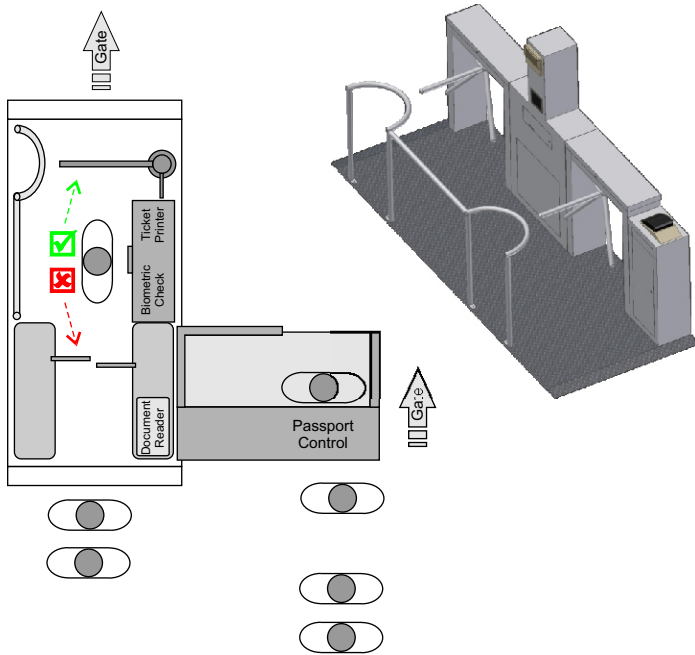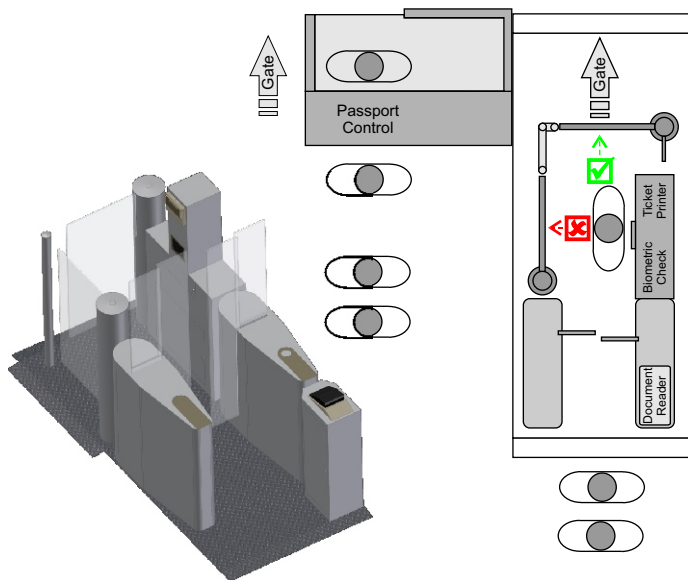# eGate - Automated Border Crossing Gate

two-door eGate

three-door eGate

The market volume for biometric technologies increased in the last year and is projected by IBG to grow from US$ 2.1b in 2006 to US$ 5.7b in 2010. As an outcome of several terror attacks, legally powered by the US Patriot Act as well as European Council Regulation, biometric identification became a normal, daily used technology.

Additionally to the above mentioned reasons for the increase in biometric technology, one should think of our world as a place where travelling to several countries is possible in a few hours, globalization is on its way and the international air traffic is steadily growing. All these changes indicate the need for more efficient and reliable border control solutions to assure a secure way of travelling for the passenger on the one hand and the immigration staff at international airports and border crossings on the other hand.

Our effort contains the integration of new technologies into already existing processes and infrastructures without causing more work for immigration and border staff during their daily work. As a result, our technology allows travellers to cross the border without any loss of time.

ID Travel offers customizable eGate solutions on a broad range. The software supports two-door-solutions as well as three-door-solutions of eGates. Every biometric technology can be integrated and also multi-biometric solutions are possible.
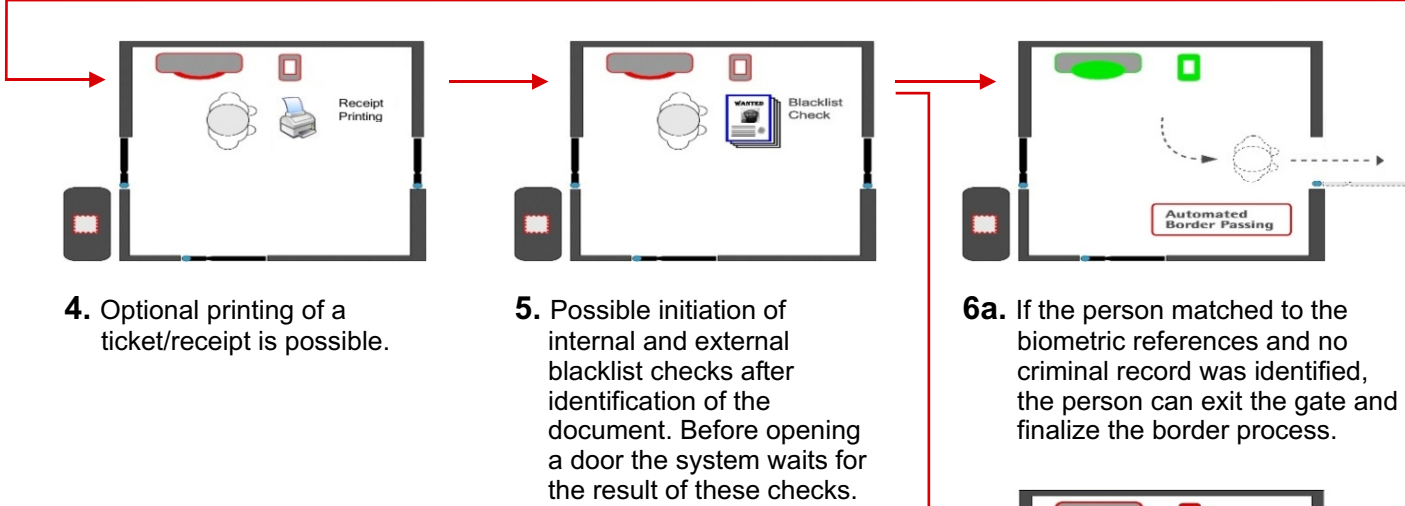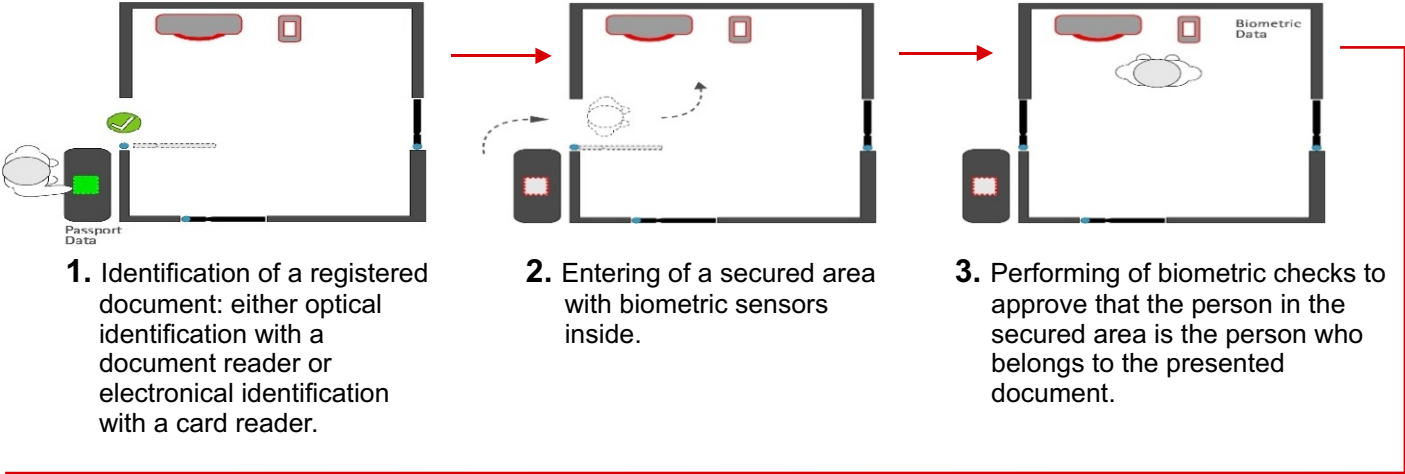
Already integrated biometrics are
● Iris recognition,
● Face recognition and
● Fingerprint recognition

Hardware interfaces support a great many of turnstiles, gates, document- and electronic data readers and user guidance systems.

For integrated solutions ID Travel also provides data capturing and electronic border control systems (to support the officers during their daily work) for new electronic passports and ID-Cards.

iD TRAVEL

1. Identification of a registered document: either optical identification with a document reader or electronical identification with a card reader.

2. Entering of a secured area with biometric sensors inside.

3. Performing of biometric checks to approve that the person in the secured area is the person who belongs to the presented document.

4. Optional printing of a ticket/receipt is possible.

5. Possible initiation of internal and external blacklist checks after identification of the document. Before opening a door the system waits for the result of these checks.

6a. If the person matched to the biometric references and no criminal record was identified, the person can exit the gate and finalize the border process.

6b. Did the person not match to the biometric references or was identified as a criminal, further actions in response to national security alarm process are initiated.

A detailed screen displays all results, the actual state of the process and the state of all components to the officer.
It is possible for the officer to intervene into the process and control every door manually.
Alarm-, error- or warning messages are displayed clearly and indicate appropriate action recommendations.
The system also offers the possibility to display live video pictures from several cameras on the screen.
The program surface is optimized for usage with touch-screens.
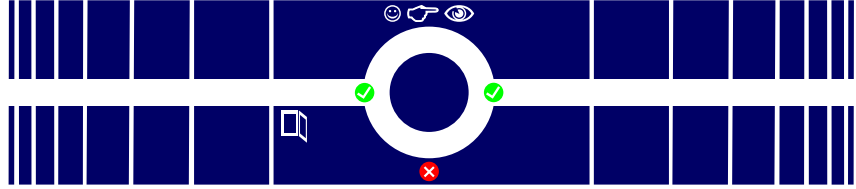
¿ Procedure description

Identification of the document can be done in several ways.

- Optical reading with a document scanner (e.g. Passport, ID-Card …) or
- Electronical reading of RFID chips (e.g. Frequent Flyer Card, premium program card, …) or
- Electronical reading of contact smart cards (e.g. Frequent Flyer Card, premium program card, …).

We would recommend optical reading of passport or ID-Card with electronical reading of a RFID chip as an option. With this procedure the operator of the gate can be sure that the traveller carries a valid travel document when crossing the border.
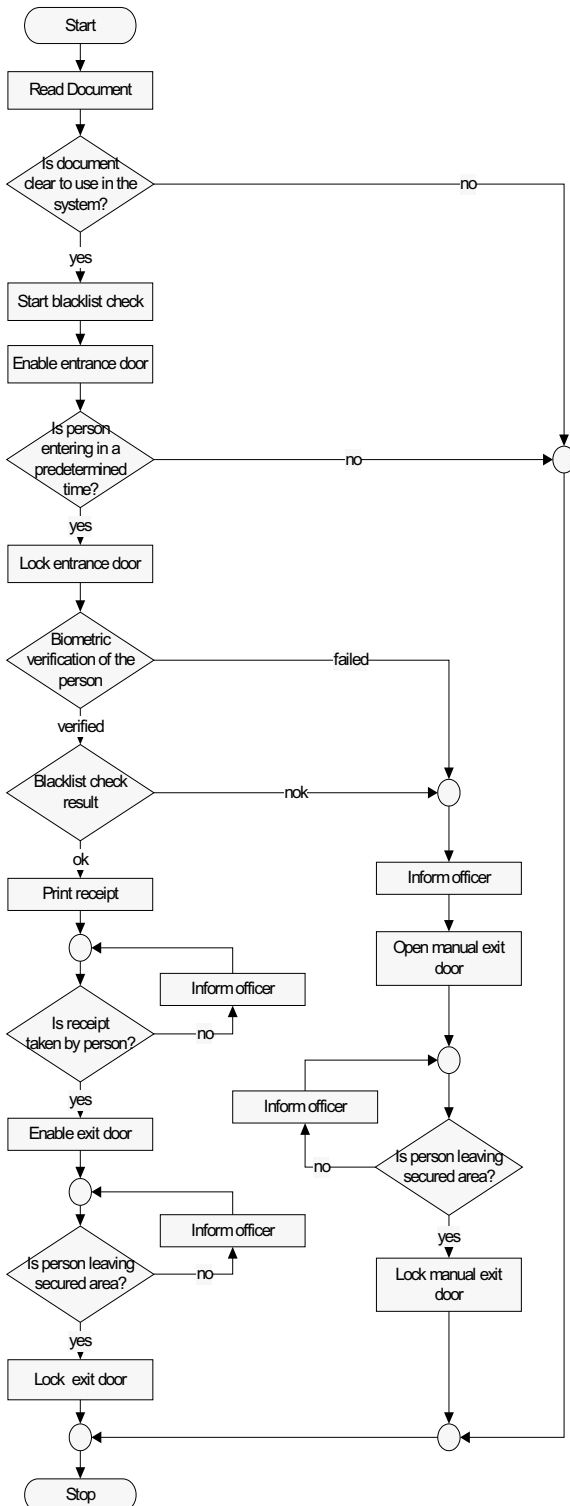
After the document number and nationality have been read, the system will check the database if the relevant document is registered and not suspended.
Depending on the system setup the system will retrieve the biometrical data from the document or from the database. Afterwards the entry door is enabled and the system prompts the person to enter the secured area.
The whole process is interrupted by the system if the person does not enter the secured area during a predetermined time. As soon as the person enters the secured area, the system activates the biometrical verification. Throughout a predetermined time and/or a limit of trials the person now has to verify his/her biometric data with the data read in the first step. The system works independently of vendors and other biometric systems like fingerprint, face- or iris-recognition. The products are individually integrated into the process according to the customers' requirements. In case verification fails, an officer is given notice and the door to the manual border inspection is enabled automatically. The person is asked to leave the secured area to the manual border inspection. Leaving the secured area is also checked and reported.

During the entering and verification process a check with external databases is realized (e.g. FBI, Inpol / SIS …). If the result of this blacklist checks is not clear the person also has to leave to the manual border inspection. The officer is informed about the detailed results of the whole process.

Another system configuration with only two doors is also possible. The person will be directed backwards to the entry door if biometrical verification fails or will be hold in the secured area until an officer unlocks one door manually.
If biometrical verification and blacklist check is accepted, the person is asked to leave the secured area.

At a separated station, only visible for the officials, it is possible to overview all process related information and, if necessary, to interrupt the automatic process at any time. All doors will be locked until one door is manually enabled by an officer.
To reactivate the automatic process the secured area needs to be empty.

Optional it is also possible to print a ticket for the traveller. The exit door only opens when the person takes the ticket.

In case of any failure and/or any false action of the person, e.g. no biometrical information available, not leaving the secured area or not taking the ticket, the system will inform an officer who might help the person in the secured area after a predetermined time. Once the process is carried out correctly by the person, the automatic process continues.
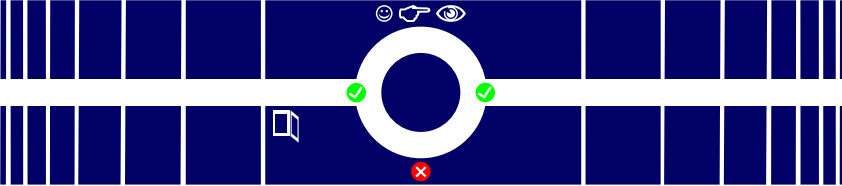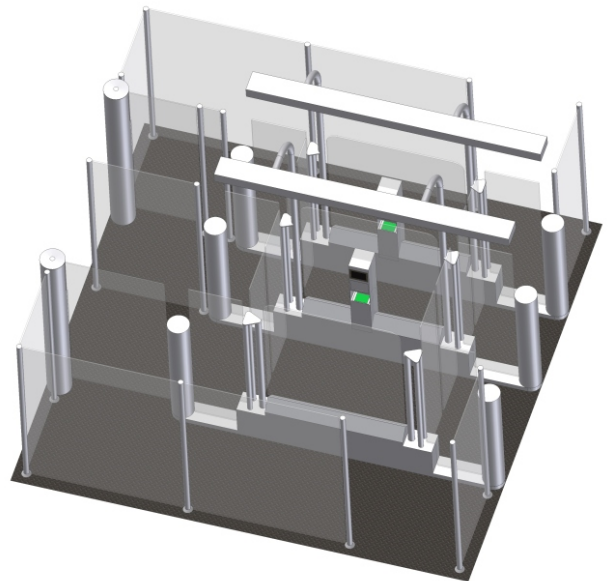
A lot of new vendors with different techniques, algorithms and devices enter the biometric market. Only experts are able to separate the best combination out of vendors, products and technologies and to offer solutions that surely satisfy the customers' needs. In responding to the recent worldwide activities in the electronic travel document area a group of international known experts out of the areas: Biometric, ID Documents, Security Technology, Border Crossing Applications and Access Control has founded the company ID Travel AG with headquarters in Oberwil, Switzerland. So this allows ID Travel´s experts to give their experience and know how to everyone.

ID Travel AG develops customized solutions for identification and verification.
Within only a couple of weeks, ID Travel AG was awarded for projects in the military and finance market segment. The guideline: "Simple customer and user oriented solutions" describes the competitive advantage of ID Travel AG. The Swiss company acts like an interface between customer requirements and technology vendors and helps, as a neutral partner, in integration of products and development of customized solutions. Furthermore ID Travel AG provides complete services from planning to roll-out.

All Software parts of ID Development are full .NET 2.0 applications and are based on a modular architecture to integrate any combination of biometric traits, sensors and algorithms to support existing business processes.

The broad range of software applications and the knowledge of the biometrical- and security market enables ID Travel to sell holistic solutions for many different environments and process flows.

- Pic2Pass (automatic data capture module for face pictures)
- eCapture (data capturing for ePassports and other biometric documents)
- eGate (automated border crossing solution)
- eBorder (electronical border control solutions for biometrical ePassports)
- eAccess (biometrical access control)
- etc.

Transportation Security   Laboratory Security   Infrastructure Security   Public Safety and Justice   Border Control   Data Center Security   Time and Attendance

Presented from: