Interactive Cargo

Pilot Projects

11 March 2021
Our vision

To equip airlines and the air cargo supply chain with responsive air cargo services based on intelligent systems able to:

• **self-monitor**;
• send real-time **alerts**;
• **respond** to deviation to meet customers’ expectations;
• and **report** on the cargo journey to allow data-driven improvements.
Project Goal, Objectives and Key Deliverables

Provide stakeholders in the air cargo supply chain with a set of standard and guidance documents to enable and facilitate the use of connected devices for **interaction with cargo**.

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**Legend**
- Policy Paper
- Recommended Practice (RP)
- Standard Operating Procedure (SOP)
- Data Use Agreement (DUA)
- Pilots
Pilots for Operational Validation

How to verify the set of standards are fit for purpose?

- Stakeholders
- Scope (i.e. business process)
- Deliverables
- Timeline

- Project team
- Roles & responsibilities
- Organization structure

- Stage-gate process
- Project committee
- Key Performance Indicators
Pilot project objectives

Interactivity Characterization

- Test and refine the data model of IoT devices in air cargo
- Integrate the data model of IoT devices into the ONE Record data model
- Validate IATA’s standard API for IoT devices in air cargo
- Capture real-time data on cargo conditions
- Share IoT data accross the supply-chain
- Develop operational processes to respond to deviations

Device Certification

- Speed-up the approval of the use of active devices onboard aircraft for air cargo
- Standardize the approval request form
- Simplify the approval process for interlines
- Pre-assess cargo tracking devices by IATA (need to be validated by airlines)
- Create a database of approved cargo tracking devices
Real-time cargo tracking for shipments requiring special handling

Pilot Description

- Track shipments requiring special handling, using Bluetooth Low-Energy (BLE) tags and sensors to capture real-time geolocation, temperature and humidity throughout the journey, except in-flight.
- Display the data in the carrier’s platform and connect with supply chain actors using the One Record protocol.

Pilot Participants

- Shipper
- Freight Forwarder
- Airline
- Ground Handler
- Device Manufacturer
- IT Service Provider

Implementation roadmap

- Identify participants: DEC-20
- Install receivers: MAR-21
- Evaluate results: JUN-21
- Select airports and trade lanes: DEC-20
- Monitor Shipments: APR-21
Visibility, Tracking and Alerts at the Piece Level

Pilot Description

- Deploying OnAsset’s SENTRY devices for consignment visibility and Sentinel BLE devices to extend the visibility to piece level on Air Canada Cargo shipments.
- Demonstrating autonomous delivery of in-shipment status messaging and sensor-based alerts with availability through OAInsight API. Also, to include CargoIQ milestone mirroring through AC Cargo facilities. Additionally, include the visibility and tracking of Unilode ULDs integrated with the OnAsset Sentinel BLE devices.

Pilot Participants

Airline
Ground Handler
Device Manufacturer
ULD Manufacturer

Implementation roadmap

Deploy devices
JAN-21

Evaluate results
JUN-21

Shipment tracking and alerts
APR-21
Smooth border crossing by data sharing and logistics transparency

Pilot Description

- Vedia is seeking One Record for air-road transport and especially focusing on IoT aspects and data sharing in multimodal logistics chains.
  - Data collection from road transport via mobile app, IoT device and background systems
  - Data sharing between business and authorities
  - Data sharing between road and air transport
- Automated border crossing pilot between Norway and Finland is the first place where Vedia will adapt One Record
  - Data sharing between road transport, authorities and air cargo

Pilot Participants

More stakeholders will be added soon

Implementation roadmap

- Q1/2021 Vedia 1R server ➔ Finland Norway border crossing pilot Q1/2021 ➔ Q2/2021 Finland Baltics corridor collaboration ➔ Finland – Russia – China corridor collaboration H2/2021
Portable Electronic Device (PED) approval for air cargo

**Pilot Description**

- To adopt the IATA recommended practice and checklists for the approval of Portable Electronic Devices onboard aircraft for air cargo, in order to standardize information required for approval and decrease the total duration required for carriers to complete an approval request.

**Pilot Participants**

- **Airline**
  - Singapore Airlines Cargo
- **Civil Aviation**
  - CAAS
- **Device Manufacturer**
  - Be On Solutions
  - berlinger group

**Implementation roadmap**

- **NOV-20**
  - Find device manufacturers to participate in the pilot
- **Singapore Airlines to implement the IATA standard approval process**
- **CAAS to review IATA Recommended Practice**
- **OCT-21**
  - Evaluate total duration of the approval review
  - Validate the new process with device manufacturers
IATA pre-assessment of cargo tracking devices

Pilot Description

• To develop an IATA pre-assessment program for Device Manufacturers that verifies the validity of a request for the approval of a cargo tracking device by airlines:
  1. IATA standard request form
  2. and supporting documents that IATA recommends to attach to the request.

Pilot Participants

Airline
Device Manufacturer
IATA

SINGAPORE AIRLINES CARGO

berlinger group

Implementation roadmap

MAR-21
IATA to survey airlines to validate the need

JUL-21
IATA to implement the pre-assessment

SEPT-21
Validate the program with device manufacturers and airlines
Thank you

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