6th World Passenger Symposium
18 - 20 October 2016
Dubai - UAE
Host Airline
Emirates
World Passenger Symposium

18 – 20 October 2016

JW Marriott Marquis – Dubai, UAE
One Identity
Secured Facilitation and Passenger Tracing

Christine Riveau
VP Business Development | Secure Mobility
Safran Identity & Security
WHAT IS AT STAKE FOR AIRLINES?
ON TIME DEPARTURE:
WHERE ARE MY CUSTOMERS?

EXPEDITED BOARDING:
COST SAVING
MAINTAIN HIGH LEVEL OF CUSTOMER RELATIONSHIP WHILE ENSURING IDENTITY VERIFICATION:

FROM BOARDING CONTROL TO BOARDING SERVICE
SERVICE SEGMENTATION TO ENSURE PASSENGER LOYALTY
BIOMETRICS OFFERS ENDLESS POSSIBILITIES

EFFICIENCY

SECURITY

FACILITATION
2

CHANGI AIRPORT

A WORLD FIRST
CHANGI AIRPORT HAS CHOSEN SAFRAN IDENTITY & SECURITY FACIAL RECOGNITION SYSTEM (BEING DEPLOYED AT NEW T4)

- Best matching engine
- Most ergonomic & reliable face capture
- Fully integrated airport design language
- Traceability of passenger process across multiple touchpoints
STEP 1 – BIOMETRICS SELF ENROLLMENT

ESTABLISH LIVE TRAVELER VS DECLARED IDENTITY

3D FACE CAPTURE

INNOVATION
HOW DOES IT WORK

BIOMETRICS SELF ENROLLMENT

1. BCBP READ

2. PSP READ

3. BIOMETRIC ACQUISITION (FACE)

4. PSP: LIVE BIOMETRIC MATCHING
   • PRINT BAG TAG
   • ASSOCIATE TAG TO PAX

5. UNIQUE PAX IDENTIFIER

✓ Valid Flight
✓ Valid PSP
✓ Valid PAX
✓ Valid Bag
✓ Valid Record
STEP 2 – BIOMETRIC ELIGIBILITY CONTROL TO SECURITY AREA

DETERMINE SAME TRAVELER ACROSS THE PROCESS

PHOTO OF THE DAY
LIVE MATCHING
STEP 2BIS – BIOMETRIC BORDER CONTROL

ESTABLISH TRAVELER IS LOW RISK AND CAN CROSS BORDER

COMMON AVIATION SECURITY & IMMIGRATION GATEWAY
HOW DOES IT WORK

1. **BCBP READ**
   - Valid Flight

2. **PSP READ**
   - Valid PSP

3. **RETRIEVE UNIQUE PAX IDENTIFIER**

4. **BIOMETRIC ACQUISITION (FACE)**

5. **LIVE BIOMETRIC MATCHING 1:2**
   - Valid PAX

6. **BIOMETRIC ACQUISITION (FP)**

7. **DB: LIVE BIOMETRIC MATCHING**

8. **IMMIGRATION CONTROL**
   - Valid Citizen
   - Valid Exit

9. **UPDATE UNIQUE PAX IDENTIFIER**
   - Valid Record

**BIOMETRIC ELIGIBILITY CONTROL TO SECURITY AREA**

**2BIS**

**BIOMETRIC BORDER CONTROL**
STEP 3 – BIOMETRIC BOARDING

DETERMINE TRAVELER’S RIGHT TO BOARD

BIOMETRIC PASSENGER MANIFEST
HOW DOES IT WORK

1. BCBP READ
2. RETRIEVE UNIQUE PAX IDENTIFIER
3. BIOMETRIC ACQUISITION (FACE)
4. LIVE BIOMETRIC MATCHING 1:3
5. BOARD / NO BOARD DCS
6. UPDATE UNIQUE PAX IDENTIFIER

✓ Valid Flight
✓ Valid PAX
✓ Valid Board
✓ Valid Record

BIOMETRIC BOARDING
BENEFITS FOR OPERATORS, AUTHORITIES & PASSENGERS

ENHANCE CUSTOMER RELATIONSHIP

LESS WAIT TIME WITH USER FRIENDLY CONTROLS

SECURED IDENTIFICATION FROM END TO END

KNOWLEDGE AND CERTAINTY
**KPI - SYSTEM PERFORMANCE**

- Availability 24/7
  - QoS 99%

- FAR manual ≈ 20%
  - FRR manual ≤ 1%

- FAR system ≈ 3%
  - FRR system ≤ 1%

- Expanding group of eligible travelers

**KPI - TOUCH POINTS**

- **Self Bag Drop**
  - ✓ No additional time for identity verification
  - ✓ Anticipated 1: xx manpower

- **Access / Border combined gateway**
  - ✓ 1 queue instead of 2
  - ✓ 20 sec process time
  - ✓ Anticipated 1:4 manpower
  - ✓ Access control process time is “free”

- **Self Boarding**
  - ✓ 4-5 sec
  - ✓ Identity control process time is “free”
  - ✓ Anticipated 1:2 manpower
3

TAILORED SOLUTIONS FOR SEAMLESS TRAVEL EXPERIENCE & INCREASED AIRLINE EFFICIENCY
KNOWN TRAVELER

MOBILE PRE CLEARANCE

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EXTENDED AUTOMATED CONTROL

SELF SERVICE
TRUSTED
CONTROL
IMPROVING THE PROCESS FOR THOSE WHO CANNOT BE FULLY AUTOMATED
EXCEPTIONS & INTERCESSIONS

FIELD AGENT: FOCUS & SERVICE
SEAMLESS IDENTIFICATION

NON COLLABORATIVE
PERSONS OF INTEREST
TARGETING
PROCESS & ANALYTICS

OPERATIONAL PROCESS CONTROL

MorphoPass
OUR DIGITAL TRAVELER SOLUTIONS

KNOWN TRAVELLER APPLICATION

AUTOMATED CONTROL POINTS

FAMILY / GROUP PROCESSING

EXCEPTIONS & INTERCEPTIONS

SEAMLESS IDENTIFICATION

PROCESS & ANALYTICS
ONE Identity: A New Concept for a Friction Free Passenger Process

Harvey Tate
Digital Transformation
IAG
Safety and security is the number one priority for all stakeholders in aviation.

The approach to achieve this is divided. Each stakeholder ensures their obligations are met with little or no coordination between parties.

The result is a frustrating and repetitive process for the customer.
The vision

A streamlined, friction-free process that (1) allows an individual to assert their identity online or in person to the required level, (2) keeps personal data private and (3) improves operational efficiency and security.
Managing identity

3 FACTORS

HUMAN

DIGITAL

PHYSICAL
Core Technology

- Hashing
- Digital signatures
- Distributed ledgers
IT'S JUST MATHS.

Unique output

Fixed length output

Cannot be reversed

Input

<table>
<thead>
<tr>
<th>Fox</th>
<th>Cryptographic hash function</th>
</tr>
</thead>
<tbody>
<tr>
<td>The red fox jumps over</td>
<td>Cryptographic hash function</td>
</tr>
<tr>
<td>the blue dog</td>
<td></td>
</tr>
<tr>
<td>The red fox jumps over</td>
<td>Cryptographic hash function</td>
</tr>
<tr>
<td>the blue dog</td>
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<td>Cryptographic hash function</td>
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<tr>
<td>the blue dog</td>
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Digest

<table>
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<tr>
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</table>

Digital signatures

**DEFINITION**
**DIGITAL SIGNATURE**

**SENDING MESSAGE**

<table>
<thead>
<tr>
<th>SENDER</th>
<th>SIGNED MESSAGE</th>
<th>SENDER PUBLIC KEY</th>
<th>HASH VALUE</th>
<th>RECIIVER</th>
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<tbody>
<tr>
<td>Alice</td>
<td>Alice’s private key</td>
<td>10010 01010</td>
<td>Alice’s public key</td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE**

- https://aqaailevelcomputing.wordpress.com/
- http://searchsecurity.techtarget.com/definition/digital-signature
Enrol

ID Assurance Level

Online enrol
Grant access with external services such as MNO, social, etc.

Interview
Organisation A
Manual identification & behavioural analysis

Biometric capture

One-way hash

Customer Identifier

Distributed Ledger

Digital Signature
Org A Private key

Customer Identifier

Store securely on phone
Verify

Authentication → Customer Identifier → One way hash → ID Assurance Level

Distributed Ledger → Verify with Org A Public key

Verification against external sources e.g. MNOs, social etc.

Biometric Verification → Organisation B

Organisation B

Behavioural
Its all about the customer
me.API

INDMIDUAL

Response
- ✅ MRZ data
- ✅ MNO shared signal e.g. lost/stolen
- ✅ Bank shared signal e.g. anomalous activity
- ✅ etc.

Request
- ✗ Biometric data
- ✗ Facebook profile

ORCHESTRATION

Request for access

ORGANISATION

World Passenger Symposium 2016
ONE Identity

Thank you

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Can We Achieve True Collaboration to Develop a One Secured and Seamless Integrated Process

Moderator:
- Pierre Charbonneau, Director Passenger-APCS, IATA

Panelists:
- Dann Dunn, Branch Manager, Global Initiatives, Office of Global Strategies, TSA
- Miguel Leitmann, CEO & Co-founder, Vision-Box
- Christine Riveau, VP Business Development | Secure Mobility, Safran Identity & Security
- Annet Steenbergen, Coordinator Happy Flow and Preclearance, The Government of Aruba
- Harvey Tate, Digital Transformation, IAG

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