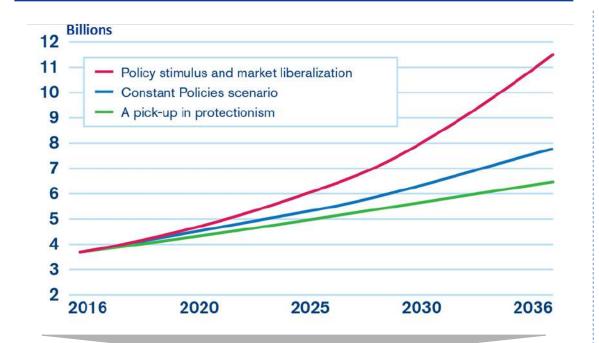


Border Control: New Challenges

- In a world, where globalization has risen dramatically, international traffic raises many concerns regarding illegal immigration, high crime rates and terrorist threats, in addition to the efficiency of the border crossing.
- The challenge of any Border Control System is to address those increasing problems by strengthening security at borders, facilitating passenger processing while respecting the societal values and citizens' rights.

Continued increase in traffic*



Increasing Threats



Facilitate passenger processing while Improving passenger experience

Strengthen security at borders through anticipation and data analytics



New Challenge: Strengthen Security at Borders

Key drivers

- Recent Security Events
- Terrorist threats and attacks worldwide
- Migrant Crisis
- Border as the frontline to ensure nation's security
- Fight against trafficking, illegal immigration

Contribution of new technologies

Biometric identification data becomes central in border controls

- Promoted by the acceleration of national programs integrating biometrics (ePassport, eVisas)
- Driven by a better acceptance of biometrics by citizens
- Biometrics fusion lowers FRR / FAR and improves authentication reliability



The strong integration of border control infrastructures and their interoperability will become more widespread

- Need to have a national view of real-time credentials
- International cooperation (between countries, countries / agencies, ...) will be critical in the ability of nations to detect risk profiles



The upstream control of passenger data will develop for an individualized risk analysis before the border crossing

- Increased confidence / interest in Data analytics technologies
- Focus on data collection, analysis, storage, dissemination
 - Improved security level of controls, passenger processing time





Strengthening Security at Borders: The Upstream Control of Passenger Data

Leverage on Big Data to increase Nation's Protection

Agencies are facing a complex environment •

- High increase of the number of travelers worldwide
- Governmental budget under pressure
- New level of threats that are difficult to detect

Create value from the rich data available

- Passenger Name Record/API
- Immigration and VISAS systems
- International Watch-Lists
- National ID systems
- Criminal Databases

- Early anticipation of any potential risk
- Automatic detection of atypical behaviors
- Focus border resources on value added tasks
- Improve Quality of Service



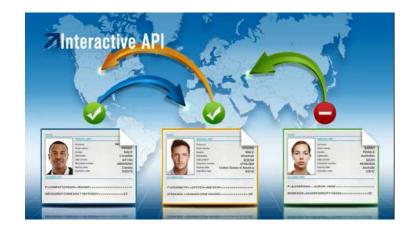


Strengthening Security at Borders: Exploiting Existing Data

Retrieve information prior arrival within the country

Different levels of information can be retrieve according to the system deployed:

- Advance Passenger Information System (APIS): The flight manifest with the list of passengers attending a flight is sent to the airport of arrival. It enables reconciliation of passengers controlled with expected passengers.
- Advance Passenger Processing (APP): This service performs an online pre-clearing passenger before boarding an airplane by the receiving country, which can grant or reject each passenger.
- Passenger Name Record (PNR): The PNR offers more information on travellers prior arrival for intelligence activities such as travelers itinerary, accompanying passenger, booking information.



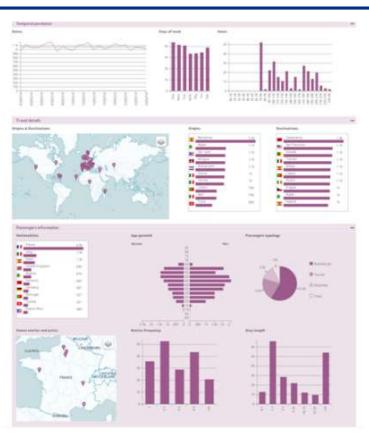




1

Strengthening Security at Borders: Risk Analysis-A Tool For Anticipating

Big Data analytics



Example of features:

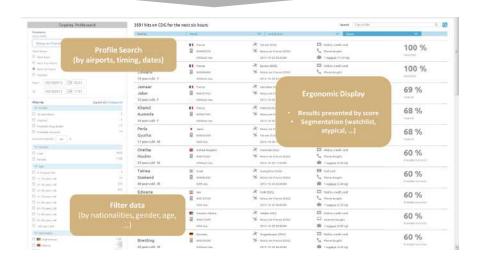
- Allocate resources based on number of arrivals, gender, origins
- Assess agent performance
 - If too fast potential negligence
 - If too slow training needed

Identify risk profiles



Automatic / Manual rules setting

Detailed Information per Candidate





New Challenge: Facilitating Passenger Processing and Improve Passenger Experience



Key Drivers

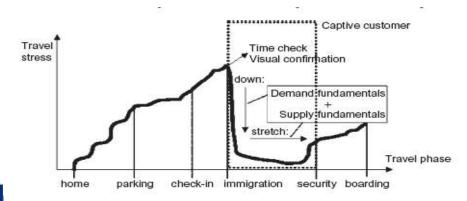
Increasing number of people travelling

- Air traveler are set to grow over the next years
- Other point of crossing have similar requirement (land, port)
- Full biometric journey OneID concept

Increased adoption of e-documents

The passengers are Stressed:

- 45%: of transit time
- 25%: of the queuing time
- 20%: Running to the boarding gate
- 7%: Passengers who missed a flight



Contribution of new technologies

Automation of controls gets stronger and a second generation of Automatic Border Control (Kiosk) will be put in place

- Passenger habituation phase which now considers this type of automation as "normal"
- Kiosks (North American model) can further improve the flow of travelers while keeping the human in the loop (or not)
- Initiatives in France are starting on Kiosks

Improve passenger experience:

- make border crossing smoother and provide a seamless passenger journey through the increase usage of biometrics
- IATA recommends the generalization of Biometric (single token) and Big data to improve the whole of the traveling route

The focus should be on security controls, border controls and baggage deposits, which are among the situations generating the most negative emotions









2

Front End: A Complete Array of Control Solutions

The objective is to improve the PASSENGER EXPERIENCE by drastically decrease the time needed to cross border as well as increasing the LEVEL OF SECURITY

Friendly

eGates

Real time Supervision Module

Compliant to ICAO and PARAFE (France)

Integration with Third part systems and infrastructure

Possibility to combine multiple systems

User

Information

guidance Screen

Common Document Reader: Passport (standard and electronic), Visa, Boarding Pass (Paper or Smartphone)

Multiple biometrics: Face / Finger / Iris

Panic Button



Integrated Interphone

Piggybacking / Tailgating and **lost object** detection

Active protection of the gate through security sensors / Passive protection thanks to the choice of material

The control of identity is performed automatically through biometric identification

Kiosks









The passenger can perform autonomously the first level of control and finish his control in front of an immigration agent



Toward One ID: Improving The Passenger Experience

With the continuous increased number of passenger forecasted, airport operators need to enhance the quality of service by proposing a seamless passenger journey

Use our biometrics as the token to pass all the different steps inside the airport

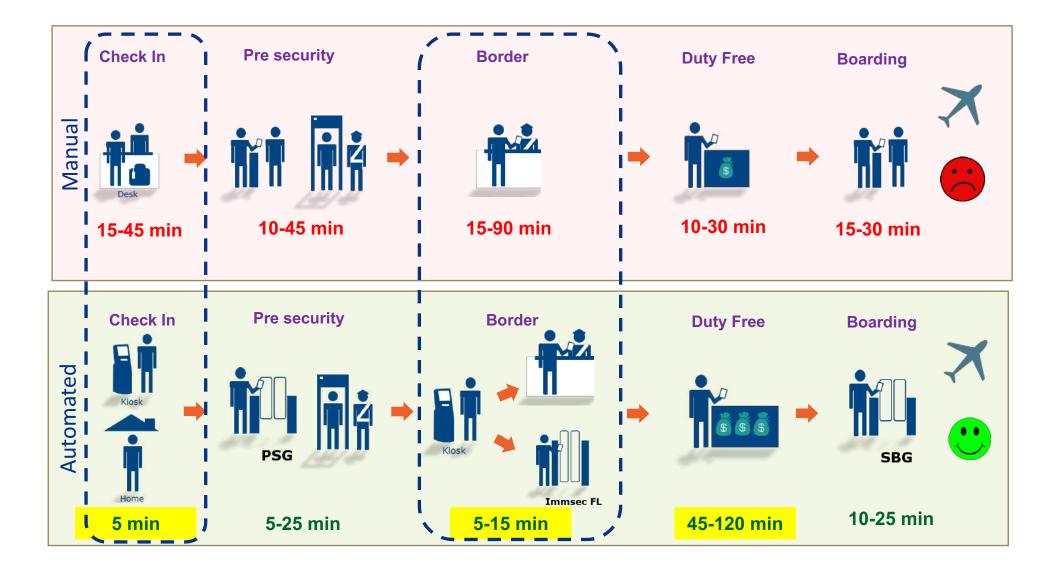


Objective is to propose a fast and convenient solution maximizing passenger throughput while ensuring a high level of security through the use of biometrics





Toward One ID: Manual vs Automated Processing





Toward One ID: Digital Identity

One ID
Digital ID
generation



Mr Paul Martin launches the application INWallet on my smartphone and follows the indications to put it in communication (without contact) with his passport.



Mr Paul Martin confirms that he is the owner of the passport by a facial biometric verification



Mr Paul Martin enters the code of his digital identity on his smartphone

Option to access online services



Mr. Paul Martin's OneID digital identity is generated and accessible on his INWallet application

One ID



Mr Paul Martin can manage his Check in from his OneID digital identity directly online or via a Kiosk at the airport



Mr Paul Martin identifies himself from his digital identity OneID for the removal of his luggages



Mr Paul Martin passes the presecurity with his digital identity OneID



Mr Paul Martin can access the lounge thanks to his OneID digital identity



Mr Paul Martin can identify himself at the time of boarding thanks to his digital identity OneID



The OneID digital identity can be derived from current Electronic Passport or eID with Travel functionality and tomorrow from the Digital Travel Credential

Smart Border Management: Ensuring National Security While Improving Passenger Flows



Seamless Traveler journey









Visa issuance

- Traveler enrolment
- Submission of visa

Entry Control

- Primary inspection
- Secondary inspection
- Interconnection with key stakeholders

Identity Control

- Inland Identity control
- Stay period control

Exit Control

- Primary inspection
- Secondary inspection
- Interconnection with key stakeholders

Secure National Management









Risk Analysis

- Vetting of visa application

Entry Exit system

- Archive all entries movement at national level
- Immigration management
- Interconnection with key stakeholders databases

Database Consultation

- Entry Exit, Visa, ABIS, watchlists
- Overstayer detection
- Biometric identification

Entry Exit system

- Archive all entries movement at national level
- Immigration management
- Interconnection with key stakeholders databases



