Evolving Airlines & Airports through intelligent **baggage management**

RFID technology to improve travelers experience

www.hcltech.com

Introduction

The excitement of arriving at your destination is hampered when you wait at the carousel only to discover that for some reason your baggage is missing. Baggage losses result in disgruntled customers and tarnished reputations. Bag tracking is most effective when the complete journey is mapped and the bags are dropped at the check-in counter. Airlines and Airports have always collaborated to fulfil passenger facilitation, but now is the time for advance and intelligent baggage management to complement the touch-less travel experience.

Trends

An International Air Transport Association (IATA) study revealed that:

- A significant drop of 25% in mishandled bags using RFID technology is achievable by 2022
- Intelligent baggage tracking will improve overall customer experience

- Projection of industry-wide RFID technology adoption will lead to a significant drop in the cost of RFID tags and readers

- Mishandled bags per 1000 passengers can be reduced by **80%** with efficient tracking technologies
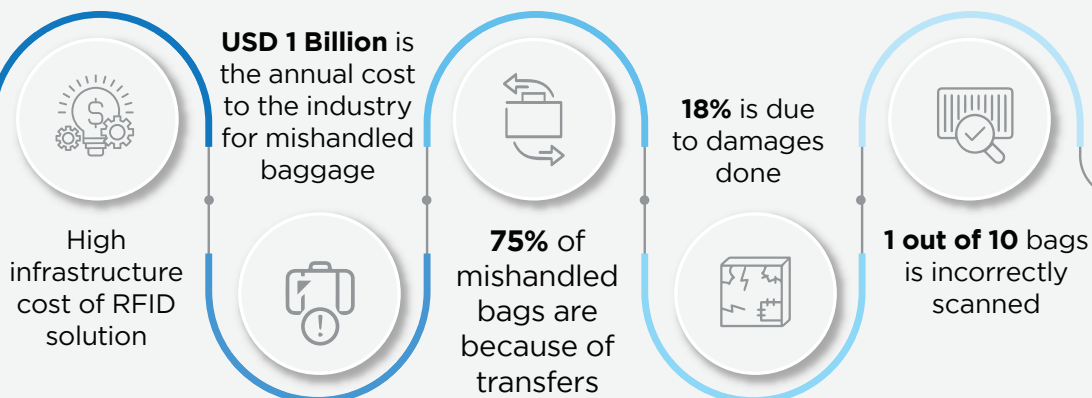- Advancement in technology and machine learning can bridge this **20%** gap

- Based on a survey, **64%** of passengers desired to track their baggage via a mobile app
- **63%** of passengers wanted to see a collection notification of their belongings on arrival

- **88%** of passengers are happy if they are reunited with their luggage within 10 minutes

Challenges

USD 1 Billion is the annual cost to the industry for mishandled baggage

High infrastructure cost of RFID solution

75% of mishandled bags are because of transfers

18% is due to damages done
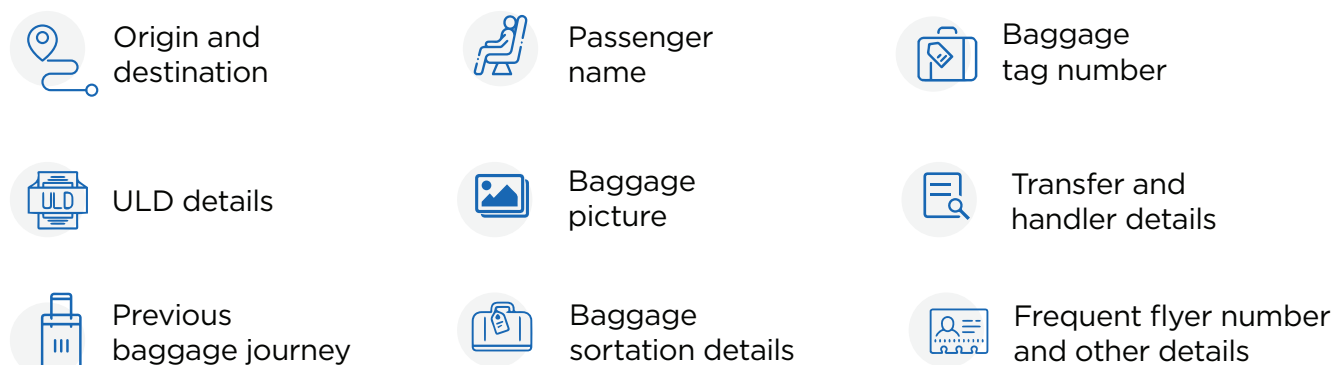
1 out of 10 bags is incorrectly scanned

As a part of the overall experience, Airlines and Airports need to go that extra mile when it comes to infrastructure and technology collaboration to ensure excellent passenger experience from both- Airlines and Airports.
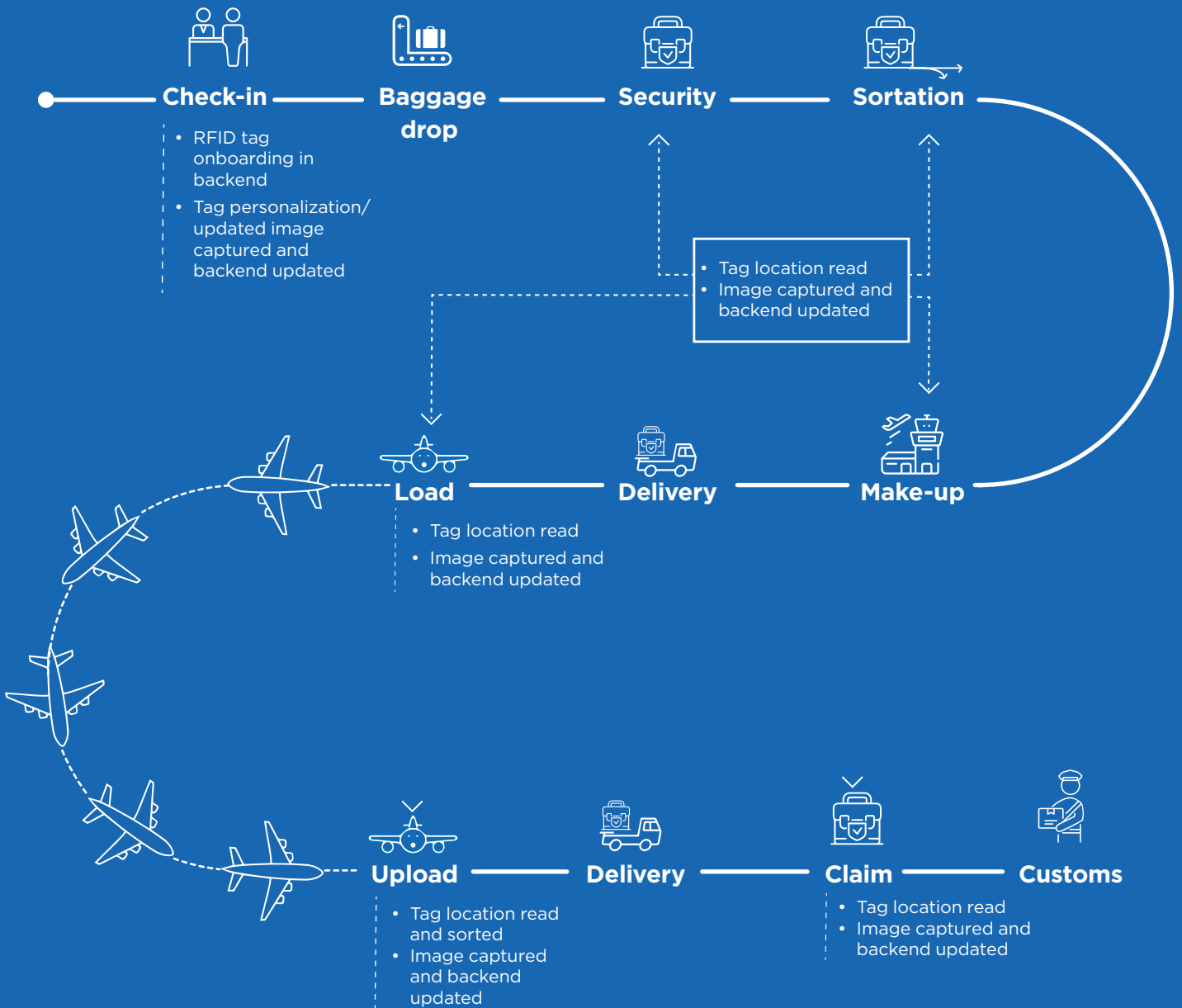
Solutions

Using traditional bar coded bag tag consisting of below elements:

- Airline/carrier name
- Flight number
- Baggage tag number
- Destination airport code

Using the NextGen tag profile that provides more flexibility in below elements:

- Origin and destination
- Passenger name
- Baggage tag number
- ULD details
- Baggage picture
- Transfer and handler details
- Previous baggage journey
- Baggage sortation details
- Frequent flyer number and other details

The following image shows a use case on how the complete bag journey is mapped from the time the bags are dropped at the check-in counter and/or self-check-in kiosk.

Check-in
- RFID tag onboarding in backend
- Tag personalization/ updated image captured and backend updated

Baggage drop

Security

Sortation

- Tag location read
- Image captured and backend updated

Load
- Tag location read
- Image captured and backend updated

Delivery

Make-up

Upload
- Tag location read and sorted
- Image captured and backend updated

Delivery

Claim
- Tag location read
- Image captured and backend updated

Customs

Note:-Image will be used for analytic purpose to compare and find the damages and settle claims

Airlines and Airports together have to walk an extra mile to collaborate on infrastructure and technology which will ensure superior passenger experience leading to overall business transformation.

Benefits of intelligent bag track

Intelligent RFID increases automation in baggage handling processes, ensuring seamless baggage tagging, and tracking thereby significantly reducing the number of mishandled bags and the associated costs. The benefits of baggage handling using this process are as follows:

Benefits of using RFID technology for passengers

01
End-to-End baggage visibility

02
Real-time alert on baggage journey and disruption

03
Prioritization of baggage via tier level

04
Improved passenger experience by 90%

05
Increase repeat business via baggage service excellence

Benefits of using RFID technology for airports

01
Ability to print intelligent bag tags via kiosk, manual check-in, etc.

02
Speed up the baggage sorting process

03
Improved baggage make-up area operations

04
Ability to nominate and assign ground handler basis previous mishandled ration

05
Audit trail visibility and settlement

06
Increase in baggage handling capacity

07
RFID can automatically collect the data required to monitor and ensure compliance with safety regulations

Benefits of using RFID technology for Airlines

01

Ability to add more elements on intelligent bag tags

02

Accounting code mapping to ease settlement

03

Real time PNR update on baggage status

04

Ease of belt assignment basis flight arrival

05

Ease of revenue accounting on load shift

06

Reduction in Minimum Connection Times (MCT) for transferred passengers at hub airports (if transferred baggage is handled with RFID)

BI-113212325708307-EN00US