



Interactive cargo pilots

Lessons learned 2021

Introduction

The purpose of this document is to capture the feedback received from the stakeholders participating in the Interactive Cargo pilots launched in 2021 and to use this information to define further use cases for additional pilots in 2022; to utilise the insights learned to develop and improve standards for the air cargo industry; and enhance the use of ONE Record for data sharing.

Objective of the pilots

The different pilots all have specific objectives defined, though the common goal of the trials is to:

- Test, confirm and adopt the recommended practices related to interactivity defined by IATA and endorsed by the CSC
- Trial the use of BLE devices for tracking shipments
- Provide end-to-end visibility of shipments via real time tracking and monitoring
- Assess the use of the ONE Record data model and data sharing in cargo interactivity

Status

Seven pilot projects with around 20 industry stakeholders (airlines, forwarders, device manufacturers, IT solution providers) were initiated around the world, of which five projects has reached execution phase, the rest is still in initiation phase with stakeholder identification as the core task.

Achievements

- A Hong Kong based airline (*Cathay Pacific*) implemented the use of PED devices in real shipments flying in their network and are tracking the location, the temperature, and other attributes of the shipments real time. In addition, they also piloted connection to customers using the ONE Record API standard for connection.
- A North American Airline (*Air Canada*) has installed BLE readers and tags of a cooperating stakeholder (*ONAsset*) on their aircraft and facilities to track temperature and use this data to monitor pallets, ULDs, maintenance equipment, warehouses, etc.
- A Northern-European technology solution provider (*Vedia*) implemented a mobile application to collect data on shipments, including the driver, the truck, the trailer and about the cargo ID. This information is then shared with the customs and is used to speed up border crossing of the truck by automated crossing. They have also integrated ONE Record data architecture into their data solution.
- Southeast – Asian airline (*Singapore Airlines*) has successfully employed the PED approval checklist and process defined in the IATA RP1693 and confirmed that following the recommendation shortens the device approval process.



Challenges identified

The challenges identified during these pilots can be grouped into three categories: i) market approach, ii) technical challenges, iii) general market conditions.

Market approach

- Need for recognition of the ONE Record API standard not only among air freighters but also all other players on the supply chain
- No real interest from certain stakeholders to engage with data sharing using ONE Record as it poses a danger to existing products and revenue sources
- Not all relevant stakeholders value the potential of standard device approval process and continue to stick to individual processes defined by their organisation
- Use of different tracking solutions without standard data sharing upholds lack of transparency

Technical

- Difficulties encountered to transform legacy database to fit ONE Record data model
- ERP providers not willing to update their systems

General market conditions

- Worldwide pandemic forced air cargo stakeholders, like all business, to reshuffle priorities and introduce budget restrictions.
- General interest to further digitalizing air cargo supply chain is present in the market but is not considered top priority

Improvements

- Shift in the industry approach is needed to get more engaged with the use of tracking devices and adoption to ONE Record standard.

- Definition of practical use cases is necessary to better shed light on the benefits of real time data collection and monitoring so organizations would understand real-world benefits and could translate these benefits into own business objectives.

IATA involvement

IATA is playing the coordination role in this project, matching companies together, facilitating discussions and cooperation, keeping the momentum, and generally acting as the secretariat so that stakeholders can concentrate on trials and improvement.

Actions for 2022

With the resume of the Interactive Cargo Task Force as of May 2022, there will be again more focus on pilot projects to drive the air cargo industry towards the vision of the Interactive Cargo Project; 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

The activities around pilots will aim to:

- Complete already running pilots to gather additional insights and learnings
- Facilitate discussions around already defined use cases where stakeholder engagement is not at the desired level
- Identify further use cases featuring cargo interactivity, the use of tracking devices for real time monitoring, data collection and data sharing

To get involved or propose a pilot, contact us at interactivecargo@iata.org