Driving Competitive Advantage Through RFID in Baggage

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Moderator: Andrew Price, Head Global Baggage Operations, IATA

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Driving competitive advantage through RFID in baggage

Magali Collot
Project Manager, End to End Baggage, IATA
Resolution 753 on baggage tracking

The Baggage Journey

- Mandatory tracking points by June 2018
- Information sharing:
  Airlines should share tracking information with interline partners as needed.

A4A RESOLUTION #A4A30.53
IATA RESOLUTION #IATA753
Real time tracking is expected

84% Passengers want to know where their bags are at all times

56% Tracking throughout the entire bag journey

28% Tracking for additional services
Airlines are implementing

- Prioritize their implementations
- 100% IATA member airlines are aware of 753
- 78% are using various methods & technologies to collect tracking data
Where does RFID fit

IATA Board confirmed their intention to move forward with RFID

• Need for **real time tracking** of baggage

• Help the industry **improve end to end baggage tracking**

• Combines **reliability, maturity, worldwide availability and cost**
Benefits of RFID

- Improved end-to-end tracking: 25% fewer mishandled bags per year
- Improved aircraft loading/off loading: $14k saved per million bags in operational efficiencies
- Ease of adoption of Resolution 753: $25k saved per million bags in operational efficiencies
- Improved data consistency: >99% read rate
  - Durable, remote-reading and widely compatible

RFID uses radio frequency transfer data to track large numbers of baggage tags.
RFID

The new baseline for identifying bags
Driving Competitive Advantage Through RFID in Baggage

Albert Pozo
Chief Digital Officer, SATS Ltd.
Driving Competitive Advantage Through RFID

Albert Pozo
Chief Digital Officer
SATS At A Glance

We feed Asia by operating central kitchens to provide Inflight and Institutional catering. Our Gateway business connects with Asia with airfreight, apron, passenger and security services.

Based on FY2017-18 statistics for Singapore & overseas operations.
Why RFID?

- Cost Effective
- Enables traceability
- Easy to implement
RFID in SATS Cargo for Asset Tracking

- Improve productivity – ease of locating shipments (in bins) within the warehouse
SATS Tracer - RFID-based cargo solution

Origin

- Uplift
- Handover to Ramp
- Build Up
- Storage

Destination

- Arrival at destination
- Arrival at warehouse
- Delivery to agent/consignee

Arrival at warehouse

Build Up

Handover to Ramp

Uplift

Storage

Destination
Outcomes

• Customers have **visibility** of their shipment status, end-to-end

• **Scalability** to allow more shipment status tracking

• Potential new **revenue** generation for airlines
How about baggage?
Baggage Handling – The Good Old Days

Third Portion Bingo Record Card System

- Manual
- Time-consuming
- Lack of visibility and notifications
- Potential security breach
- Human errors
Current Baggage Handling with BRS

- Improve accuracy and reduce baggage mishandling
- Increase efficiency – reducing ICAO Annex 17 Offloading cycle time
- Enhance security

Since Year 2000
Bags are tracked at two key points:

1. Check In and Bag Drop
2. Security Screening
3. Sorting
4. Loading onto Baggage Trolleys/Containers
5. Towing to Aircraft
6. Loading on Aircraft
7. Offloading from Aircraft
8. Towing to Terminal
9. Sorting for Transfer/Arrival
10. Arrival Belt
RFID enabling seamless end-to-end baggage tracking
Desired outcomes

**Passengers**
- Enhance passenger experience
- Baggage tracking status pushed down to personal devices

**Airlines**
- Able to better track priority (HOT/VIP) bags
- More transparency and accuracy in proration of baggage mishandling costs across airlines

**Airport Authorities**
- Reduce baggage mishandling

**sats**
- Hands-free scanning
- Increase proactiveness in intervention to save and recover bags
- Increase efficiency by reducing ICAO Annex 17 Offloading cycle time
Collaboration among all parties is critical

- Setting up of tag reader network & system connectivity in the Baggage Sorting Area (BSA)
- Implement RFID enabled bag tag printing

- Adoption of RFID tags by all stations
- Define customer value proposition

- Incorporation of RFID infrastructure within Ground Support Equipment (GSE) for loose loading aircraft
- Training of staff
Thank You
Driving Competitive Advantage Through RFID in Baggage

Yngvar Sundsfjord
Chief Project Manager, COWI AS
Why RFID – opportunities
Case study with Avinor in Norway

Yngvar Sundsfjord
COWI
IATA Resolution 753

“RESOLVED that:
IATA members shall maintain an accurate inventory of baggage by monitoring the acquisition and delivery of baggage.”
AVINOR ACROSS THE WHOLE OF NORWAY

• 44 airports – varying greatly in size and volume of traffic

• Oslo Airport is the nucleus of Norwegian air traffic – and a hub for traffic between Norway and other countries

• Several hub airports in Norway with lot of domestic transfer traffic

• Passenger volumes 53 million in 2017

• Oslo Airport passenger volumes 27,5 million in 2017
Avinors approach with RFID and IATA 753 in mind

› Controlling the ECO system for 44 airports
› Issuing RFID bagtags at all airports
› Cost of upgrading existing BHS infrastructure less costly with RFID
› Turnaround times, resources
› Automation in focus using RFID
› New opportunities for capturing baggage data – tracking of baggage through the whole process ++
› Supporting Electronic baggage tags in the future
Avinor’s vision on the baggage quality in Norway

“To lose a bag in an Avinor airport in Norway shall be very difficult”
Where does RFID come into play?

- Automated Arrival scanning larger airports
- Image capture of each bag
- Smaller airports
- Support new electronic tags

- RFID solution + traditional scanning international arrival
- Camera + RFID
- RFID Portals
- RFID readers
Baggage processing – Projects and pilots

Baggage in Avinor

BRS
Baggage Reconciliation System
Offered as a service to Avinor partners Airlines/Handlers

BiA
Real time bag message distribution
Capture, store and share baggage data

ABAS
Automatic Baggage Arrival Scanning
Develop and introduce a solution for automatic scanning and registration of baggage

RFID
Tagging and reading
Avinor Common Use solutions at Norwegian Airports.
It has never been easier...

AVINOR
BiA – baggage information from multiple sources

CUSS

SBD/BAGS

ACUS

BHS

BSM

WorldTracer®

SIA

BRS

OSL COMMUNITY

amaDEUS

Avinor
### Bag tag search

**0117768654**

**Event date:**

17-10-2017 → 20-10-2017

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<td>RAMP</td>
<td>SVG</td>
<td></td>
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![Images of bag tag search results](AVINOR)
New toolbox

- **Airlines**
  - Value added information
  - DCS updates from BiA
  - Whole baggage journey (Avinor)
- **Handlers**
  - New decision tools
  - Operational benefits
  - SLA
- **Avinor and Avinor Airports**
  - SLA
  - New products
  - Statistical data
  - LEAN (process improvement)
- **Other**
  - The passenger
  - Insurance companies
  - Baggage transportation companies
One example

Offloading of bag from aircraft

› Image of bag on BRS scanner
› Loaded early/late bulk load
› Loading sequence in container
Avinor’s vision on the baggage quality in Norway

“To lose a bag in an Avinor airport in Norway shall be very difficult”

(We will at least know where it got lost ….)
THANK YOU!
Our Panel – RFID implementations

Challenges & Best Practices

Moderator
Andrew Price, Head Global Baggage Operations, IATA

Panelists
Albert Pozo, Chief Digital Officer, SATS
Yngvar Sundsfjord, Chief Project Manager, COWI
Networking Lunch
Sponsored by

Çelegibi
60 Years

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