



KV4.0 - Digital data hub of combined transport

Messe München 2023 – UIRR Event

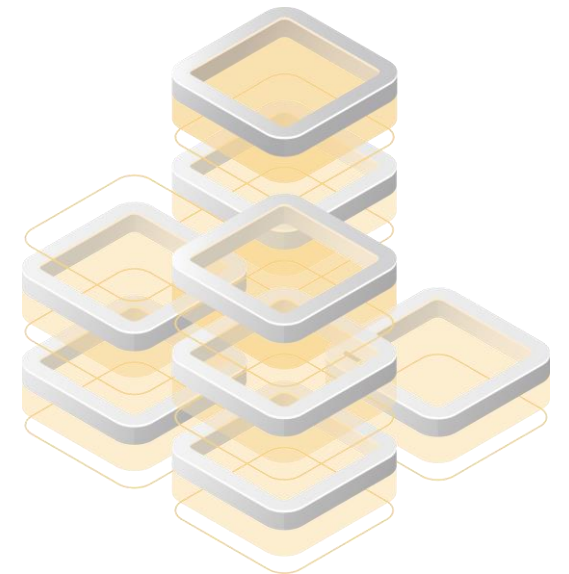
Aldo Puglisi, Managing Director DX Intermodal GmbH

Munich, 10.05.2023



Agenda

- Introduction
 - KV4.0 Data Hub
 - Process coverage & standard interfaces
- Main benefits for the CT shareholders
- DX Intermodal Company
- Q&A



Starting situation

The complexity of intermodal supply chains is one of the biggest challenge of combined transport compared to other transport methods



Many parties and electronic data interfaces (Terminals, LSP, RU, etc.)

Elaborated organization of intermodal transports

Digital standalone solutions of the parties involved



Complex end-to-end information chain

Objectives

Common data hub for the exchange of bookings, timetable and shipment status data



Consolidation of all data within the intermodal supply chain

Real-time data

Harmonization of the electronic data interfaces

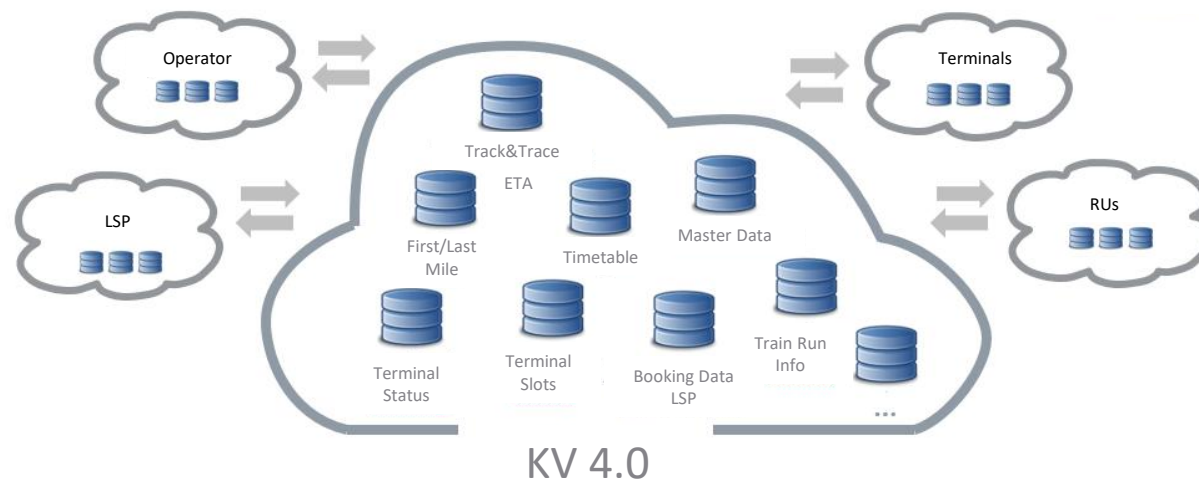


Data available and usable for all authorized parties involved

Supply chain transparency

KV4.0 Data Hub

- The KV4.0 Data Hub is the result of the KV4.0 Project implemented successfully in 2017-2020 and financed by German Ministry of Innovation
- The KV4.0 Data Hub is an **open integrated data hub** increasing transparency across the entire intermodal transport chain
- KV4.0 Data Hub is a **modern cloud-based solution**
- **DXI Company** founded in 2022 with the objective to manage the KV4.0 Data Hub
- All participating partners provides the relevant order and transport-related information (based on standard XML EDIGES format)



KV4.0 Data Hub is the result of KV4.0 Project

KV4.0 Project Partners

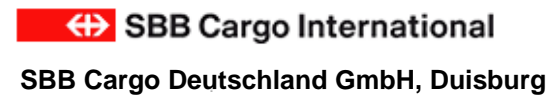
Logistic
Service
Providers



Intermodal
Operators



Railway
Undertaking



Intermodal
Terminals

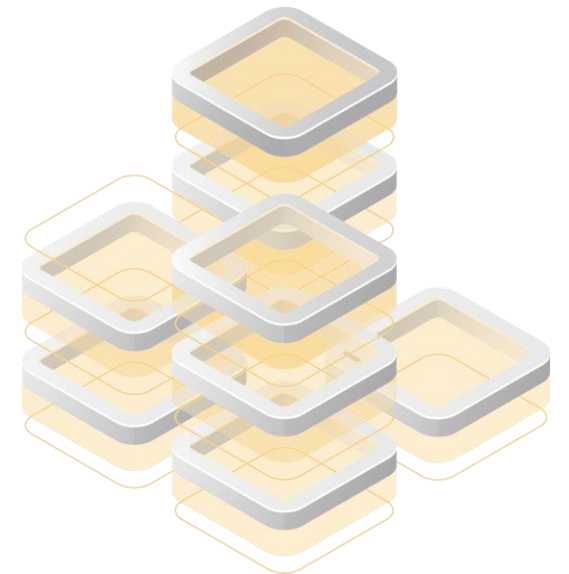


Technical Partner



What is the KV4.0 Data Hub?

- No Web platform (Web View) but an **electronic data hub**
- **Central distributor** for all messages of the intermodal supply chain
- Communication with the hub via **standard REST API** (URL, user, password and token)
- **PUSH** procedure for delivering data to the hub
- **PULL** procedure for collecting messages from the hub
- Uniform XML standard for data exchange: **EDIGES 4.1**
- **Validation rules** for conformity with the current EDIGES format
- Only the **sender determines the respective recipients** of the data
- **No storage** of data on the hub

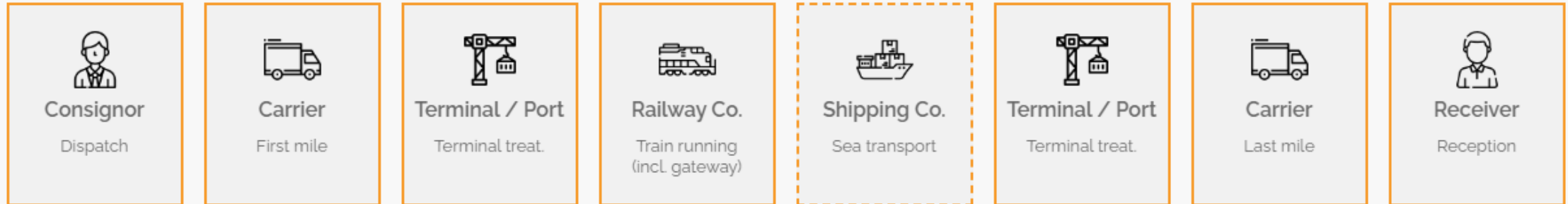


KV4.0 Data Hub – Overall Concept

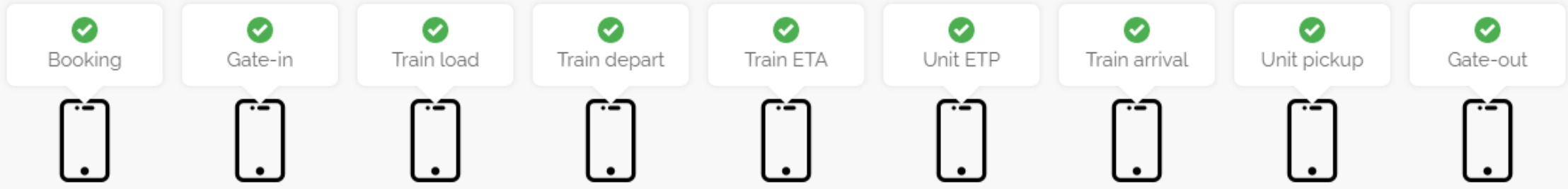


Standard intermodal process

Intermodal operator
Terminal to terminal or Door to door



Main EDIGES messages



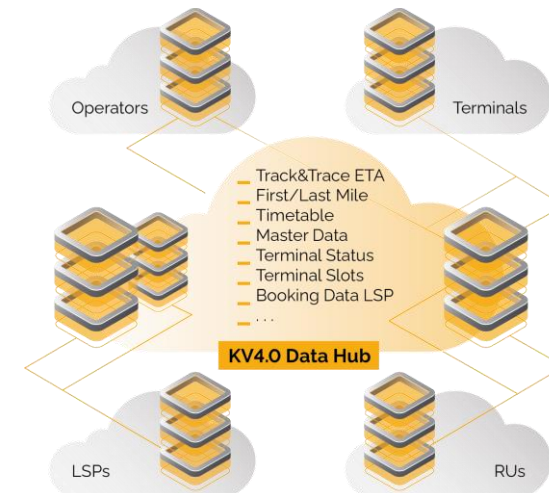
Main benefits for the CT shareholders

Main Benefits

- Data **transparency** from the booking to the collection of the loading unit
- Transport units **booked through a single interface** for the LSP
- Optimized **forecast data** (ETA and ETP) in the event of irregularities
- Planning of the **terminal slots** is improved by the timely knowledge of planned shipment
- Improved **allocation of truck arrivals** and departures in the terminal
- Up-to-date **timetable data** of all connected operators

Main Characteristics

- **Single point for direct access** to transport-relevant data of combined transport
- **Optimized data exchanges** costs thanks to a single interface
- Easy access via **standardized interfaces** with **EDIGES**
- Modern **cloud-based** solution



Current status of DXI activities

- Foundation of the **company DXI GmbH** (October 2022)
- Completion of the **KV4.0 Data Hub productive version** (February 2023)
- **First commercial use** (March 2023)
- Support of the first users in connected to the hub
- Promoting the data hub to other players (LSP, EVU, TO, IO)
- Currently **message types provided by the users**: commercial timetable, booking, ETP, ETA, train running, terminal status, terminal master data, DB Netz network disruption
- Connection of **further message from the users ongoing** (e.g. operational timetable)



How to get connected to KV4.0 Data Hub

Interested to get connected?

Contacts

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