Fact Sheet

OSDM[1] & Transmodel: two complementary solutions for multimodal passenger services

CER The Voice of European Railways

UITP ADVANCING PUBLIC TRANSPORT

CER and UITP jointly support leaving the choice to stakeholders to use either:

- **Transmodel** (NeTEx[2] / SIRI[3] / OJP[4]) as a harmonised reference **for public transport stakeholders**, or
- **OSDM – the Open Sales and Distribution Model – as an interoperable standardised sector solution for regional, long distance rail and multimodal operators and ticket vendors** part of the Single European Railway Area (SERA).

Compare the two models below and read more in our joint statement 'Data models and standards for multimodal passenger services'

OSDM[1] – ERA TAP Technical Documents

IMPLEMENTATION

Harmonised and standardised implementation

- Harmonised sales process scalable to multimodality
- Off-the-shelf and open-source standardised specifications
  - Fare Database specifications (OSDM offline) → Database for Rail Tariffs and Fares (UIC-DRTF) = UIC software implementation
  - API specifications (OSDM online), incl. interface for multimodal online journey planner and MDMS (Multimodal Digital Mobility Services) platform

FARES

Combination of fares towards through fares

- International fares, incl. solution for non-harmonised conditions of use across Member States (e.g. age, VAT)
- Domestic fares
- Non Reservation Ticket (NRT)
- Integrated Reservation Ticket (IRT)
- Yield managed fares, incl. dynamic fares
- Any mode-related fares supporting multimodal through fares

RETAIL

Retailing process

- Full sales and after sales process
- Support for various forms of fulfilment (digital, chip, paper)
- Support for complaint handling and reimbursement processes
- Special support processes for PRM (Persons with Reduced Mobility)

SPECIFICATIONS

Open Source specifications

- Off-the-shelf and open source specifications:
  - Stateless architecture (REST) based API
  - Code generation for implementation
  - Client implementation and sandbox
  - Support for authentication and tracing part of standard
- Data model developed using a standard method (UML)
- Standardised web architecture for web services (JSON), supporting other data exchange formats (XML)

MAINTENANCE

Maintenance/ evolutions based on ERA CCM process

- Backward compatible evolutions
- Rapid evolution:
  - TAP technical documents via the ERA TAP Change Control Management (CCM) process: 6 months
  - OSDM (UIC IRS 90918-10 as AMoC): 2-3 months

Transmodel (implemented by NeTEx[2] / SIRI[3] / OJP[4]) – CEN standards

A coherent ecosystem for multimodal interoperability

- Conceptual data model, implementation independent
- Reference language and data structures
- Implementation of data exchange (NeTEx for static data, SIRI for dynamic data, OJP for trip planning) and further derivation of standard profiles (e.g. NeTEx passenger information, NeTEx accessibility)

Description of simple & combined intermodal fares

- Wide range of fares, incl. combination of complex fare structure types (e.g. park & ride)
- Most functions of fare policy definition, sales organisation and sales transactions, fares offer
- NeTEx data interoperable with NRT / IRT
- Static data, possibility to relate to dynamic data

Data model for sales transactions and retail process

- Representation of the sales offer
- Purchase and after sales rules
- Fulfilment methods

European Norms and CEN Technical Specifications

- Full documentation distributed by National Standardisation Bodies (NSBs)
- Open source specifications for technical artifacts
- Data model developed using a standard method (UML)
- Standardised data exchange format (XML)
- Standardised web architecture for web services (SOAP)

Maintenance/ evolutions based on CEN process

- Update with approval of National Standardisation Bodies (NSBs) (formal CEN process)
- Continuous technical support for the adoption of technical artifacts incl. through EU programme support actions

1 *Open Sales and Distribution Model* 2 *Network Timetable Exchange* 3 *Service Interface for Real time Information* 4 *Open Journey Planner*