. The Gemalto solution comprises over 3,200 Coesys Mobile Enrolment Stations as well as a full suite of software designed to capture citizens' demographic data, fingerprints and digital photographs in the field. Gemalto is also to provide software solutions for national data consolidation, as well as training, technical assistance and relevant logistics support.

Coesys Mobile Enrolment Stations are delivered with all components needed to register voters, including:

- Digital camera
- Fingerprint capture device
- Laptop PC
- Electronic power supply board
- All necessary software



600 units ready to be shipped

Power units

Each unit provides an 8-hour power supply to the mobile enrolment unit in areas where there is no power, such as isolated villages. In cities where there are frequent power outages, the power unit can be used in tandem with grid power. The enrolment kit power board transparently manages the automatic switch between grid power and the external power source. A generator supplied with the kit can be used to restore the battery to full charge at the end of the day.

The power unit comprises:

- An external power supply (choice of lead battery, solar panel or lithium-ion battery)
- A battery charger and tester used to charge and test the battery
- A generator used to charge the battery
- All necessary cables, including a security cable and lock for the generator



Custom software solution

The voter registration software customized to Benin's specifications spans the biometric enrolment software modules, the consolidation application developed for the municipalities which aggregates all data collected by the enrolment kits and the national application for consolidation of all records sent by municipalities to generate the national electoral rolls. This application checks for duplicate enrolment and other irregularities. Its data will form the base for the LEPI.

office software were customized to Benin's specifications. Special care was taken to ensure the integrity of all data collected, from biometric authentication of officers manning the station to the use of electronic signatures supported by certificates. Throughout the campaign, DVDs containing encrypted data gathered in the field will be sent on a daily basis to the national center.

Quick facts on Benin's Coesys Enrolment solution

- Fully customized enrollment software solution
- 3,215 enrolment kits and power units shipped in under 2 months
- Over 230 tons of equipment
- 1,200 square meters of secure storage in Cotonou
- 4,525 operators trained in 6 weeks
- 6 million voters to be registered



Coesys Enrolment unit at work – July "Train the Trainer" session in Cotonou

Coesys electoral enrolment solutions draw on proven, secure registration solutions developed by Gemalto for identity documents, such as identity cards, passports and driver's licenses. The full range of solutions was developed specifically for electoral boards that need to perform enrolment campaigns at regular intervals in order to prepare for elections.

Contract fulfillment: a four-pronged challenge

Lead time, logistics, training and security presented very specific issues to address in order to meet Benin's ambitious deadline.

> Lead time

Given that the contract was awarded on June 9, 2010, with a deadline for delivery of all kits by August 14, 2010, tight turnaround presented the chief challenge for Gemalto to overcome.

> Logistics

To manufacture 3,215 mobile enrolment kits from June 24 to August 14, a dedicated supply chain optimized to manage rapid component supply, kit assembly, quality control and delivery was set up especially for the Beninese government. The full shipment of kits came to 70 tons and was shipped from Paris to Cotonou for storage in public stadium. Four cargo flights were also scheduled to ship 3,215 power units comprising a generator, battery and charger from Hong Kong. A dedicated platform was set up to install Coesys Enrolment software on all of the kits on the premises.

> Training

In July and August, Gemalto dispatched a team of instructors to train government personnel assigned to operate the mobile units. Devised to ensure fast, efficient knowledge transfer, the program featured specially developed training methods for effective skills building. A first shipment of 120 kits was delivered on July 2. Using the "Train the Trainer" principle, 120 instructors were trained July 5-9 in Cotonou. Subsequently, 100 workshops were held and 4,525 operators completed training by August 18.

> Security

To meet the high security standards required to protect personal data privacy, both front-office and back-

Next step: live enrolment for 6 million voters

Benin's voter registration campaign is scheduled for deployment in the field in September 2010. Officers will be reaching out to the population, inviting citizens to visit specially set-up registration centers located in the town halls of villages and districts. A public service announcement campaign has been launched to get the word out across the country.

"To put it in the simplest of terms, the LEPI is a Beninese innovation serving the public interest—indeed serving the public good."

Conclusion of first training session in Cotonou

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