



# BRS Baggage Reconciliation System with RFID Support

## BRS Process Description - DEPARTURE

### Stage 1 - CHECK-IN

1. After baggage check-in DCS sends baggage source message (BSM).
2. In the absence of signed baggage tag DCS sends BSMDEL.
3. In the case of passenger offload or baggage loading forbiddance, DCS send baggage unload message (BUM).



### Stage 2 – SORTING

The first check point in all airports are X-RAY imaging for custom and Aviation security.



The checked baggage is scanned and sorted as clear and unclear by Sort Allocation Computer (SAC). After the classification of clear and unclear checked bags, SAC generates and sends Baggage Processing Message (BPM) to Baggage Reconciliation System (BRS) and other necessary systems. Unclear baggage is redirected to the baggage owner for clarification. Upon the successful clarification SAC marks a checked bag as clear and sends for loading.



Then, the baggage goes through the pier's conveyor. Pier porter scan and loading signed baggage to ULD or luggage trolley categorizing by class and baggage type:

1. First and business class
2. Priority baggage
3. Economy class
4. Transit business class
5. Transit economy class
6. Rush baggage, mail & cargo



After each successful scan the system generates and sends B P M to S I T A B A G M E S S E N G E R / M B L S or airline system. Next, designated containers or bulk loading baggage trolley are loaded into the compartments of the aircraft, which are assigned by the BRS operator based on the Load Instruction Report (LIR) from DCS.

## BRS Process Description - ARRIVAL

Baggage unloading - at this stage, there are no significant differences with the existing method of unloading luggage. The only difference is in the scanning of the baggage tag before sending the baggage to the baggage claim carousel.

**Option 1** - installation of an arch with scanners for automatic reading of luggage tags with generation and sending of BPM messages.

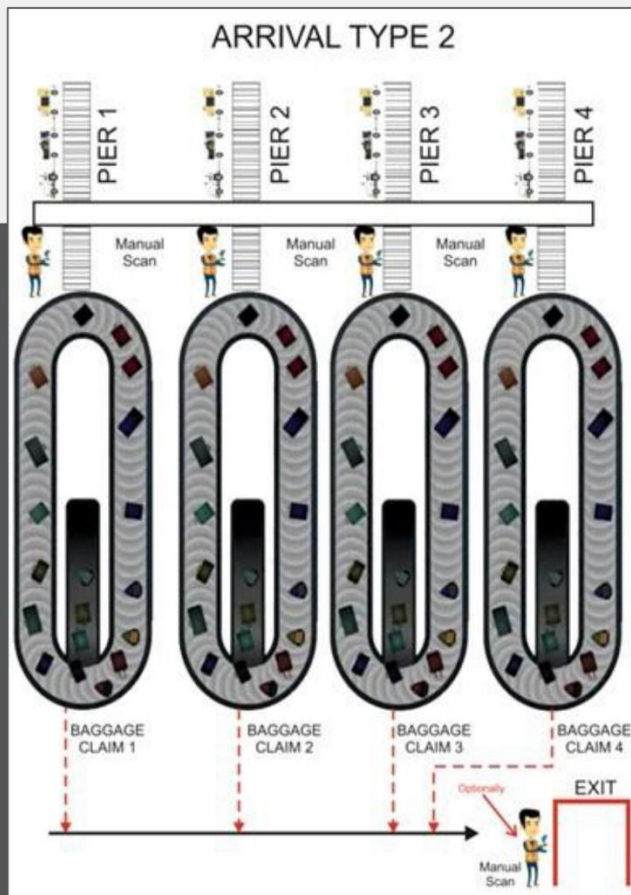


**Option 2** - manual scanning of each tag when unloading the baggage onto the luggage carousel. The system has the function of photographing or video recording the damaged or open baggage for further proceedings.

**Option 3** - manual scanning of the received baggage when exiting the baggage claim area for domestic flights and when passing custom for international flights (Green or Red corridors).

The choice from the mentioned options depends on the technical and financial capabilities of the airport.

In Options 2 and 3, manual scanning is performed by PDCT device sending a BPM message to the BAG MESSENGER.



## Stage 3 – LOADING

During the bulk-loading method, the porter scans each tag before loading the luggage onto the trolleys from pier's conveyor. The checked bags are sorted into categories on pier after processing by the BHS system, while the device screen (PDCT - portable data collection terminal) displays information regarding the assigned compartment of the aircraft to each loaded trolley. The trolleys are pre-numbered.

### **Baggage handler (porter) performs the following actions:**

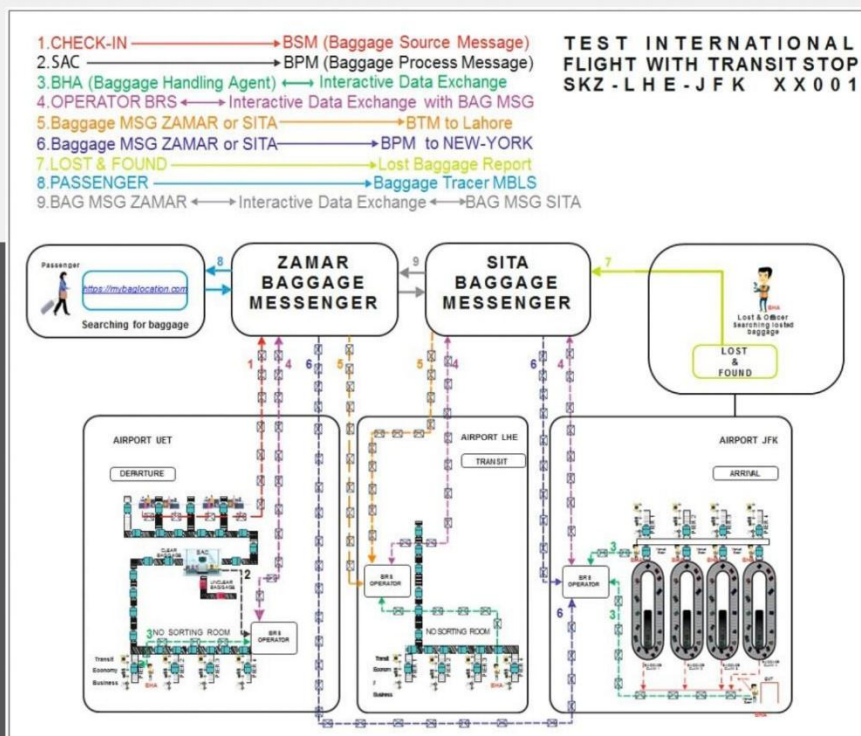
- Scan baggage tags before transferring checked baggage from the trolley to the loading conveyor
- Loads the baggage onto the assigned compartments of the aircraft
- Removes the offloaded baggage - the tag of which was canceled by BUM

Updates the information on PDCT - portable data collection terminal

- Baggage OK- generate BPM
- Baggage NOK- bag tag canceled by BSM DEL/BUM
- Alien / Unknown baggage - baggage from another flight
- Duplicate



## BAGGAGE MESSAGES EXCHANGE DIAGRAM



### **Phased baggage route:**

1. Check-in - DCS sends BSM
2. Security check - SAC sends BPM
3. Baggage handler (loader) - online changes baggage status to "loaded"
4. BRS - sends BPM to recipients, via STX or email
5. All necessary data is archived.

## REPORTS

- Baggage manifest - system allows you to view and print baggage manifests
- Baggage Status on board - system allows you to group and print baggage manifests depending on the status of baggage
- Daily baggage report of a specific airline - system can generate reports for airlines for a wide range of time period - per day / week / month / year, etc.
- Daily baggage report for airport by airlines – system can generate reports for airport based on airlines, flights, passengers , number of checked bags, and time period (per day/week/month/year and so on).

Flight number / destination / date / BRS operator					
Passenger name	Final destination	Baggage tag number	Baggage category	ULOD number	Compartment number
Smith / John Mr.	JFK	555 000001	C	AKE 2222	4
Cargo					
Mail					
Rush baggage					

## BENEFITS

### *To improve the efficiency of the BRS we implement additional NON BRS modules*

- MBLS “my bag location system” baggage tracker system [www.mybaglocation.com](http://www.mybaglocation.com)
- LOST & FOUND – alternative to WORLD TRACER, available only to admin users of MBLS.
- SAC – sort allocation computer.

The combination of the above systems gives the airport, airlines, passengers full control for the movement of baggage in full compliance with IATA Resolution 753.

## IATA RFID Bag Tag Initiative

### Fact Sheet

The IATA Board of Governors, meeting at the 74th IATA Annual General Meeting, mandated IATA to address passenger expectations for real time tracking of baggage. IATA has completed the first step toward creating a global development plan that will see IATA-standard RFID inlays in all baggage tags. We are now working to align our partners in the value chain—especially airports—in order to achieve the industry vision to begin rolling out RFID bag tracking from 2020.



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