



Coesys Border Management

Offering convenience for secure border crossing

Improving border intelligence for detection and prevention

Supporting your immigration organization

Combating cross-border crime, terrorism and illegal crossings requires tremendous efforts to identify and prevent threats challenging land, maritime and air borders. To maximize these efforts and ensure the safety of citizens, police and immigration enforcement can now rely on a unified border management system for full operational control.

From border control to border management



With steadily growing numbers of travelers, states need to address the challenge of striking the right balance between open yet fully secure, controlled borders. Coesys Border Management provides a full range of applications to implement best-practice immigration processes and state-of-the-art technologies at border management headquarters (HQ) and border control points (BCPs). The solution enables border control agencies to process both arriving and departing travelers in wide-ranging situations at air, land and sea points of entry- at both manned immigration desks and Automatic Border Control (ABC) gates.

> 11 billion

Air traffic expected to double and reach to reach 11 billion passengers in 2030 (source ACI)

> 68 million

Lost & stolen travel documents in Interpol database in June 2016

> 700 million

Over 700 million ePassports in circulation in 2016

Main objectives of our customers today

- > Build a unified and secure border management system public services and administrations can count on at all times
- > Lay the foundation of an integrated system to merge and streamline layers of disparate processes into a complete, cohesive and secure system
- > Implement a future-proof, mission critical system flexible and scalable enough to keep up with the demands of changing immigration policy and technological standards while guaranteeing uninterrupted operation, due to online/offline availability
- > Harness the latest technologies to confirm identity using document verification, biometrics in combination with control list checks and risk assessment across all BCPs
- > Reduce costs by automating and optimizing processes while leveraging technologies to strengthen security and provide convenience for passengers

Key benefits of Gemalto Border Management

Consistent control at all border control points

Gemalto solutions support all border control types (border gates, eGates, suitcases, handhelds, etc.) for air, land and sea borders and mobile checkpoints. Our customers can implement a consistent framework to secure borders by enabling the same checks and functionality for all border control stations.

In addition, mission critical data such as alerts and control list are available in real time within the system with Gemalto's automated synchronization of information between inspection clients, local and HQ servers. Immigration officer's decisions are supported by information immediately available across all border points no matter where it was first captured. This kind of cohesive and homogeneous approach prevents the vulnerability of any single point in the system.

Flexibility and scalability to meet changing needs

- > To meet the issuing authority's current and future needs, the suite provides a high degree of flexibility for the customization of workflows and access control.
- > New border control points of any type can be added progressively, at the customer's discretion and according to needs and priorities.

Full operational control for border authorities

Border authorities can adjust the level and type of checks, criteria for alerts and quality requirements, as well as the specific available services and its underlying workflows using a single, centrally available administration application. This eliminates the need for costly development or customization, safeguarding confidential information. It also empowers border control authorities to adapt quickly to new requirements and threats, without necessarily involving the vendor.

Hardware agnostic

All solutions are built hardware-agnostic to ensure independence from past or future suppliers. Especially, our solution will protect our customers from vendor lock in in the field of biometrics and travel document scanners.

Decision support and intelligence sharing

Data mined at the various border control points are compiled into a single entry/exit system (EES) crucial to enhancing border control and intelligence sharing and forecasting border transit flow. Statistics and reports provide invaluable decision support to drive tourism and prioritize national investment efforts. Facilitated information sharing with the Visa Information System and other national and international systems—such as that of Interpol—substantially mitigates risk stemming from granting unauthorized access to the country.

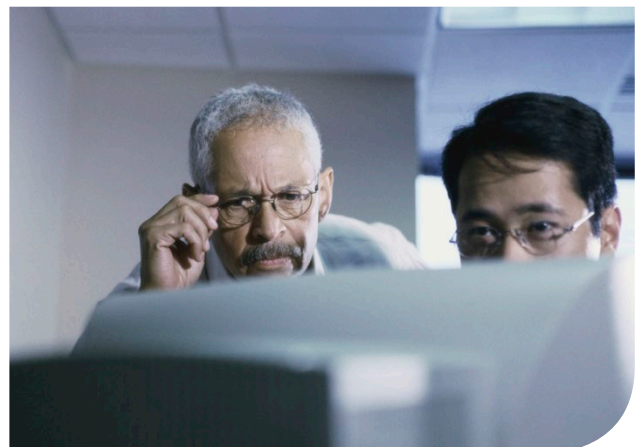
Built-in Security - privacy and protection

Information security is built-in at all levels of our border management system, ensuring the protection and privacy of all sensitive information during data acquisition, data handling, data communication, data storage (at BCPs, HQ, back-up and DR sites) and data deletion.

Uninterrupted service for mission-critical systems

Homeland security solutions are mission-critical systems that must be fully operational at all times, even in the event of interrupted connection. That is why data are securely stored temporarily, in local AES 256 encrypted containers, to make relevant data and control lists available locally for offline verification. All data are synchronized and updated automatically as soon as the systems come back online.

The high-availability back-end system features clustered application server and database as well as automated failover to backup and disaster recovery sites. This guarantees the security of the entire system, with up-to-date information at all times and no impact whatsoever on border control operations.



What Coesys Border Management delivers

Border Management Operations



Convenience for travelers and authorities alike with faster, more secure border operations

- > Automated travel document identification and verification against a centrally administered document repository
- > Biometric data capture with quality assurance
- > Biometric traveler verification (1:1) and identification (1:N)
- > Integration with the national Visa Information System (N-VIS) for Visa status check and verification of Visa Document and biometric Identity confirmation(1:1)
- > Automated comparison of identity against text-based and biometric control/alert lists
- > Entry Exit System (EES) with visa overstayer and advanced transit alarm logic
- > Automated entry/exit card recognition
- > Automated Border Control (ABC) gates, deployed with or without Registered Traveler Program (RTP)

Coesys Border Management improves border intelligence for detection and prevention

- > **Better Information Sharing:** Consolidation of data collected at BCPs in a central EES and/or unique traveler database
- > **Better intelligence:** Use of Advanced Passenger Information (API) for risk assessment and automation of external system queries and national and international control lists via i.e. through, for instance, Interpol's I-24/7 global police communications and MIND/FIND integrated search solutions
- > **Better Exchange:** Real-time Information sharing with all connected BCPs and Production of customizable reports and business intelligence data for border

- authorities and other government agencies, such as customs, airport authorities and visitor bureaus
- > **Better Adoption:** Central management of the level of alert and types of checks from HQ, with logic and alerts pushed to all BCPs to cascade a consistent approach to developing threats throughout the organization

Coesys Border Management supports your immigration organization

- > Granular identity and access management for operators through central user, role, workstation, site, service, workflow management with defined access rules and strong identification mechanisms
- > Monitoring of border resources such as fixed workstations and mobile units for load balancing and optimized allocation

TOP 3 benefits our customers most appreciate

- > Consistent control at all border points at all times
- > Compilation of a traveler database fully compliant with privacy requirements to strengthen risk assessment
- > Ability in the long-term to take ownership of a solution fully suited to their needs and offering customizable security, verification actions and checks with a wide choice of hardware (document and biometric scanner), middleware and infrastructure platforms

Experience and services for an end-to-end solution

Mobilize our experienced service teams to support you. Our expertise and best practices—derived from our involvement in more than 80 national government programs—will be key assets for the success of your project.

Gemalto professional services to benefit from:

- > Experience-based solution design
- > Rigorous project management
- > Fast and seamless system integration
- > Efficient deployment
- > Complete knowledge transfer
- > Operation support
- > Operated services

Together as one

In April 2013, Gemalto joined forces with Avalon Biometrics, consolidating the group's position in border management, visa management and document verification.

Each company brings unique expertise to the travel market segment. Gemalto's strength lies in secure document expertise and its solid international footprint, while Avalon Biometrics' core competencies span software and platforms for border management, visa management and document verification.

The two companies have been working together for many years. As one entity under the Gemalto name, they have now set out long-range plans and objectives.



France

In 2016, Paris Aéroport selected Gemalto to provide 87 ABC gates to allow passengers to save time on departure and arrival

in Paris Charles de Gaulle and Paris Orly airports. The Coesys ABC eGates provide passengers with a fast and secure passage through immigration, relying on a fully automated verification of the electronic passport and on biometric traveler authentication. Border protection officers can monitor the information in real-time for increased detection of potential fraud cases.



Ghana

In 2013, Ghana entrusted Gemalto with its immigration system, central to the eGhana project—an ambitious plan to create a modern IT infrastructure that can support sustainable development in the years to come.



Croatia

At the end of 2010, Gemalto was chosen to upgrade Croatia's border control system with Coesys Document Verification and a full mobile version of Coesys Border Management system to run in biometric handheld devices.



South Africa

South Africa's Department of Home Affairs turned to Gemalto to implement its Refugee and National Deportation system, which was implemented in two phases and completed in 2008.



Ten e-gates are in use at the Kotoka International Airport in Accra, the capital of Ghana, as part of its current redevelopment. The e- Gate automatically scans traveler's passports and allow them access as part of immigration processes at the airport.

Gabon



In 2016 Gabon's Department of Homeland Security DGDJ selected Gemalto to supply and implement a fully integrated border and visa management system. The new scheme

will strengthen national security, improve operational efficiency and enhance the traveling experience for people entering and leaving the Central African state.

The visa management system simplifies and speeds the issuance of visas, e-Visas and resident's permits. This suite of applications was used to create Gabon's e-Visa portal service in July 2015 enabling visitors to use the Internet to apply for a visa to enter the country. Once the Electronic Travel Authorization (ETA) is delivered, the visa is issued at Libreville International Airport upon arrival.

The solution is built around the centralized, back-office Coesys Visa and Border Management System. This supports automation of queries to databases - such as Interpol's - that alert authorities to potential threats and risks. In addition, the Automated Border Control kiosks now offer travelers rapid, 'self-service' passport checks at the country's main airport which handles around one million passengers annually.

The Border Intelligence module uses the data mined at the border. It offers investigation tools for discovering new risk patterns, with a highly intuitive "clicking" process. Its reporting app also provides valuable information to drive tourism and prioritize national investment efforts.



Self-service kiosks are now in use at Libreville International Airport

Expertise under a single roof

With the acquisition in 2005 of Setec—formerly Finland's National Printing House—Gemalto has a background in secure government printing dating back to 1886. Our printing expertise includes banknotes, stamps and identity documents. Gemalto has produced millions of conventional and electronic identity cards, passports, driver's licenses and healthcare cards, working closely with law enforcement and border authorities to develop security features and document design.

As the leading provider of electronic documents worldwide—over 40 ePassport programs and over 40 eID initiatives to date—Gemalto is uniquely positioned to offer you the most suitable border control solution, for all travel document types.

In addition, Gemalto actively contributes to the work of standardization bodies and organizations such as the International Organization for Standardization (ISO), American Association of Motor Vehicle Administrators (AAMVA) and International Civil Aviation Organization (ICAO). Gemalto actively supports the ICAO TRaveler Identification Program (TRIP). We believe the comprehensive approach to security promoted by TRIP is essential to develop a more secure framework for documents and identification-related systems.

In April 2013, Gemalto joined forces with Avalon Biometrics, consolidating the group's position in document verification.

Government programs very often requires partners with industrial strength and skills. Gemalto's global presence is key to the way we serve governments and authorities, with 17 manufacturing sites and 31 personalization facilities and expertise centers strategically spread across every continent. Beyond this, it's our 14,000+ employees of some 106 nationalities who make the difference.



Expertise in biometrics

Biometric technology has quickly gained ground as the fastest, most reliable way to identify individuals through authentication by means of unique biological characteristics. Today many travel document and immigrant visa programs incorporate biometrics. Gemalto has developed these technologies in many countries, primarily for applications such as those designed to capture and manage travelers' digital fingerprints and photograph. Gemalto's hardware-agnostic solutions offer true independence and choice.

About Gemalto

Gemalto is the world leader in digital security with 2015 revenues of €3.12 billion. In the public sector, Gemalto provides secure documents, robust identity solutions and services for governments, national printers and integrators in the service of citizens. Its products and solutions are deployed in more than 100 government programs worldwide.

Gemalto contributes to more than 40 ePassport programs with specialized expertise in border and visa management projects. The company contributes to major eHealthcare programs and numerous eDriver license and vehicle registration projects. Gemalto also collaborates with its clients to report and share best practices from around the world.