Coesys ABC (Automated Border Control)

Where security, convenience and efficiency meet

Security and speed, cost-efficiency and convenience have long represented conflicting goals for border control authorities. Coesys Automated Border Control reconciles these aims, opening the door to secure and seamless passenger processing.
Immigration authorities and airports now face a series of critical challenges

Air traffic has soared, and the trend is set to continue. Over the next 20 years, the number of air passengers will double. From a simple point of passage to enter or leave a country, airports have evolved into sophisticated leisure, retail and business centers.

Whether departing, arriving, or in transit, travelers are becoming more demanding. Convenience, speed and intuitive technologies are all high on their list of priorities. Security threats are now global - and evolving every day. National borders are strategic transit points where the highest standards of control must be implemented to protect passengers and citizens alike.

Coesys Automated Border Control (ABC) and Automated Passport Control (APC) is a range of automated immigration control products that combine the latest technologies of electronic gate and kiosk hardwares and border control software. They provide a fast and secure solution for airports and border authorities, as well as a user friendly experience for travelers.
Key benefits of Coesys ABC

Slash queues with smarter, faster processes
Coesys ABC and APC software allows faster border crossing per passenger. With Coesys ABC gates and APC kiosks, a traveler can be through a border in a matter of seconds, making it one of the most efficient technologies on the market.

To further improve border crossing time, our solution has been carefully designed to be intuitive and user friendly. As a result, all passengers can effortlessly use our technology, first time and every time.

> With our multi-camera wall, the gate begins processing biometrics as soon as the passenger steps in. The cameras are located in the exit door, right in front of the passenger. Digital mirrors are placed next to the cameras, instinctively attracting eyes in the correct direction for successful image capture. This allows the passenger to pass through the gate intuitively, minimizing the risk of human error and associated time loss.

> The use of abstract or figurative pictograms, compliant with ISO 7001 and ISO 9196, as well as the adaptation of existing airport symbols, break down language barriers and increases daily traffic through the eGate lanes.

Ensure secure crossings
Coesys ABC benefits from our document verification expertise to detect fraud with high quality checks on the electronic chip authenticity, data, document security features and photo / data integrity.

Our biometric verification software (facial, fingerprint or a combination of both), with live quality assurance checks and globally-recognized matching engines, ensures the passenger is the rightful owner of the document.

Risk assessment is then performed through automated comparison of identity against text-based and biometric control/alert lists.

Our unique Single Person Detection system identifies intrusion, passenger substitution, piggyback and tailgating. It also discriminates passenger and luggage in any situation.

The use of transparent material eases visual control through the gates, whilst improving the passenger experience.

“Future proof” hardware
To meet the challenge of increasing traffic whilst still adhering to financial constraints, it is crucial for airports and border control authorities to implement durable, low maintenance solutions. We have therefore selected field tested materials that meet the demanding requirements of transportation applications including subways, trains and boarding gates. With the benefits of seamless preventive maintenance, our solution has the best Machine Cycle Before Failure (MCBF) rate on the market.

As a result, it saves on maintenance and replacement costs to quickly deliver financial payback.

The camera wall features no motorized systems or mechanical parts, increasing dramatically the Mean Time Before Failure (MTBF) rate of the overall solution.

Scalability and agility to meet individual needs
Providing a flexible and space saving solution is essential for any airport installation. To optimize both floor usage and cost efficiency, our eGates can be configured in lanes. Furthermore, in less than four hours, including testing, operators can easily remove or add a gate to existing lanes to cope with fluctuations in passenger flow at departure or arrival.

When space constraints are too high, APC kiosks can provide a good alternative to eGates.
Build on the expertise of border control personnel

With Coesys ABC, authorized border personnel can securely modify the document verification process, adding documents or adapting procedures to counter the latest fraud techniques. Forensic experts can also use our administration tool as part of their methodology, allowing eGate document verification systems to benefit from their unique field experience. No other solution gives this level of autonomy and control.

Flexibility to keep pace with future evolutions

Reflecting the fact that border control technologies are evolving fast, our solution is able to cope with new generations of travel documents, biometrics, Registered Traveler Programs (RTP) and much more. Additionally, it can connect with a Visa Management System, and take a step closer to a fully integrated Border Management System.

The three key benefits our clients value most for our ABC gates

Our Document Verification Solution: A centrally administered tool that puts border personnel in control

All updates can be managed from one central post, and automatically delivered in the field.

Border guards can add new travel documents to the eligible list, and add or modify verification actions.

Our Single Person Detection System: A suite of sensors and software to detect intrusion and fraud

- Time of flight camera, and infrared and thermal sensors.
- Side and front presence, detecting piggyback and tail gating, and passengers crouching under or jumping over the barriers.

Our Multi Camera Wall: Fast and robust

- Passengers look intuitively towards the camera; images are captured on-the-fly with live quality assurance and fast matching results.
- The absence of mechanical parts ensures a more robust system.
## What Coesys ABC delivers

### Automated Border Control

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### Coesys ABC offers convenience for passengers, airports and authorities alike with fully automated, fast and secure border operations

- Automated travel document identification [nationality, type] and verification [electronic chip, security features etc]
- On-the-fly facial verification, including portrait capture with multi-camera wall and live quality assurance
- Fingerprint capture, quality assurance and authentication
- Automated comparison of identity against text-based and biometric control/alert lists

### Coesys ABC offers a unique Single Person Detection system for intrusion detection in the gate:

- Movement analysis and movement direction
- Detecting side and front presence
- Detecting inanimate objects
- Segregating passenger and luggage [all configurations]
- Detecting piggyback and tailgating
- Detecting passengers crouching under or jumping over the barriers

### Coesys ABC interfaces with Coesys Border Management or Customer Legacy Systems for better detection and information sharing

- Better intelligence: use of Advanced Passenger Information [API] for risk assessment and automation of external system queries and national and international control lists via INTERPOL MIND / FIND, for example
- Better information sharing: consolidation of data collected at the gates in a central entry/exit system [EES] and/or unique traveler database

### Coesys ABC monitoring station supports effective eGates supervision

- Allowing an officer to react in the case of emergency, misbehavior, technical alarms or fraud suspicions

### Coesys ABC/APC software supports your immigration organization

- Featuring CCTV streams, status of the gates and process flow
- Logging all events in the gate, in accordance with relevant national regulations
- Focusing on real-time assessment of passenger behavior
- Monitoring screen language, functions and layout are customized to match individual cultures and immigration business processes

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## Document Verification Administration Module provides potential to expand eligibility criteria [e.g. add a nationality]

## Production of customizable reports for officers to improve control and throughput performance

## Production of customizable reports and statistics for border authorities and other government agencies, such as customs and airport authorities

## Detailed identity and access management for operators through central user and role management with defined access rules and strong identification mechanisms

## Nationals holding an ePassport [ICAO compliant BAC, EAC or SAC]

## Foreigners, of specifically designated nationality, holding an ePassport [ICAO compliant BAC, EAC or SAC]

## Frequent travelers that have been pre-registered and pre-vetted [RTP mode]

## Combination of the above

## The system can adopt new eligibility criteria over time

## Can adapt to national programs, as well as VIP programs within airports
Experience and services for an end-to-end solution

Gemalto’s experienced service teams are on hand to support you. Our expertise and best practices, derived from direct involvement in over 100 national government programs, will be key assets in the success of your project.

With Gemalto’s professional services capabilities, you benefit from:

- Experience-based solution design with:
  - Audit of airport layout and legacy system
  - Written recommendations in accordance with Frontex and ICAO guidelines
  - Design driven by operational and passenger experience considerations, together with relevant national safety rules / regulations
- Stringent project management, including coordination with all stakeholders (border authorities, airport security, airlines, etc)
- Fast and seamless system integration
- Efficient deployment
- Complete knowledge transfer
- Operational support from our worldwide network for fast and effective results

Ghana

In 2013, Ghana entrusted Gemalto with its eImmigration system, which is central to the eGhana project—an ambitious plan to create a modern IT infrastructure that can support sustainable development in the years ahead. Gemalto is delivering ten of the latest generation Coesys ABC eGates, offering two-step integration, modern design, unique single person detection, fast and secure document verification and on-the-fly facial recognition by camera wall. The eGates are connected to Coesys Border Management to ensure risk assessment and transit information consolidation. The eligible population is pre-registered and pre-vetted passengers of any nationality.

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.

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.

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 is contributing to more than 40 ePassport programs and border and visa management projects. The company is active in major eHealthcare schemes and numerous e-driving license and vehicle registration projects. Gemalto also collaborates with its clients to report and share best practices from around the world.