FEDeRATED EU-Gate eCMR/eFTI Living Lab
OneAPP for Authorities

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Agenda

- The e-CMR/eFTI living lab
- OneAPP for Authorities
- From document to dataset
- Semantic interoperability
- Summary
Interoperability within a global context

Focus of the EU-Gate e-CMR/eFTI living lab
EU-Gate - EO Perspective
EU-Gate: eFTI perspective
From document to dataset

REST Resource

http Verbs

Microservice

Events

Source: edi3.org
Steve Capell
Use case

- **Rotterdam (NL)**
  - House waybill 1
  - CMR 1
  - Truck Manifest 1
  - ADR 1
  - CSD 1

- **Antwerp (BE)**
  - CMR 1
  - Truck Manifest 1
  - ADR 1
  - CSD 1
  - AWB 2, includes CSD
  - CMR 2
  - Truck Manifest 2

- **Luxembourg**
  - AWB 1
  - DGT 1
  - Security declaration

- **Chicago O’Hare**
  - Shipper, forwarder transport operator
  - Dangerous transport
  - Security declaration
  - Issued by carrier
  - Issued by sender goods
  - Handling agent, driver
  - Public authority

- **Road 1**
- **Road 2**
- **# Flights**
- **GHA Export**
- **GHA EU Export**
- **GHA EU Exit**
- **GHA Destination**
OneAPP/API for Authorities

- Real-world multi-modal reference supply chains
- Create common understanding
- Living lab 2019-2023
Model driven interoperability
Shipments and consignments

A transport order is an agreement between the sender of the goods and a carrier to move goods between a place of receipt/loading and a place of unloading/delivery.

Housw waybill, Air waybill, CMR, CIM, CMNI, …
Carriers manage their logistics network by “tineraries”, “roundtrips”.

Accurate transport information is essential to plan and monitor a fleet of trucks, barges, aircraft, trains towards higher utilization, load factors, net yields and delivery “as agreed.”
The UNCEFACT BuyShipPay (BSP) reference data model (RDM) defines the relationships between shipments, consignments and the movements of transport means.

The Multimodal Transport reference model (MMT) is a subset of BSP.
The EU-Gate Living Lab adopts the deliverables of the UNCEFACT RDM2API project:

- JSON-LD Vocabulary
- RESTful API to share events between logistics objects (“resources”)
- Model based API generation
FEDeRATED Ontology

The EU-Gate living lab implements the FEDeRATED ontology

- Semantic Web, RDF/OWL presentation syntax
- Events are shared in an hyper decentralized architecture
- Extended interoperability with EU data spaces and eco systems and regulatory environments
FEDeRATED Inside

- Data at source is accessed by a federated API architecture
- Logistics parties share milestone events
- Authorities pull datasets of structured information; EO publish meta data
- Interoperability of global and EU semantics and ontologies

EU-Gate is a living lab

- Logistics parties use the same source of data for commercial, transport and compliance
- Linked data, unique identifiers
- Self sovereign identity and Verifiable credentials

Understand eFTI
- (eventual) role of eFTI access points
- OneAPP for Authorities