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1 INTRODUCTION

Promoting automated border solutions globally

With international travel and the exchange of goods constantly growing, increasing throughput capacity is vital for border control authorities, airlines and airport operators. New technologies can be used not only to increase security but also to enhance convenience, e.g. to reduce queuing time at border control.

An Automated Border Control (ABC) system can improve the management and control of travel flows at the border by reinforcing checks while speeding up border crossing of regular travelers. This can enable border guards to cope with the ever-rising number of border crossing without compromising security. Some Governments have even suggested that security is enhanced because additional border officers' resources can be focused on potentially higher risk travelers.

The rapid increase in the number of electronic machine readable travel documents (eMRTD) containing biometric data facilitates innovative automation concepts and enables integrated secure processes at borders that rely on machine-assisted control.

2 OBJECTIVES AND SCOPE

The first implementations of ABC systems started in 2005. In 2012 IATA saw the need to pro-actively promote ABC solutions aiming at improving border crossing in support of passenger growth. IATA's field offices collect information on deployments, mobilize and engage local stakeholders (primarily governments), industry experts and strategic partners. IATA is the unique source of information for ABC deployments worldwide.

2.1 Enhance information on existing ABC deployments

In the early days of ABC, fingerprint and iris were considered more secure than facial recognition. The technological gap has closed considerably and any of the three may be preferred in different parts of the world. In recent years, many governments are allowing citizens from other countries to use their ABC system and therefore the need to implement multimodal e-Gates to support a range of biometric options. The campaign served the purpose to validate and enhance existing information.

2.2 Promote automated border solutions

Many countries have yet to deploy automated border control solutions. Based on the success of the “first-movers”, it is worth sharing with other countries the long-term benefits that automated border solutions can bring to all stakeholders involved: aircraft operators, airports, governments and ultimately the passengers.
3 CAMPAIGN SCOPE AND METHODOLOGY

3.1 Methodology

The campaign was launched through a live webcast broadcasted to all local and regional offices involved. It consisted of two streams:

Stream 1 – validate existing deployments at airports

 Validate information for airports with existing deployments, and provide updates or missing information (if applicable):
- Name of the automated system (if applicable)
- Location in the airport (Arrival, Departure, Transit)
- In which Terminal(s) the automated systems are deployed
- Who is eligible to use the automated system (countries/nationalities)
- Is there a need to enroll or can an eMRTD be used without enrollment
- Biometrics used (face, fingerprint, iris, other)
- Usage:
  - Number of passengers that used the automated system in 2014 and/or
  - % of passengers that used the automated system compared to manual border crossing
- Proof of implementation (link to press release, pictures, etc.)

Stream 2 – promote ABC with governments that have not yet deployed

 Approach governments and promote ABC solutions. Stakeholders were provided a package containing documents and materials on the benefits of automated border control:
- Generic ABC presentation
- ABC Implementation Guide 1st Edition
- Case Studies (Canada, Indonesia, Portugal, and United Kingdom)

 Identify new deployments, if any

For both streams, information was captured using online surveys. Local and regional offices were involved in contacting stakeholders and collecting data.

The online survey was kept open from June to August 2015.

Passenger Experience Managers performed weekly quality checks to ensure on-time completion.
3.2 Scope and Completion Rate

Scope

Stream 1 - 150 airports with existing implementations in 52 countries.

Stream 2 - 76 governments where ABCs are not available.

ABC Campaign Response Rate

<table>
<thead>
<tr>
<th>Region</th>
<th>Stream 1</th>
<th>Stream 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>20%</td>
<td>13%</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>100%</td>
<td>88%</td>
</tr>
<tr>
<td>Europe</td>
<td>65%</td>
<td>100%</td>
</tr>
<tr>
<td>MENA</td>
<td>100%</td>
<td>94%</td>
</tr>
<tr>
<td>LATAM</td>
<td>100%</td>
<td>96%</td>
</tr>
<tr>
<td>North America</td>
<td>100%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Graph showing the response rates for different regions.
## 4 KEY RESULTS

<table>
<thead>
<tr>
<th>Types of ABC systems</th>
<th>48% of ABC solutions worldwide are based registration. 35% on electronic machine-readable travel document (e-MRTD) at 35%.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Implementations</td>
<td>33% increase in the number of countries were ABCs were identified (15 additional countries) from 2014 to 2015. Similarly, an increase in number of airports where ABCs have been identified (27%). 63 additional ABC deployments identified.</td>
</tr>
<tr>
<td>Location of ABC systems</td>
<td>53% of ABC systems are present on Arrival, 34% are found on both Arrival and Departure, while 10% have them on Departure (most likely to be US Preclearance).</td>
</tr>
<tr>
<td>Biometrics</td>
<td>42% use face, 37% use fingerprint and 14% use both. The remaining 7% are either iris, or a combination of face, fingerprint and iris.</td>
</tr>
<tr>
<td>Eligibility</td>
<td>83% of ABC systems are based on multilateral agreements therefore allowing multiple nationalities to use the gates/kiosks. The remaining 17% only allow Nationals and permanent residents for the time being.</td>
</tr>
<tr>
<td>Usage</td>
<td>Those countries that were amongst the first ones implementing automated border control systems have a usage of 23% up to 46%.</td>
</tr>
</tbody>
</table>
5 DETAILED RESULTS

5.1 Automated Border Control Deployments Worldwide

5.1.1 Interactive Map

An interactive map has been developed to keep track of implementations globally:

Source: http://www.iata.org/whatwedo/stb/maps/Pages/automated-border-control.aspx
5.1.2 ABC Solution Types

Various types of ABC solutions exist:

- Registered Traveler Program (RTP)\(^1\)
  
  - Also known as trusted traveler scheme, it facilitates entry of low-risk, registered travelers at port of entry, typically by allowing members to access dedicated lanes for expedited processing through immigration, customs and agriculture. In turn, border agencies can better allocate their resources to focus on unknown, potentially higher risk travelers.

- Automated border control gates / kiosks
  
  - Utilizes electronic machine-readable travel documents (e-MRTDs). They may operate on the basis of e-Passports alone but may also use e-ID cards and e-Residence permits as tokens when considering entry or exit.

- Automated Passport Control (APC)\(^2\)
  
  - Automated Passport Control (APC) is a U.S. Customs and Border Protection (CBP) program that expedites the entry process for U.S., Canadian and eligible Visa Waiver Program international travelers by providing an automated process through CBP’s Primary Inspection area. Travelers use self-service kiosks to submit their Customs declaration form and biographic information. APC is a free service, does not require pre-registration or membership, and maintains the highest levels of protection when it comes to the handling of personal data or information. Travelers using APC experience shorter wait times, less congestion, and faster processing.

- Mobile Passport Control (MPC)\(^3\)
  
  - Mobile Passport Control (MPC) is an authorized U.S. Customs and Border Protection (CBP) smartphone or tablet app that expedites the entry process for U.S. citizens and Canadian visitors by providing an automated process through the CBP Primary Inspection area. The app enables travelers with a smartphone or tablet to submit their passport information and customs declaration form as well as upload a self-photo prior to CBP inspection.

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North America and Europe have the most ABCs across their airports. The following graph shows that the most common type is based on registration (48%) followed by e-MRTDs (35%).

The reason why ABCs based on registration have the highest number is due to global entry program\(^4\) found in 59 locations worldwide.

Multiple types of ABC solutions exist in each region. There were 63 additional ABCs identified through the campaign.

Below chart shows an increasing trend in the number of airports deploying ABC solutions across all regions from 2014-2015.

### 5.2 Location

53% of ABC solutions are present on arrival, 34% are found on both arrival and departure, while 10% have them on departure (most likely to be US Preclearance).
5.3 Biometrics

42% use face, 37% use fingerprint and 14% use both. The remaining 7% are either iris, or a combination of face, fingerprint and iris.

![Biometrics Chart]

5.4 Eligibility

200 ABC solutions are based on multilateral agreements therefore allowing multiple nationalities to use the gates or kiosks. The remaining 42 only allow nationals and permanent residents for the time being. Since 2014, there has been an increasing trend towards multilateral agreements.

![Eligibility Chart]
8 governments have plans to further expand eligibility to use their ABC systems to other nationalities:

- Bahrain
- Mexico
- Portugal
- Republic of Korea
- Saudi Arabia
- Singapore
- Republic of Korea
- United Arab Emirates
- United Kingdom

### 5.5 Usage

Those countries that were amongst the first ones implementing ABC systems have seen a steady increase in usage. Over the years, passengers became more familiar with ABC’s system and the global passenger survey\(^5\) shows that 90% of passengers are very satisfied using the e-Gates.

![Average ABC Usage](chart.png)

The success of an ABC scheme relies on passenger awareness. Airports, governments and airlines all have a role of informing passengers on the benefits, enrollment and eligibility requirements. For examples of promotion refer to the ABC Implementation Guide:

\[http://www.iata.org/whatwedo/passenger/pages/passenger-facilitation.aspx\]

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\(^5\) The Global passenger survey is an annual, independent survey conducted by IATA to understand passenger preferences and behavior throughout their journey
5.6 Barriers to Implementation

Governments who have not implemented ABCs said that the main barriers to implementation remains to be cost, lack of information on the benefits, low passenger volume, and legislation.

The next section shows how IATA can assist governments in some of the abovementioned obstacles to implementation.

6 NEXT STEPS

- Continuous promotion of the benefits of automated border control solutions.
- Provide the basis for implementation through guidance material and case studies.
- Facilitate implementation by pairing of governments, airports and airlines.
- Collect and publish trends and marketing data.
- Follow-up on existing implementations that have plans to expand eligibility.
- Follow-up on governments who have expressed interest on new deployments.