IATA GLOBAL AIRPORT & PASSENGER SYMPOSIUM

Warsaw, Poland
15 - 17 October 2019

Building Capacity for the Future
Seamless Journey
BIOMETRIC RECOGNITION OFFERS A NEW TRAVELING EXPERIENCE

Sponsored by: Vision-Box

Aaron Beeson, Director Business Solutions, Vision Box
Christian Draeger, Vice President Customer Experience, Star Alliance
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MODERATORS: Anne-Marie Pellerin, Managing Partner, LAM LAH

Pathway - The Seamless Journey
BIOMETRIC RECOGNITION OFFERS A NEW TRAVELING EXPERIENCE

WEDNESDAY 16 OCTOBER 2019
Before.
After.
Biometric Recognition Opportunities

IATA GAPS 2019

- Higher Throughput
- Lower Operational Cost
- Security
Deployment Approaches

- SINGLE AIRPORT
- GROUP / SINGLE AIRLINE
- INTEROPERABLE SYSTEMS
- VENDOR/OPERATOR-DRIVEN
- MULTI-MODAL
Biometric Recognition Offers a New Travel Experience
Cohesive Vision

Identity as a Service

• Operation Efficiency
• Security Effectiveness
• Passenger Satisfaction
• Industry Vitality
WHY IT WORKS

• Uses existing traveler biometrics
• Matches one-to-few in the cloud
• Enables token-less processing
• Integrates into airport infrastructure
• Trusted source for identity verification
• No traveler enrollment required
COMMITTED PARTNERS

Baltimore Washington International Airport
City of Austin Aviation Department
Dallas Fort Worth
George Bush Intercontinental Airport
Greater Orlando Airport Authority
Hillsborough County Aviation Authority – Tampa
Hobby International Airport
John F Kennedy International Airport
Los Angeles World Airports (LAWA)
Massport
McCarren International Airport
Metropolitan Washington Airports Authority
Miami Dade Aviation Department
Newark Liberty International Airport

Denver International Airport
Ontario International Airport Authority
Philadelphia International Airport
Salt Lake City
San Antonio
San Francisco International Airport
San Jose International Airport
Seattle Tacoma International Airport
Broward County Aviation Department
Chicago O’Hare

All Nippon Airways
Delta
Spirit Airlines
British Airways
• Automatic Capture
• Family Processing
• Single Touch
• Reduced Data Entry
<table>
<thead>
<tr>
<th>AIR EXIT</th>
<th>AIR ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>39,025 exit flights processed</td>
<td>182,418 entry flights processed</td>
</tr>
<tr>
<td>5.69 M exit passengers</td>
<td>14.55 M entry passengers</td>
</tr>
<tr>
<td>98.2% biometric match rate</td>
<td>99.0% biometric match rate</td>
</tr>
</tbody>
</table>
Limited retention of facial images
- US citizen photos deleted after 12 hours
- Retention of Photos by stakeholder partners restricted by CBP business rules

Enhanced security measures
- Data encryption both in transit and at rest
- Device access restricted to authorized personnel
- Biometric templates separated from biographic data, associated only with a unique ID

Biometric performance
- System developed using diverse training sets and limits gallery to flight manifest
- Proactive monitoring of biometric algorithm performance to identify deficiencies
- Partnership with NIST and DHS S&T to continually evaluate algorithms and best practices

THIS IS NOT A SURVEILLANCE PROGRAM
JOIN US FOR COFFEE BREAK IN THE EXHIBIT HALL
NEXT GENERATION OF BORDER CONTROL PROCESS: YOUR DIGITAL VISA IN A CLICK

Andres Hirshfeld, Director of Facilitation and Security, United Airlines
Alan Murray Hayden, Head of Timatic, IATA
Nesan Jegasothy, Senior Product Manager – Border, SITA
Simon Watkin, Border Security and Identity Policy, UK Home Office

MODERATORS: Celine Canu, Head, Aviation Facilitation, IATA
Frictionless, Secure, High Capacity Biometric Borders

16th October 2019

By: Nesan Jegasothy, Senior Product Manager
What do we mean by frictionless?

Airports

Car rental

Hotel
Why do we need high capacity, frictionless borders?

- Passenger numbers to increase to 8.2 billion by 2037
- Airport capacity increased by 5% vs 2018
- Cruise passengers to increase by 48% by 2027
- Special events
Leveraging the technology of today?
What do the passengers say?

- 36% willing to use biometrics instead of passport or boarding pass
- 25% Passport
- 21% Bag Drop
- 14% Check-In
- 12% Boarding
- 11% Bag Tag
- 9% Booking

Level of self-service implemented
% of passenger having negative emotions (stress)
Leveraging the available information

Biometric & biographic, traveler submitted

Biographic PNR, iAPI & API, operator submitted

Pre cleared, Priority processing

High risk

Unknown risk

Low risk
What can governments do to make this a reality?

ETA, eVisa and Travel Authorization

Electronic Landing Forms
Stakeholders and Trust

Global Passenger Data and Identity Management Trust Framework

Trust Providers

Airlines

Airports

Governments

Consumers

Travel and Tourism

SITA
Thank you
JOIN US FOR LUNCH IN THE EXHIBIT HALL
BORDER SECURITY: HOW DO GOVERNMENTS USE DATA FOR RISK ASSESSMENT

Sponsored by: IDEMIA

Discussion Panel 1:
Sebastien Colmant, Development Manager, Security, IATA
Cristian Fanelli, AIRCOP Law Enforcement Analyst, United Nations Office on Drugs and Crime

Discussion Panel 2:
Pedro Alves, Vice-President Global Sales Passenger Facilitation and Border Control, Idemia
Justin Ikura, Deputy Director Passport Program Policy, Admissibility – Immigration, Refugees and Citizenship Canada/Government of Canada

Pathway - The Seamless Journey
The ICAO Digital Travel Credential

Justin Ikura
Vice Chair, ICAO New Technologies Working Group

Warsaw/November 2019
Presentation Overview

• The ICAO New Technologies Working Group
  – The Digital Travel Credential (DTC) Sub-Group
• The ePassport
• The DTC concept explained
• How can a DTC impact travel – including border control?
The ICAO New Technologies Working Group (NTWG)

- Develops and updates travel document technical specifications for existing and emerging travel document technologies.

- The ICAO NTWG is comprised of both State officials and members of the International Organization for Standardization (ISO).
  - State officials provide the working group with areas of study based on national policy agendas and experiences with document production, issuance and control.
  - ISO members provide technical expertise and develop technical specifications based on instruction from the working group.
The Digital Travel Credentials (DTC) Sub-Group

- The ICAO Traveler Identification Program (TRIP) recognizes and is continually working to address the following pressures:
  - Growing passenger numbers
  - Limited physical infrastructure
  - Enhanced security requirements
  - Aging/legacy processes and systems

- These pressures have generated incredible innovation from government and industry; however, these responses lack consistency, and can create unpredictability across the traveler’s experience.

- As a result, the ICAO NTWG established a specialized sub-group (led by New Zealand), the NTWG DTC Sub-Group, to develop technical specifications and define international policy for the digital travel credential.
ePassport/Biometric Passport Primer

• Approximately 135 ICAO Member States issue ePassports; 69 States participate in the ICAO Public Key Directory.

• The ePassport contains digitized identity information, including two mandatory elements (i.e. DG1 and DG2).

• Data can be authenticated and used to support passenger (e.g. facial matching, watchlist checking, etc.)
What did we effectively want to achieve and why?

- Passport data is used by a range of actors in the travel continuum:
  - **Immigration authorities** to issue travel authorizations (e.g. electronic authorities, visas, etc.)
  - **Transport Ministries or agencies** to support identity management and aviation security.
  - **Air industry** to fulfill transporter obligations and manage travelers.
  - **Border control** to pre-screen travelers, identify lost/stolen books and identify travelers.

- The principle objective of the DTC Sub-Group was to make this data accessible without physical presentation of the passport.
Key Parameters of Our Work

• Creating a globally-interoperable solution.

• Drawing from the security principles of the ePassport; any solution had to be at least as secure as the ePassport.

• Maintaining compatibility with document control/inspection systems (i.e. Public Key Director and INTERPOL Stolen and Lost Travel Document Database)

• Effectively responding to the needs of States and aviation stakeholders to reduce “friction”/traveler pain-points in the system.

• Building on the momentum and global deployment of ePassport issuance.
High-Level Explanation

• The sub-group has determined that a DTC could be created in two ways: as a derivative of the ePassport (i.e. extracted data); and/or issued in parallel to or in replacement of a physical ePassport.

• The DTC would contain the facial image, the holder’s personal details, and the security features to support authentication.

• All generations of the DTC will be backwards compatible.
Pulled from a [Physical] Passport

- **Digital copy + physical book:** Data is extracted from the physical ePassport; holder must carry the physical travel document as back-up.

- Data extraction can be done today; however:
  - To be useful, data must stored in a mobile and globally interoperable container; and
  - Like an ePassport, data should be authenticated before it can be applied.

- Once the data is authenticated, the DTC can be trusted to support passenger identification (i.e. biographic checks and facial matching).
Pulled from a Passport Record (v1)

- **Digitally signed copy + physical book:** Data is extracted from the issuer database and digitally signed by the issuing authority; the DTC digital container is the primary back-up, physical book is an alternate back-up.

- Difference between generation 1 and generation 2 is the active role of the issuing authority to issue and secure the digital container.

- Beginning to look at medium- to long-term solutions.
Pulled from a Passport Record (v2)

- **Issued DTC; no physical book:** Passport authority issues a digitally signed DTC; the smart device serves as the fall-back.

- The “physical” book is replaced by a digital container, which may be queried to determine whether traveler holds the original source of data.

- This is the long-term solution.
What Considerations Limit DTC Use?

• Current passenger data exchange systems are limited to biographic data.
  – DTCs would have to flow to a state border agency.
• State privacy frameworks are built around existing passenger data exchange
• DTC authentication is key before using the data.
• DTC will only include the traveler’s identity travel document information
  – Other pertinent data (e.g. visas) are not included in the DTC
Impacts of the DTC on Travel

Border Control and Immigration:
• Improved identity validation
• Improved data quality (e.g., less traveler data errors and cases of intentional data manipulation)
• Enhanced pre-arrival screening (passport is reviewed, authenticated and validated prior to arrival)
• Reduced congestion at border control
• Border officer resources redirected to high-risk travelers
• Enhanced client experience

Airports:
• Unique touchless client experience (e.g., repetitive “pain points” eliminated)
• Improved connection times
• Reduced congestion
• Enhanced client experience

Airlines:
• Improved identity validation
• Improved data quality (e.g., less passenger info errors)
• Opportunity to remove document/boarding pass presentation
• Reduced malfeasance (e.g., boarding pass swapping)
• Staffing efficiencies or redirected resources
• Enhanced client experience
THANK YOU
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POS Aviation

Pathway - The Seamless Journey
BUILDING A SEAMLESS PASSENGER JOURNEY FOR PASSENGERS WITH REDUCED MOBILITY AND DISABILITIES

David Brennan, Assistant Director Cargo Safety and Standards, IATA
Rosalie Crabbe, Manager of Accessible Programs and Regulatory Compliance, United Airlines
Lorne Mackenzie, Director, Westjet
Laurel van Horn, Director of Program, Open Door Organization

MODERATORS: Roberto Castiglioni, Director, Reduced Mobility Rights Limited

Pathway - The Seamless Journey
JOIN US FOR A COCKTAIL RECEPTION IN THE EXHIBIT HALL AT 18:30