ONE Record Cargo Distribution Data Model

Pilot Description

• To test the cargo distribution process between airline and forwarder using ONE Record standard
• Scope include Booking request and response between airline and forwarder

Pilot Participants

TURKISH CARGO
CARGO COMMUNITY NETWORK
Freight Forwarder

Pilot Project Tag Line

“The journey towards digital cargo begins with one small step in ONE Record”
ONE Record Cargo Distribution Data Model

**Data Model**
- Airline Core Ontology
- Shipper’s Letter of Instruction
- Cargo Distribution
  - CO2 Emission
  - e-CMR
  - ULD Tracking
- Interactive Cargo (IoT)
- Dangerous Goods
- Pharmaceutical
- Customs (PLACI, ICS2)
- Ground Handling

**API / Security**
- PUB/SUB
- LO update
- Access delegation
- Security
  - Status update
  - Audit trail
- Access restriction
- Cascading status update - Pub/sub in multi-chain
- Data integrity / non repudiation with RDF
- SHACL shapes
- IoT updates
- Rich data

**Implementation roadmap**
- **High Level Timeline**
  - Requirement Study
    - Jun 21 – Jul 21
  - Development
    - Aug 21 – Sep 21
  - End-to-end testing
    - Sep 21 – Oct 21
Flow Diagram

TK Forwarders using CCN Booking Concierge

Email/EDI

Forwarder
ONE Record Server

ONE Record API

CCN ONE Record Hub

Forwarder A
ONE Record Server

Forwarder B
ONE Record Server

Forwarder n
ONE Record Server

Turkish Cargo
ONE Record Server

Email/EDI

Web App to view shipment data on TK ONE Record Server hosted at CCN