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Report

Comparative analysis of rail ticket distribution rules in the Open Sales and Distribution Model (OSDM), the TAP TSI, the Rail Passenger Rights Regulation, and the recent competition decisions and national rulings under unfair trade law

Document History

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1. Executive summary

This document analyses the proposal of the Open Sales and Distribution Model ('OSDM') defined in UIC's (International union of railways) IRS 90918-10 in the light of

- the legal requirements stemming from Regulation (EU) 2021/782 ('RPR Regulation')¹
- the legal requirements stemming from Commission Regulation (EU) 454/2011 ('TAP TSI')²
- the conclusions reached under competition law and unfair trade law by:
 - o the European Commission in its commitments decision against Renfe (the Spanish rail incumbent),
 - o the Bundeskartellamt in its prohibition decision against Deutsche Bahn (the German rail incumbent),
 - o by the Italian Competition Authority,
 - o national courts under unfair trade law.

The key point of the antitrust cases against Renfe and Deutsche Bahn is to allow third-party Distributors to get full access to the input they need to compete effectively with the dominant railway undertaking in the provision of ticketing services.

- For Renfe, this means granting access to all Renfe's tickets, discounts and functionalities (collectively, 'content') and real-time data ('RTD') related to all Renfe's passenger trains displayed on its own online distribution channels (including Renfe's mobility platform).
- For Deutsche Bahn, this means granting access to all RTD available to Deutsche Bahn.

OSDM is a proposal for an industry specification aiming at simplifying the rail ticket distribution in EU. The part of the railway sector representing dominant railway undertakings (national incumbents) in the EU is lobbying Member States and European institutions to incorporate the OSDM specification in the European Regulation, namely in the TAP TSI, which would make its implementation mandatory.

The current specification of OSDM shall therefore be verified, to check if it is in line with the European legislation before any elements can possibly be integrated as technical document in the TAP TSI. According to Article 4 (8) of the Directive (EU) 2016/797 on the interoperability of the rail system within the EU, only European Standardisation Organisations' (ESOs) standards or ERA technical documents can be referenced in TSIs.

The findings of ERA about the non-compliant functionalities of OSDM and the risks of their usage, as well as the changes and clarifications required to address those risks and enable the possible integration of relevant part of OSDM in existing ERA technical document referenced in the TAP TSI, are summarised as follows:

- › The roles of Distributor and Retailer are used as follows under the TAP TSI, competition law and in OSDM:
 - › Competition law defines the role of Distributors and Retailers by distinguishing between non-genuine agents (independent Distributors) and genuine agents (Retailers). An independent Distributor can also carry out the tasks of a Retailer.

¹ Regulation (EU) 2021/782 of the European Parliament and of the Council of 29 April 2021 on rail passengers' rights and obligations (recast) (OJ L 172, 17.5.2021, p. 1, ELI: <http://data.europa.eu/eli/reg/2021/782/oj>)

² Commission Regulation (EU) No 454/2011 of 5 May 2011 on the technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system (OJ L 123, 12.5.2011, p. 11, ELI: <http://data.europa.eu/eli/reg/2011/454/oj>)

- › Under the TAP TSI, the role of the Distributor is specified in more detail and allows the concerned ticket vendors to have direct access to timetable, fares (fares without tax, reduction cards, etc.) and condition of carriages. On this basis the Distributor can:
 - › assemble products from a point of origin to a point of destination ('O-D') operated by different railway undertakings into a complete journey (journey planning);
 - (i) calculate its price based on the fares of the operating railway undertaking (price computation). This task has been traditionally carried out by railway undertakings as a legacy of integrated railway operators;
 - (ii) check the availability or reserve requested fares through the booking API interfacing with the operating railway undertaking when corresponding products (fares) offered by the Distributor to its customer are subject to availability check or reservation.
- › In OSDM, the creation of offers to be sold by ticket vendors is exclusively assigned to railway undertakings. Therefore, **the role of the Distributor as defined in the TAP TSI cannot be assigned to a ticket vendor in OSDM**. Retailers, as defined in the TAP TSI (generally third-party ticketing platforms), sell to the customer a ticket without or with a reservation for a rail service. **The role of the Retailer under the TAP TSI can be assigned to a ticket vendor in OSDM**.
- › In the Renfe and Deutsche Bahn decisions, the European Commission and the Bundeskartellamt clarify that, respectively, third-party ticketing platforms and third-party mobility platforms provide their own value-added services to users, which go beyond a mere intermediation service. Therefore, third-party ticketing platforms and mobility platforms, which have made investments at their own risks (e.g., in their ticketing capabilities and in advertisement), act as Distributors. As such, they shall be able to offer their own products subject to additional price computation which may differ from the fares offered by rail undertakings. In OSDM, by contrast, the creation of the offers to be sold by the Retailer is exclusively assigned to the railway undertakings.
- › The function "Journey planning" is included in OSDM in the functions for "Getting and Browsing Trips". OSDM cannot guarantee that there is no **misleading filtering applied**, or that for all trains the **timetable data is not made available to third-party Distributors in the same data quality as for the integrated sales channels of the railway undertakings**. Such **discriminatory practice is not compliant with the obligations** laid down in Article 10(3) of the RPR Regulation.
- › Under OSDM, the Distributor (usually another railway undertaking) receives an offer for specific trip(s) from the fare provider(s) (generally the operating railway undertakings) according to their fare combination rules. This is covered by the business process "Getting and Browsing Offers". The returned **information can be pre-processed/filtered by the Distributor towards the Retailer, as recommended by the OSDM specification**. Such **discriminatory practice is not compliant with the obligations under Article 10(3) of the RPR Regulation**.
- › The exclusive usage of APIs within **OSDM** for the entire ticketing process (booking and ticket sales, complaint handling and reimbursement) **allows a different processing of the requests depending on the party submitting such a request** ('the requestor'). This would constitute an **in-built feature in OSDM to restrict the access to the content depending on the requestor**.
- › **OSDM allows to submit:**
 - (i) distinct offer requests for timetables and fares, or
 - (ii) **an integrated offer request for both timetables and fares at once not respecting the distinction between journey planning and fare information**.

In the second case (ii), the offer request can be configured using the data for a specific trip, stemming from a journey planner operated by another entity than the rail undertaking/fare provider. In this case, the operating **railway undertaking or its fare provider can filter the offer it provides in a misleading way**.

- › In the case of multi-carrier trips, the booking for the overall trip takes place in the system of the Distributor whereas the bookings for the specific products (legs) are made directly in the booking system of the different carriers. There is a risk due to, among others, technical problems or filtering, that the booking could be unsuccessful in the booking/attribution system of one of the carriers.

But **OSDM could be used as a voluntary API specification for retailing only, outside of the scope of the TAP TSI.**

The current scope of the TAP TSI applies to Distributors for which it defines API specifications only for availability check and reservation. It also defines the format (NeTEx/Transmodel) to be used when making timetable data and fare data available across the overall distribution chain.

This report has been carried out by the Agency and expresses its opinion in relation to online rail ticketing with regards to:

- (i) the compatibility of OSDM with provisions of the RPR Regulation,
- (ii) the rail ticket distribution rules in the TAP TSI,
- (iii) recent competition decisions and national rulings under unfair trade law.

This report is without prejudice to any assessment of competent authorities, in particular under:

- Articles 101/102 TFEU,
- Article 32 of the RPR Regulation,
- Article 9 of Commission Delegated Regulation (EU) 2017/1926 ('MMTIS Regulation')³.

³ Commission Delegated Regulation (EU) 2017/1926 of 31 May 2017 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services (Text with EEA relevance) (OJ L 272, 21.10.2017, p. 1, ELI: http://data.europa.eu/eli/reg_de/2017/1926/oj)

2. Introduction

On 26 June 2023, the Bundeskartellamt published a decision concerning Deutsche Bahn, the state-owned passenger rail services incumbent in Germany (see “Open markets for digital mobility services – Deutsche Bahn must end restrictions of competition”⁴). The full decision is available on their website⁵. This decision addressed among other topics the access of mobility platforms to RTD and the business relationships between the actors taking part in the distribution of rail tickets.

On 17 January 2024, the European Commission adopted a commitments decision (Case AT.40735 Online rail ticket distribution in Spain) concerning access to Renfe content and RTD by third-party ticketing platforms⁶. In the decision based on Article 9 of the Council Regulation (EC) 1/2003, Renfe, the Spanish rail incumbent, has committed to provide access to its full content and its full RTD regarding Renfe passenger rail services to third-party ticketing platforms. Renfe’s commitments foresee short deadlines for the implementation of those measures.

There is one further case concerning the abuse of a dominant position in the market for online rail distribution by railway undertakings, as well as two rulings under the German Act Against Unfair Competition (see list based on the knowledge of the Agency in Annex 1).

Those cases and rulings give some initial guidance concerning the further implementation of the TSI Telematics and the assessment of OSDM, especially in relation to the provision of content and RTD relating to distribution services under competition and unfair trade law, the architecture of the data exchange and of the distribution functions and their access rights pursuant to Article 10(2) and (3) of the RPR Regulation.

This document highlights the key elements of ERA’s preliminary analysis of the revision of the Telematics TSI and OSDM, taking into account the legal requirements stemming from the RPR Regulation, the TAP TSI and the findings from above mentioned cases and rulings.

This document is without prejudice to further assessment of regulators and competent authorities.

2.1. Interests of ERA in this topic

In the mandate⁷ of the European Commission given to the Agency concerning the TSI revision package 2022 the following two tasks, among others, were defined:

1. Merge the TAF and TAP TSIs to ensure consistency in the RU/IM annexes.
2. Take into account the industry-driven Full Service Model initiative - B2B platform for ticketing (rebranded as OSDM in December 2020).

During the revision of the TAP TSI, the change request CR 432 (“Provision of real-time data according to the revised rail passenger rights regulation”) has been created, to separate the topic “Merge TAF and TAP TSI”

⁴ https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2023/28_06_2023_DB_Mobilitaet.html?nn=3591568

⁵ <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Entscheidungen/Missbrauchsaufsicht/2023/B9-144-19.pdf?blob=publicationFile&v=3>

⁶ https://ec.europa.eu/competition/antitrust/cases1/202403/AT_40735_9845961_1266_10.pdf

⁷ Commission Delegated Decision (EU) 2017/1474 of 8 June 2017 supplementing Directive (EU) 2016/797 of the European Parliament and of the Council with regard to specific objectives for the drafting, adoption and review of technical specifications for interoperability (notified under document C(2017) 3800) (OJ L 210, 15.8.2017, p. 5, ELI: http://data.europa.eu/eli/dec_del/2017/1474/oj)

from the provision of real-time data to third parties, especially third-party ticketing platforms (ticket vendors and tour operators) addressed by the revised RPR Regulation:

The key results of corresponding discussion as detailed during the revision of the TAP TSI are summarised in the following chapters of ERA Recommendation⁸.

2.1.1. Merging TAF and TAP TSIs to ensure consistency of RU/IM communications and provisions for real-time data according to the revised rail passenger rights regulation

The task “Merge TAF and TAP TSIs” and the CR 432 addresses the provision of RTD according to Article 10 - Access to traffic and travel information of the RPR Regulation⁹, which specifies that RUs have to provide RTD to other RUs and 3rd parties, such as ticket vendors (travel agencies) and tour operators that sell their services, and that IMs have to provide such information to RUs, station managers, ticket vendors and tour operators. This is regulated in the TAP TSI point 4.2.18 (Train running information and forecast) and point 4.2.19 (Service disruption information) of the recommendation ERA-REC-122¹⁰.

During the discussion in the working party of the TAP TSI revision, the business relationships – which actor has to provide real-time messages and which actor can receive them – and the provision of real-time data by the IMs and RUs have been always questioned by rail sector representatives of CER/EIM supported by UIC. This resulted in a proposal of ERA concerning the TAP TSI points 4.2.18 and 4.2.19, not supported in consensus by the working party. This problem has been flagged in the accompanying report¹¹: *“Overall a common agreement how to manage the provision of real-time data according to the rail passenger rights regulation could not be achieved in the TAP TSI working party. According to the rules laid down in the document Rules - Working methods for workgroups providing input for Agency activities, V 3.0 [3] the Agency announced in the meeting of the TAP TSI revision working party on 19 May 2021 that, since agreement could not be reached after several WP meetings, ERA has to propose a solution for the real-time data provision. ERA announced therefore, that both sector and ERA proposals on the provision of real-time data will be included in the final ERA recommendation.”*

The European Commission have then to decide on the approach to be proposed based on the ERA recommendation. Therefore, the topic is not further elaborated in this report and would be addressed by the European Commission in its proposal for a draft Implementing Regulation for the TSI Telematics aligned with the decision of the Bundeskartellamt against Deutsche Bahn, and the European Commission decision making Renfe’s commitments binding. Both decisions clearly state that RTD have to be provided to third-party ticketing platforms in the same quality as for the own online distribution channels of the dominant railway undertakings. These decisions would confirm ERA’s proposal to re-use existing RTD exchanged between the infrastructure manager and the operating railway undertaking pursuant to the TAP TSI points 4.2.18 and 4.2.19 to provide non-discriminatory access to traffic and travel information across all railway undertakings and ticket vendors.

⁸ https://www.era.europa.eu/content/recommendation-era-rec-122-european-union-agency-railways-technical-specification_en

⁹ <https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX%3A32021R0782>

¹⁰ <https://www.era.europa.eu/system/files/2022-10/The%20recommendation%20as%20signed%20by%20ED%20%281%29.pdf>

¹¹ <https://www.era.europa.eu/system/files/2022-10/The%20accompanying%20report%20%281%29.pdf?t=1705917776>

2.1.2. Taking into account the industry-driven OSDM (previously known as Full Service Model initiative - B2B platform for ticketing)

The task to integrate the Full-Service Model into the TSI has been discussed in the TAP TSI revision: *“The supported option is to transfer of the relevant parts of UIC IRS 90918-10 (OSDM) to the new TAP TSI technical document B13. The detailed scope of those parts is to be determined. It has been underlined by the working party, that the solution shall be futureproof, especially as regards existing European standards and the expected deliverables from S2R IP4”.*

The UIC IRS 90918-10 (OSDM) contains two parts of the data exchange:

- (i) one part for the so called offline-data exchange, allowing railway undertakings to provide the model for their rail products to third parties such as other railway undertakings and ticket vendors to sell their products, and
- (ii) one part for OSDM - online, allowing the provision of an online API interface to book tickets on the attributing system of the railway undertaking, and therefore allowing the access to yielded prices in real-time.

This technical document B.13 has been drafted, focusing only on (i) relating to the exchange of the offline fares for the fare calculation by the Distributor. The part (ii) relating to the usage of the OSDM-online, covering the access to the booking interfaces of the railway undertakings and to their yielded prices in real-time, is still under discussion in the context of the finalisation by the European Commission of the Revision of the Telematics TSI.

3. Comparative assessment of OSDM with decisions of the Competition Authorities, national court judgments under unfair trade law, the RPR Regulation and the TAP TSI

3.1. Methodology

The Agency carried out this comparative analysis of OSDM Version 3.2 following these steps:

1. Collection of the requirements from the RPR Regulation and the TAP TSI.
2. Collection of the key findings stemming from the cases of the European Commission, the Bundeskartellamt, the Italian Competition Authority and judgments of national courts.

This analysis is based on the following key points flagged within those decisions and judgments:

- › The journey planner must deliver the full results of the existing trains journeys, without the application of a misleading filter (judgments under German unfair trade law).
 - › The full content and RTD, related to the dominant rail undertaking's passenger trains and displayed by the dominant railway undertaking (incumbent rail operator) on its own/integrated online digital sales channels must be provided to third-party ticketing platforms, indifferently acting as Distributor or as Retailer, in the same quality available (Renfe and Deutsche Bahn decisions).
 - › The definition of the mobility platform, acting as Distributor, presupposes that no new journey planning search has to be carried out for a fare search/booking in the transport provider's systems, irrespectively where the booking takes place (Deutsche Bahn decision).
 - › As long as no new journey planning search has to be carried out for a booking in the transport provider's systems, it is irrelevant whether the booking takes place in the mobility platform's own technical systems or it is made possible, for example, by being forwarded to the selected transport provider (Deutsche Bahn decision).
3. Comparison of the regulatory requirements and the findings of the antitrust decisions or court judgments under unfair trade law and of the RPR Regulation with the current functions provided by OSDM and the TAP TSI.
 4. Proposals for a compliant OSDM.

3.2. Competition law decisions and national court judgments under unfair trade law

There are three decisions from the European Commission and National Competition Authorities concerning rail ticket distribution.

1. Regarding Renfe's behaviour, the European Commission preliminary concluded that:
 - (i) The full content and RTD which are available on Renfe's own online distribution channels are indispensable for third-party ticketing platforms to create their own product and to be able to exercise effective competition on the downstream market for online rail ticketing services.

- (ii) Renfe's refusal to provide its full content and RTD to independent ticketing platforms would be able to hamper the ability of its actual and potential competitors to compete on the downstream market and, ultimately, eliminate effective competition on that market. In other words, Renfe would be leveraging its position in the upstream market for passenger rail transport services to gain an advantage in the downstream market of online rail ticketing services, where it faces competition from third-party ticketing platforms.
- (iii) Renfe's decision to limit the content and RTD that it provides to third-party ticketing platforms is a commercial decision, not a decision based on an objective justification.

To solve the preliminary competition concerns identified by the Commission, Renfe committed to make available to third-party ticketing platforms all Renfe content and all Renfe RTD that is available or may become available on Renfe's direct digital distribution channels and/or on any Renfe mobility platform. To allow third-party ticketing platforms to prepare their IT systems, Renfe committed to announce at the same time to third-party ticketing platforms and to its mobility platform the inclusion of any new content or RTD and the technical specifications required to adapt their systems. The commitments also contain a non-circumvention clause whereby Renfe commits not to circumvent or attempt to circumvent them directly or indirectly by any action or omission. In particular, Renfe shall not use any unfair, not reasonable or discriminatory technical or commercial measures that would impede or hamper the platforms' ability to access and distribute Renfe's content and RTD.

2. The main elements of the Bundeskartellamt's prohibition decision are the following:
 - (i) Mobility platforms were defined as undertakings that operate an online portal or an app with a search mask for transport offers with which users can plan and organise a trip or journey from A to B by public transport to meet their mobility needs. By displaying the search results, mobility platforms enable users to compare the offers of different transport providers and book them from the search results. The Bundeskartellamt defined the third-party ticketing platform active on the sales side as follows:
 - › it operates an online portal or an app with a search mask for transport offers with which users can plan and organise a journey or trip from A to B by public transport,
 - › it enables users to compare the offers from different transport providers (monomodal or multimodal) and book them from the search results,
 - › users can book tickets or means of transport from the search results.
 - (ii) The Bundeskartellamt defined the following markets:
 - › An upstream market for fares data and timetable data and booking applications for rail passenger transport, where Deutsche Bahn has a dominant position.
 - › A separate upstream market for forecast data (RTD) for rail passenger transport, where Deutsche Bahn has a dominant position.
 - › A downstream market for integrated mobility services, where different mobility platforms of the incumbent railway undertakings and third-party mobility platforms (e.g., Rail Europe, Omio, and Trainline) compete with each other.

- (iii) The Bundeskartellamt defined the third-party ticketing platform active on the sales side as follows:
- › it operates an online portal or an app with a search mask for transport offers with which users can plan and organise a journey or trip from A to B by public transport,
 - › it enables users to compare the offers from different transport providers (monomodal or multimodal) and book them from the search results,
 - › users can book tickets or means of transport from the search results.
- (iv) According to the Bundeskartellamt, an online platform has to fulfil the following characteristics concerning the booking process to be considered a mobility platform:
- › No new journey planning search has to be carried out for a booking in the transport provider's systems,
 - › As long as no new journey planning search has to be carried out for a booking in the transport provider's systems, it is irrelevant whether the booking takes place in the mobility platform's own technical systems, or it is made possible, for example, by being forwarded to the selected transport provider,
 - › The following platforms or sales channels are not covered by the Bundeskartellamt's decision:
 - (a) Mobility platforms for exclusively local and regional offers.
 - (b) Stationary ticket counters (e.g., at railway stations), travel agencies or ticket agencies providing tickets of mainly one railway undertaking.
 - (c) Pure business travel or pure B-2-B platforms.
- The Bundeskartellamt ordered Deutsche Bahn to enter into negotiations with the interested mobility platforms to grant them non-discriminatory access to its RTD. The Bundeskartellamt found that forecast data cover specific needs of the mobility platforms, as they are a key input to various service components of their mobility services, including, in particular, the offer of travel connections.

3. The commitments decision (18.04.2023 – Decision No. 30610) adopted by the Italian Competition Authority (“Autorità Garante della Concorrenza e del Mercato”) considers the issue of the combined sales between long-distance and local fares/tariffs in rail transport ticketing. It enables the private high-speed operator NTV to market Trenitalia's regional and Intercity service tickets in combination with its high-speed services.

The geographic scope of both aforesaid decisions (1) to (3) is limited to the Member States in which third-party ticketing platforms or mobility platforms are active (Spain, Germany, and Italy, respectively) as they address the behaviour of the rail incumbents in these Member States.

The commitments decision of the European Commission concerning Renfe provides guidance in the Union for the assessment of similar abusive conduct of other rail incumbents under Article 102 TFEU.

Furthermore, there are two additional court judgments under the German Act Against Unfair Competition concerning rail ticket distribution, concretely the functions of a journey planner:

4. The judgment of the Higher Regional Court of Frankfurt concerning the non-display of trains of a competing railway undertaking under “fastest connections” in the journey planner application of Deutsche Bahn (DB Navigator App)¹² (21.09.2023 – 6 W 61/23).
5. The judgment of the Regional Court of Hamburg concerning the application of misleading filter options by Deutsche Bahn (01.12.2023 – 315 O 262/18).
 - (i) The problem affecting the journey planning is described as follows: As the result of a timetable search, as a rule, three connections were displayed on the website of Deutsche Bahn and in the DB Navigator App. The underlying algorithm showed the second fastest connections after the absolute fastest connection. Shorter connections were not displayed if their departure or arrival time was before the respective time of the absolute fastest connection. In the case of a one-hour fastest connection, this could mean that a train departing one minute before this connection and travelling for one hour and one minute was not shown at all, while a train departing one minute after it and taking two hours appeared as the second-fastest connection.
 - (ii) According to this judgment, Deutsche Bahn’s misleading filter option “Prefer fastest connections” violates the German unfair trade law if no complete list of fast connections, including competitors’ trains, is displayed from the specified departure time. The failure to display competitors’ trains also infringes Section 12a of the General Railway Act in cases where the customer does not consciously choose the criterion of “fastest connections”.

These competition law decisions and national court judgments under unfair trade law listed (1) to (5) above cover the relevant recent cases concerning online rail ticket distribution that the Agency is aware of.

During the discussions between the European Commission and the Member States on the revision of the TSI Telematics, the findings of the Commission, the Bundeskartellamt, the Autorità Garante della Concorrenza e del Mercato and the national courts shall be taken into consideration in the definition of processes and technical standards underpinning online rail ticketing.

3.3. Requirements of the Rail Passenger Rights Regulation (RPR Regulation)

According to Article 9 (Travel information) and Annex II Part I (Pre-journey information) of the RPR Regulation, railway undertakings, tour operators and ticket vendors offering transport contracts on behalf of one or more railway undertakings have to inform the passenger upon their request and before the trip about, among others, the following pre-journey information and conditions applicable to this trip:

- (i) General conditions applicable to the contract.
- (ii) Time schedules and conditions for the fastest trip.
- (iii) Time schedules and conditions for all available fares, highlighting the lowest fares.
- (iv) Accessibility, access conditions and availability on board of facilities for persons with disabilities and persons with reduced mobility in accordance with Directive (EU) 2019/882, Regulation (EU) No 454/2011, and Regulation (EU) No 1300/2014.

¹² <https://www.rv.hessenrecht.hessen.de/bshe/document/LARE230005099>
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- (v) Availability of capacity and access conditions for bicycles.
- (vi) Availability of seats in first and second class as well as couchette cars and sleeping carriages.
- (vii) Disruptions and delays (planned and in real time).
- (viii) Availability of on-board facilities, including Wi-Fi and toilets, and of on-board services, including the assistance passengers are provided with by staff.
- (ix) Information prior to purchase on whether the ticket or the tickets constitute a through-ticket.

To allow third-party ticketing platforms (ticket vendors and tour operators) to fulfil their information obligation towards passengers, Article 10 (2) - Access to traffic and travel information of the RPR Regulation sets the obligation for the railway undertakings to provide other railway undertakings and third-party ticketing platforms (ticket vendors and tour operators) that sell their services with access to, inter alia, the above mentioned information, as well as to the operations on reservation systems referred to in Annex II Part III.

Article 10(3) of the RPR Regulation requires that this information is distributed and that access is granted in a non-discriminatory manner without undue delay. This implies that all other railway undertakings, ticket vendors and tour operators that sell the railway undertakings' services have access to the same information and functions, with the same quality as the providing railway undertaking, and allowing them to provide at least the minimum information to the passenger, in accordance with Annex II of the RPR Regulation. The non-discriminatory nature of the access and information would therefore not only concern the (vertical) relationship between a railway undertaking and a given third party, where the former would have to give information of the same quality to the latter, but also the (horizontal) relation among third parties, who should all receive the same information from a given railway undertaking.

Concerning the obligation pursuant to Article 10(2) of the RPR Regulation to provide access to the booking system ('attributing systems' according to the TAP TSI) of a railway undertaking, Annex II Part III of the RPR Regulation (Operations regarding reservation systems) states that the following operations (i.e., telematics functions) shall be provided by this railway undertaking to other railway undertakings, ticket vendors and tour operators that sell its services:

- (i) Requests for availability of rail transport services, including applicable fares.
- (ii) Requests for reservation of rail transport services.
- (iii) Requests for partial or full cancellation of a reservation.

According to Article 12(1) of the RPR Regulation, where long-distance or regional rail passenger services are operated by a sole railway undertaking¹³, that undertaking shall offer a through-ticket for those services. For other rail passenger services, railway undertakings shall make all reasonable efforts to offer through-tickets and shall cooperate to that end among themselves.

¹³ RPR Regulation Article 12(1) §2: The term 'sole railway undertaking' shall also include all railway undertakings which are either wholly owned by the same owner or which are wholly-owned subsidiary undertakings of one of the railway undertakings involved.

3.4. Requirements from the TAP TSI

Regulation (EU) 454/2011 (TAP TSI) lays down the legal requirements concerning the interoperability of the data exchange and the used protocols for an interoperable rail system. The requirements comprise the exchange of operational messages, such as for train running information, train forecast information, train delay cause, and path management, as well as information exchange concerning interoperable sales processes, including ticketing. For the comparison purposes, only the part of the information provision and ticketing is taken into consideration:

The following requirements can be extracted from the TAP TSI:

- (i) Railway undertakings shall provide their timetable data equally to other railway undertaking, to third parties, and to public bodies.
- (ii) Railway undertakings shall provide equally their fare data to other railway undertakings and third parties, where a distribution agreement exists, and to authorised public bodies.
- (iii) Railway undertakings shall provide an interface to their booking system to those undertakings, where a distribution agreement exists, providing the following functions:
 - Request/reply about availability,
 - Request/Confirmation of reservation request,
 - Request/Confirmation of partial cancellation request,
 - Request/Confirmation of complete cancellation request,
 - Negative reply.
- (iv) Railway undertakings and ticket vendors shall use common ticketing standards.

Without prejudice to future TSI Telematics, the TAP TSI defines the following actors involved in ticketing and specific terms used within the TSI. For the purpose of this report, only those actors involved in ticketing are taken into account:

Table 1 – Roles as defined in the TSI

Role	Definition
<i>Attributor</i>	<i>Means a company managing an attributing system. May be a carrier.</i>
<i>Authorised Public Body</i>	<i>Means a public authority having a statutory obligation or right to provide members of the public with travel information and also refers to the public authority which is responsible for the enforcement of the RPR Regulation pursuant to Art. 31 (1) of the Regulation.</i>
<i>Distributor</i>	<p><i>Means an undertaking providing legal and technical capacity to issuers to sell rail products and to provide online facilities to customers to buy rail products. The Distributor offers services to issuers by assembling O-Ds carried out by different carriers into complete journeys (journey planning) as required by the traveller. The Distributor may be a carrier.</i></p> <p>In the context of this analysis, it appears necessary to specify the following additional aspects:</p> <p><i>When the products (fares) offered by the Distributor to its customer are subject to availability check or reservation, the Distributor performs such checks through the booking API interfacing with the carrier. The Distributor may apply to the product it distributes a price which is different from the fare provided by the carrier (price computation).</i></p>

Role	Definition
<i>Issuer</i>	<i>Means an undertaking selling the ticket and receiving payment. May be a carrier and/or a Distributor. The issuer is the undertaking indicated on the ticket with its code and possibly its logo.</i>
<i>Retailer</i>	<i>Means a person or an undertaking that sells to the customer a ticket without or with a reservation for a rail service. A Retailer can be a railway undertaking (agent) or an accredited travel agent.</i>

Table 2 – Other terms defined in the TSI and used in distribution

Role	Definition
<i>Availability</i>	<i>Means the information (transport service, type of offer, fare, other service) that can actually be obtained by a passenger at a given point in time, for a specific train. Not to be confused with offer, indicating that a (transport service, type of offer, fare, other service) is offered in the initial planning, but could be sold out and is therefore not obtainable by a passenger at a given time point, for a specific train.</i>
<i>Attributing system</i>	<i>Means an electronic system of the railway undertaking hosting its catalogue of products of transport services for which a transport service provider authorises Distributors to issue travel documents.</i>
<i>Booking (selling)</i>	<i>Means the selling of a ticket with or without a reservation.</i>
<i>Product</i>	<i>Means a type of train with determined types of services (e.g., high speed, bicycle storage places, PRM accommodation, couchette and/or sleeping cars, dining cars, take-away facilities, etc.) which are linked to relevant fares and may be linked to specific conditions.</i>

3.5. Comparison of the RPR Regulation and OSDM

The comparison of the requirements of the RPR Regulation and the implementation of OSDM shows several points, where an alignment is missing. This comprises especially the functions concerning the journey planning and the provision of offers to the passenger. As analysed in chapter 3.3 – Requirements of the Rail Passenger Rights Regulation (RPR Regulation), the information of the Annex II has to be provided by railway undertakings, ticket vendors and tour operators to the passenger.

The function “Journey planning” is included in OSDM in the functions for “Getting and Browsing Trips”. There are three different scenarios possible: the usage of the built-in OSDM journey planner, the provision of the results of an own journey planner to OSDM, or an integrated journey planning and pricing within OSDM.

In the first scenario, the OSDM journey planning is implemented in a HTTPS-call to the function /trips-collection. The function returns trips for a given trip request based on the OJP¹⁴ specification. One of the required parameters is called “Requestor” with the restriction “**The requestor header contains detailed information about who is calling the API. It can include information such as channel, organization, sales unit or workstation id and be used to configure e.g. the fare range provided to the caller.**” The identity of the

¹⁴ <https://www.transmodel-cen.eu/ojp-standard/>
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calling Distributor or Retailer allows the answering railway undertaking to apply a filtering, e.g., to configure the fare range provided, based on the identity of the caller. OSDM cannot guarantee that there is no **misleading filtering applied**.

As second scenario, the trip planner can be implemented by 3rd parties and the result – provided in the OJP format - can be forwarded to the OSDM HTTPS-call “/offers”. This function creates then - based on the journey provided by the caller - the corresponding offers for this journey. There is again the mandatory parameter “Requestor” in place, allowing the filtering based on the caller’s identity. Furthermore, if **timetable data is not made available to third-party Distributors in the same data quality as for the integrated sales channels of the railway** undertakings, such journey planner cannot be built by 3rd parties, thereby preventing them to use this tool to fulfil their obligations of the RPR Regulation. The topic of the timetable data provision in the same quality as for the incumbents’ inhouse channels is not addressed by OSDM. Such **discriminatory practice is not compliant with the obligations** laid down in **Article 10(3) of the RPR Regulation**.

In the third scenario, journey planning and pricing can be obtained in an integrated manner for the timetable and the applicable offers by the call of the function “/offers”. Here again, the usage of the Parameter “Requestor” cannot guarantee that there is no **misleading filtering applied**.

3.6. Business and technical rules of the TAP TSI and OSDM

The Table 3 - shows the comparison between

- (i) the key findings on the decisions from the Competition Authorities and the national court judgments under unfair trade law,
- (ii) the business capabilities of OSDM,
- (iii) those of the TAP TSI.

Table 3 - Comparison of OSDM and the TAP TSI on the basis of key findings from competition cases and national court judgments under unfair trade law

<i>Key findings from competition cases (Art. 102 TFEU) and court judgments under unfair trade law</i>	<i>OSDM</i>	<i>TAP TSI</i>
Comprehensive and transparent journey planning		
The journey planner must deliver the full results of the existing trains journeys, without the application of a misleading filter.	Journey planning is included in the OSDM in the functions for “Getting and Browsing Trips”. For this purpose, a HTTPS-call “/trips-collection” exists, allowing to obtain a collection	The TAP TSI obliges the railway undertakings to deliver the full timetable data of services operated by them as sole or successive carrier. The TAP TSI point 4.2.1 requires the provision of all timetable data,

<i>Key findings from competition cases (Art. 102 TFEU) and court judgments under unfair trade law</i>	<i>OSDM</i>	<i>TAP TSI</i>
	of trips – without fares – for given trip search criteria.	although the function “Journey planning” is not part of the TAP TSI. However, the results of the Journey planner shall follow the provisions of the RPR Regulation Article 9(1) and (2) for the pre-journey passenger information set out in Annex II, Part I.
Full content		
The full content displayed by the dominant railway undertaking on its in-house online sales channel (integrated Distributors) shall be provided <u>in a non-discriminatory manner</u> to third-party ticketing platforms.	Distributor receives an offer for specific trip(s) from the fare provider(s) according to their rules. This is covered by the business process “Getting and Browsing Offers”. For this function a HTTPS-call “/offers” exists, which can be called either by the complete tripSpecification, obtained from the “/trips-collection” call or by a set of tripSearchCriteria, similar to those used for the “/trip-collection” call. The returned information via OSDM API can be pre-processed by the Distributor “ <i>While the combination logic on fares is left to the Distributor, it is recommended to only build and retain offers that are homogeneous (as much as possible) in terms of flexibility and comfort.</i> ”	The TAP TSI point 4.2.2 requires the provision of all fares data to ticket vendors (other railway undertakings and third parties, where a distribution agreement exists, and to authorised public bodies). This enables them in their role as Distributor to assemble O-Ds operated by different carriers into complete journeys as required by the traveller.
Independent journey planning		
Level playing field for ticketing platforms and for railway incumbents shall be ensured (Article 102 TFEU)	OSDM allows for a differentiated processing of the requests to rail undertakings’ API depending on the requesting parties. This is documented in OSDM for the	The TAP TSI ensures by design non-discriminatory access to: (i) data (“minimum travel information”): notably timetable data, fare data, and condition of carriage (ii) booking functions (“operations on reservation

<i>Key findings from competition cases (Art. 102 TFEU) and court judgments under unfair trade law</i>	<i>OSDM</i>	<i>TAP TSI</i>
	<p>parameter “Requestor”¹⁵ of any call to the OSDM API as: “The requestor header contains detailed information about who is calling the API. It can include information such as channel, organization, sales unit or workstation id and be used to configure e.g. the fare range provided to the caller. The content of the string is part of a bilateral contract by the two parties and not standardized by OSDM. It is recommended to encrypt the information transferred.”</p> <p>This constitutes an in-built feature in OSDM to restrict the access to the content.</p>	<p>systems”): availability check, reservation, cancellation.</p> <p>This follows the provisions of the RPR Regulation Article 10(2) relating to access to minimum travel information and to operations on reservation systems.</p> <p>It follows the provisions of the RPR Regulation Article 10(3) relating to non-discriminatory access and ensures a level playing field between the operating railway undertaking on one hand, and on the other hand other railway undertakings, ticket vendors and tour operators.</p>
<p>No new journey planning search has to be carried out for a booking in the transport provider's systems.</p>	<p>OSDM provides an offer-request “/offer” to the Retailer.</p> <p>The offer request might be parameterised using the data for a specific trip, stemming from a journey planner which might be operated by another entity and provide them in the OJP format, containing already the timetable data of possible journeys.</p> <p>This result can be obtained as well by using the call “/trip-collection”.</p> <p>The request of an integrated journey planning and pricing in OSDM API calls, call of the function “/offers” including the tripSearchCriteria, is as well within OSDM. It can be assumed that most of the users</p>	<p>Journey planning is not part of the TAP TSI.</p> <p>The TAP TSI point 4.2.1 requires the provision of all timetable data to ticket vendors (other railway undertakings, public bodies and third parties).</p> <p>This enables them, when they act as Distributor, to assemble O-Ds operated by different carriers into complete journeys as required by the traveller.</p> <p>Together with the fare data this would enable the Distributor to inform the passenger according to the RPR Regulation (e.g., about the time schedules and conditions for the fastest trip and the time schedules and conditions for all available fares, highlighting the lowest fares).</p>

¹⁵

<https://redocly.github.io/redoc/?url=https://raw.githubusercontent.com/UnionInternationalCheminsdeFer/OSDM/master/specification/v3.2/OSDM-online-api-v3.2.0.yml&nocors#tag/Places/operation/postPlaces>

<i>Key findings from competition cases (Art. 102 TFEU) and court judgments under unfair trade law</i>	<i>OSDM</i>	<i>TAP TSI</i>
	<p>of OSDM would prefer this option to provide a combined trip and fare result which simplifies the distribution process.</p> <p>This does not respect the distinction between journey planning and fare information, as requested by the competition authorities.</p>	
<p>As long as no new journey planning search has to be carried out for a booking in the transport provider's systems, it is irrelevant whether the booking takes place in the own technical systems of the mobility platform or if it is made possible, for example, by being forwarded to the selected transport provider.</p>	<p>In case of multi-carrier trips, the booking for the overall trip takes place in the system of the Distributor, whereas the bookings for the specific products (legs) are made in the booking system of the different carriers.</p>	<p>The booking takes place in the attributing system of the Attributor. This function is restricted to those fares subject to a mandatory booking (e.g., IRT) or to yield management.</p> <p>For booking of fares not subject to yield management, the booking takes place directly in the booking system of the Distributor/Retailer.</p>

3.6.1. Comprehensive and transparent journey planning

“The journey planner must deliver the full set of the existing trains journeys, without the application of a misleading filter”.

The problem is based on the biased data processing of the different Journey planners, operated by the different railway undertakings or mobility platforms. This might be a result of the non-availability of high-quality timetable data for those platforms, but there are cases where a misleading filtering is applied by those platforms.

The evidence for this problem has been shown in a recent report published by the MEP Jakob Dalunde: “Simplifying European Ticketing – A chance for a green transformation of public and multimodal transport in the European Union”¹⁶. The case study 1 in this report shows the evidence of such a behaviour, that not all trains are displayed to the customer, but there are further cases, where such a behaviour can be shown. Furthermore, in the decisions [4] and [5] those practices have been forbidden by German courts under the unfair trade law.

3.6.2. Full content

“The full content of the dominant railway undertaking shall be provided in a non-discriminatory manner to third parties”

The problem in OSDM consists in the possibility for the provision of different content by the railway undertaking depending on its sales partner. This leads to a situation, where the customer is limited in its choices by the non-provision of some timetable or fare information by the railway undertaking to 3rd parties. As a result of this discriminatory behaviour, customers are not able to see all possible offers which exist in the market. When third-party ticketing platforms do not receive the full content in the same way as the railway undertaking, it may constitute a discriminatory practice.

The case study 4 in the report¹⁷ shows evidence of this behaviour of booking platforms of railway undertakings and third-party ticketing platforms.

3.6.3. Independent journey planning

“No new journey planning search has to be carried out for a booking in the transport provider's systems”

As stated by the Bundeskartellamt, the definition of mobility platforms presupposes, inter alia, the operation of an online portal or an app with a search mask for transport offers of different transport service providers, i.e., their own journey planning engines should provide their customers with a schedule of their journey. When it comes to pricing and booking of those journeys, a new request shall not be necessary, and the Journey planner response shall be used as input for the pricing of this journey.

The problem inherent in OSDM is that the pricing information for a journey can trigger a change of the underpinning timetable for a trip. This is mainly triggered by the underpinning data quality of different timetable data sources: the timetable data of the journey planner might not be updated with the latest data of the booking system, where usually the most up-to-date timetable data are stored. It can therefore happen that the booking system cannot find the applicable fares for a journey delivered by another Journey planner.

The definition of the Bundeskartellamt of a mobility platform makes clear that it does not matter where the booking takes place technically (linking to the booking system of the carrier or booking in the mobility platform's own booking system), as long as a separate trip search in the system of the carrier is not required (*“solange für eine Buchung in den Systemen des Verkehrsanbieters keine neue Verbindungssuche durchgeführt werden muss”*).

“It is irrelevant whether the booking is made in its own technical systems or, for example, by forwarding it to the selected transport provider, as long as no new connection search has to be carried out for a booking in the transport provider's systems”.

With this definition of mobility platforms (i.e., Distributors), the Bundeskartellamt is agnostic concerning the technical implementation of the booking as such function can use the system of the railway undertaking or the internal booking system of the mobility platform.

From a commercial point of view, there should therefore be no difference where the booking takes place.

From a technical point of view, there could be a difference either or not the use of an external system is required for each of the bookings as such system being external to the Distributor is not under its control.

¹⁷ <https://jakopdalunde.se/wp-content/uploads/2024/03/MDMS-Report-FINAL-WEB-reducedsize.pdf>
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For products not subject to yield management and with fixed fares, this is even not necessary to contact such an external system for each booking.

Such a local booking has some advantages at least for fares which are not subject to yield management:

1. There is no costly online transaction for booking purposes between both systems necessary.
2. There is no risk that the requesting undertaking of the booking could be, by technical means, hindered to respond to their customer requests or to execute the booking on time.
3. It facilitates the operation of the yield management systems of the railway undertaking as the availability check is needed only for those fares which are subject to yield management. The so called “Look-to-Book ratio” – the quotient between the availability requests for the applicable fares and the booking of a ticket – would be significantly lower for the requested attributing system.

The evidence of such a risk is based on the commitments decision of the Commission in the Renfe case, where in SECTION B: COMMITMENTS paragraph 8, clear definitions of the applicable restrictions concerning the “Look-to-Book ratio” are defined.

3.7. OSDM specification not compatible with technical requirements in the TAP TSI

The current specification for OSDM cannot be integrated within the TAP TSI for the following reasons:

- › The management of offers, concept created in OSDM, is under the sole responsibility of the role of Distributor considered as limited in OSDM. An offer management relates instead to the Retailer interface and is not part of interoperability requirements so far defined in the TAP TSI, and is therefore out of scope of the TAP TSI.
- › OSDM misses an in-built functionality obliging for sharing of full content (e.g., detailed product data such as fares) between carriers and Distributors via National Access Points established by Member States pursuant to the MMTIS Regulation. In OSDM, the Distributor can request from the railway undertaking offers or parts of it, which can be biased by the railway undertaking depending on the requesting party. Such possibility for filtering depending on the requesting party should not be made technically possible in OSDM.
- › In OSDM, the role of Distributor is exclusively assigned to railway undertakings, which would be the only contact point for the Retailer, interested in selling rail tickets. Third parties would be limited to the task of reselling rail travel packages, created by the distributing railway undertaking and communicated via the OSDM API.
- › The role of the Issuer is not covered at all in OSDM and is assigned exclusively to the role of the fare provider, i.e., the railway undertaking. This role should be integrated in OSDM and should be possible to have for third parties and railway undertakings indifferently.

3.7.1. Comparison of use cases for OSDM and the TAP TSI

The comparison of the use cases of OSDM and the TAP TSI shows already different functions to be supported by both approaches. Due to the nature of OSDM providing for a direct interface to the booking system of the railway undertakings, the set of use cases and therefore functions in OSDM are broader than the use cases covered so far by minimum interoperability requirements in the TAP TSI.

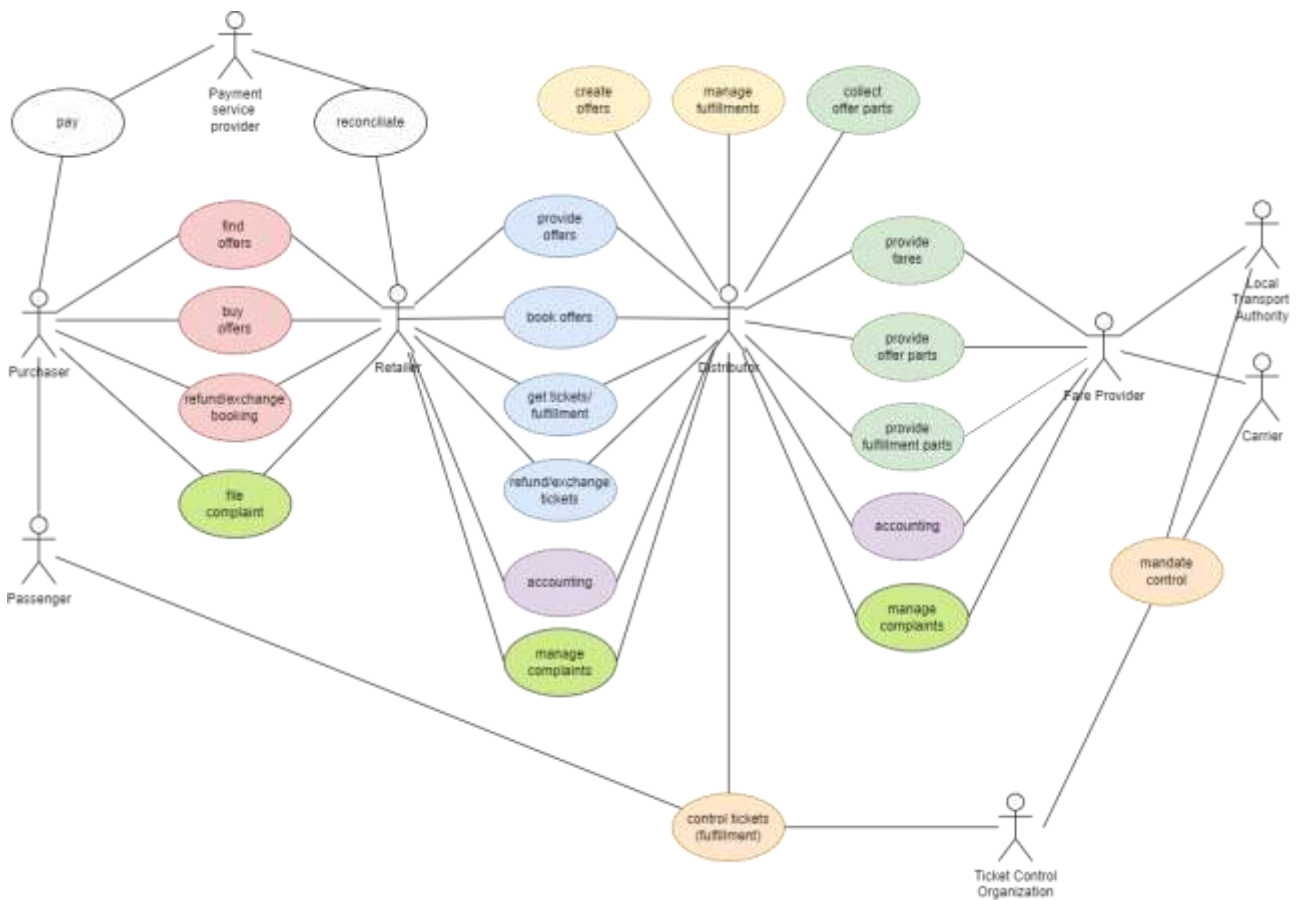


Figure 1 – Use Cases of OSDM (source UIC <https://osdm.io/spec/business-capabilities/>)

As visible on this figure, use cases covered by OSDM are deemed to cover the whole distribution chain from the initial location and trip search up to the submission of complaints to the railway undertakings. Functions of OSDM are designed to serve the interface between the Retailer and the final customer.

There are several communication relationships between the involved actors within OSDM:

1. Communications between customer and Retailer comprises especially the use cases:
 - Find offers,
 - Buy offers,
 - Refund/Exchange booking,
 - File complaints.

All these use cases are driven by communications between the customer and the Retailer via different means (e.g., website, phone, travel agency).

These use cases are subject to the RPR Regulation and do not need so far to be covered by interoperability requirements for telematics applications.

2. Communications between the Retailer and the Distributor:
 - Provide offers,
 - Booking of tickets,

- Get fulfilment (ticketing),
- Refund/exchange ticketing.

Communications between the Retailer and the Distributor takes place by digital means, i.e., by means of telematics applications. This is usually an existing interface, already implemented by many railway undertakings to allow the access to their own products and – if necessary – their inventory by third parties.

OSDM provides for a simplification and harmonisation of this interface.

There is no need identified so far to cover this interface by interoperability requirements for telematics applications. This may be subject to further development of the TSI based on European standards.

3. Communications between the Distributor and the railway undertakings/fare providers:
 - Provide fares (by the railway undertakings),
 - Provide offer parts,
 - Provide fulfilment parts.

OSDM oversimplifies the role of Distributor for above functions.

This interface is covered by interoperability requirements for telematics applications in relation to availability check and reservation only.

4. Communications between the ticket control organisation and the Distributor
 - Control tickets.

This interface is covered by interoperability requirements for telematics applications in relation to the layout for e-tickets (e.g., barcode) and associated security elements.

5. Further use cases such as accounting, the handling of customer complaints or the internal use cases of the Distributor (e.g., create offers, manage fulfilment and offer parts) are not linked with an interoperable communication between the parties and therefore not subject to interoperability.

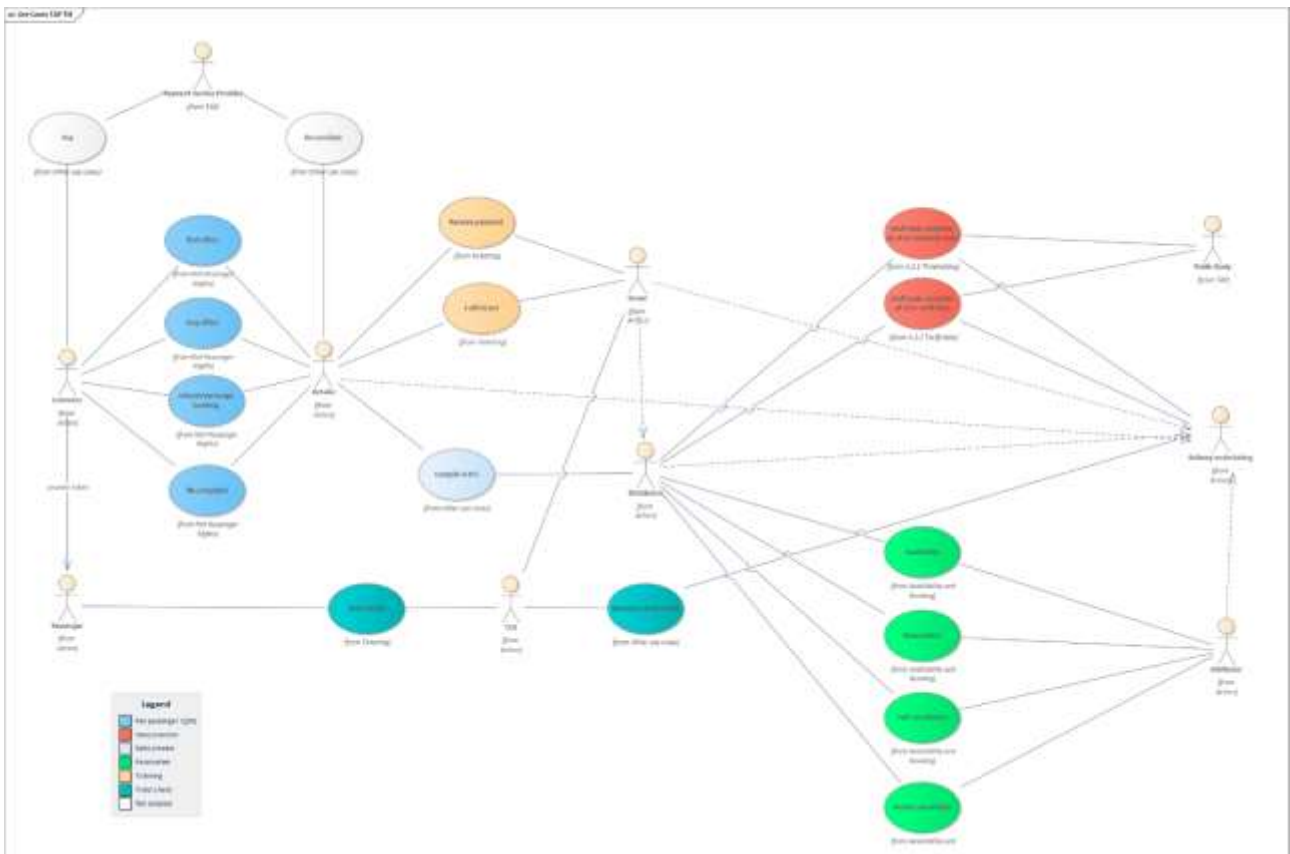


Figure 2 – Use Cases of the TAP TSI

The use cases of the TAP TSI are similar to the ones in OSDM although some are with remarkable differences:

1. Communications between customers and Retailers in the TAP TSI are not different from OSDM. Both are subject to the RPR Regulation.
2. Communications between the Retailers and the Distributors and, as additional role with the Issuer, are different in the TAP TSI compared to OSDM.

The TAP TSI is not dealing with the creation and the management of offers. This is the internal task of the role Distributor and should not be subject to communication with the railway undertaking. The use cases for communications between the Retailer and the Distributor should be limited to:

- Compile O-Ds,
- Fulfil ticket (executed by the role Issuer),
- Receive payment (not further specified in the TAP TSI).

This interface is so far not subject to interoperability requirements in the TAP TSI.

3. Communications between the Distributors and the attributor of the railway undertaking:
 - The booking of a reservation or a yield managed ticket is managed by a message exchange (availability check/ reservation) between the distribution system (operated by the Distributor) and the attributing system (operated by the attributor of the railway undertaking).

4. Communications between railway undertakings and Distributors:
- Provision of timetable data by the railway undertaking to the Distributor,
 - Provision of fare data by the railway undertaking to the Distributor.

This basic parameter is not covered by OSDM. The data provision of timetable and fare data shall be ensured separately between the railway undertaking and the Distributor.

The Table 4 – Use Cases of OSDM compared with the TAP TSI below compares the use cases of OSDM and their relationship with the TAP TSI.

As the table shows, there are several use cases of OSDM that are not in scope of the TAP TSI. The main reason for this is the broader coverage of the OSDM, defining a whole distribution system for railways.

The TAP TSI is focused on the interoperability aspect, where the use cases strictly necessary to define an interoperable railway system are specified. Several functions of OSDM, such as the looking for places or the journey planning are functions of a distribution system, which are based on the implementation of a booking system. The TAP TSI addressed this point by the obligation to oblige the railway undertakings to provide the full dataset of the timetable data and their product (fare) data to other parties. Based on the interoperable data exchange, the distribution system of the Distributor can be supplied with these data to inform the passengers accordingly. The TAP TSI is agnostic to the implementation of those functions.

Table 4 – Use Cases of OSDM compared with the TAP TSI

<i>Resource in OSDM</i>	<i>Description</i>	<i>Regulated in TAP TSI</i>	<i>Comment concerning the implementation of the TAP TSI</i>
/places	Resources to search for places		To be implemented by the Distributor
/trips	Resources to search for trips		To be implemented by the Distributor
/offers	Resources to get bookable offers		To be implemented by the Distributor
/availabilities	Resources to retrieve availability information on places (seats)	X	
/bookings	Resources to manipulate bookings	X	
<i>/bookings /{bookingId}</i>			
/passengers/	Resources to change passengers	(X)	
/purchaser/	Resources to change purchaser		
/booked-offers/	Resources to change pre-booked bookings, e.g., provide place selections		

<i>Resource in OSDM</i>	<i>Description</i>	<i>Regulated in TAP TSI</i>	<i>Comment concerning the implementation of the TAP TSI</i>
/reimbursements	Resources to reimburse unused tickets	X	
release-offers	Resources to release tickets		To be implemented by the Issuer
cancel-fulfillments-offers	Resources to cancel fulfilments offers		To be implemented by the Issuer
/fulfilments	Retrieve fulfilments, e.g., tickets		To be implemented by the role "Issuer", although not specified so far in the TAP TSI
/fulfilments	Confirm a booking and retrieve fulfilments		To be implemented by the role "Issuer", although not specified so far in the TAP TSI
/refund-offers	Resources to get and accept a refund offer	X	
/exchange-operations	Resources to get and accept an exchange offer	X	
/exchange-offers	Dito		
/release-offers	Resources to get, accept or delete a release offer		
/cancel-fulfillment-offers	Resources to get, accept or delete a cancel-Fulfillment offer	X	
/complaints	Resources to create and manipulate complaints	(X)	Proposed in the revised Telematics TSI
/coach-layouts	Returns all coach layouts.		
/reduction-cards	Retrieve reduction card types	(X)	Part of the tariff dataset to be delivered by the railway undertaking
/products	Retrieve product information	X	Part of the tariff dataset to be delivered by the railway undertaking. The TAP TSI requires the delivery of a specific data set with the available products according to the technical document B.1, B.2 and B.3.
/zones	Retrieve zone information	(X)	Part of the tariff dataset to be delivered by the railway undertaking. The TAP TSI requires the delivery of a specific data set with the available

Resource in OSDM	Description	Regulated in TAP TSI	Comment concerning the implementation of the TAP TSI
			products according to the technical document B.1, B.2 and B.3.

Caption:

- X – subject to interoperability to be covered in the TAP TSI,
- (X) – partially covered in the TAP TSI,
- Empty – not subject to interoperability

3.8. Comparison of the architecture of OSDM and the TAP TSI

The architecture of the TAP TSI is described in the Figure 3 – Architecture of TAP TSI). The picture comprises all roles, necessary to implement a TAP TSI compliant distribution system, their relationships, and the TAP TSI points linked with the relationship between the actors.

The picture shows the roles which can be covered as well by a mobility platform.

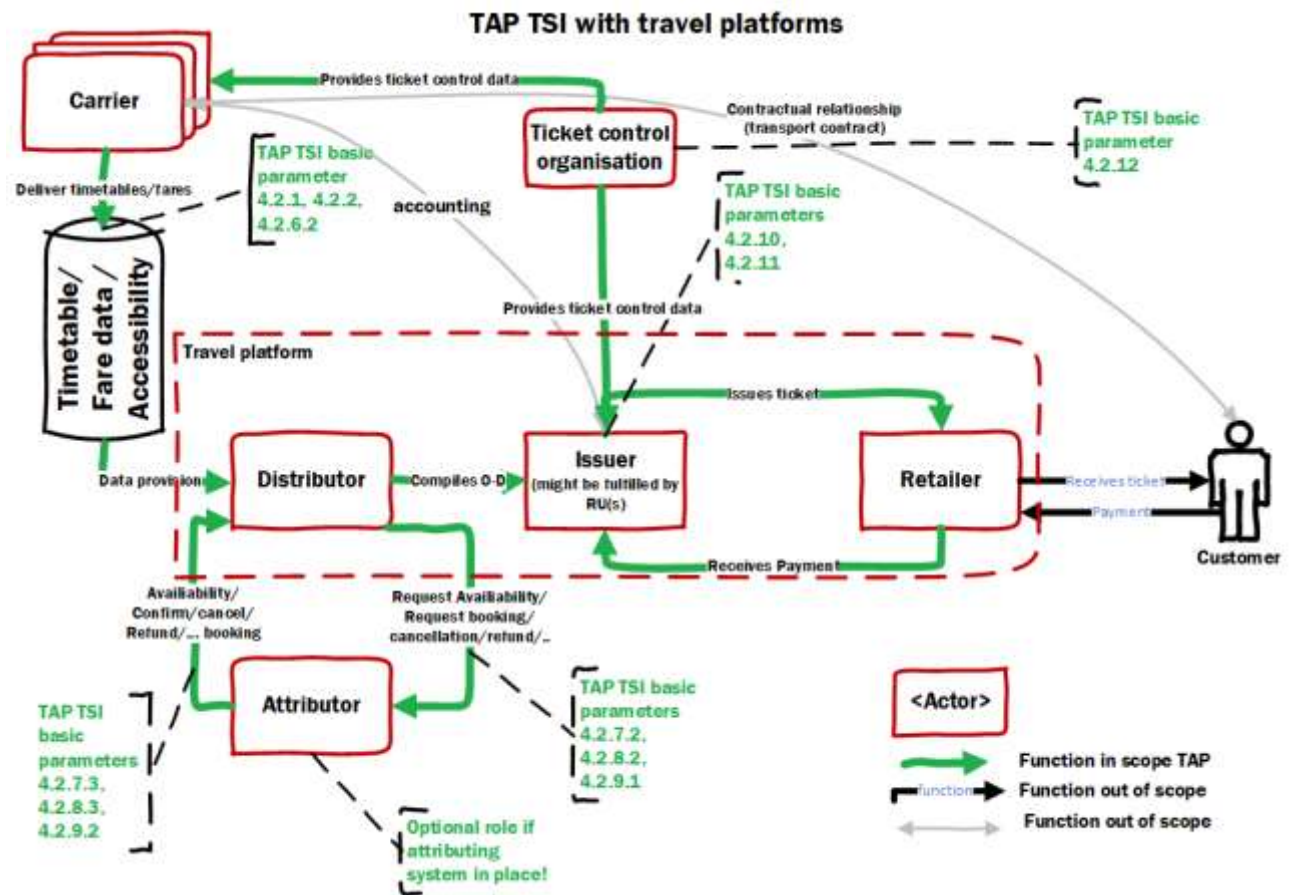


Figure 3 – Architecture of TAP TSI

Concerning the architecture for the direct and indirect distribution there are 3 cases implemented in the current distribution landscape of the railway undertakings. It is shown in Table 5 – Distribution models of railway undertakings.

Table 5 – Distribution models of railway undertakings

Case	Roles of the actors		Description
	for the operating railway undertaking	for the selling undertaking (other railway undertakings or ticket vendors)	
Direct distribution	Carrier, Distributor, Attributor, Retailer, Issuer	N/A	In this model the sales process is handled solely by the railway undertaking. All sales processes are integrated and run inhouse.
Indirect distribution via other railway undertakings	Carrier, Attributor	Distributor, Retailer, Issuer	In this model, the selling railway undertaking is responsible for the collection of the applicable fares for an O-D, the calculation of the price to be paid by the passenger and the issuing of the ticket. This is the usual model used between cooperating railway undertakings. It is as well in place for domestic tickets following when required through a national ticketing scheme (e.g., “Wspólny Bilet” (PL), “One ticket” (UK), Deutschlandtarif (DE), “Direkter Verkehr” (CH)) accepted and issued by any cooperating railway undertaking.
Indirect distribution via third parties	Carrier, Distributor, Attributor, Issuer	Retailer	This is the model usually applied to third-party ticketing platforms, providing them an interface for Journey planning only. Other distribution interfaces for price computation and availability check/reservation are provided by the railway undertakings directly, exposing their sales system APIs directly to third parties or via GDS (e.g., Omio).
	Carrier, Attributor,	Distributor, Retailer,	This is the model targeted by the TAP TSI which allows third-party ticketing platforms to have a complete distribution Capability for journey planning, price

<i>Case</i>	<i>Roles of the actors</i>		<i>Description</i>
	<i>for the operating railway undertaking</i>	<i>for the selling undertaking (other railway undertakings or ticket vendors)</i>	
	Issuer	(Issuer)	computation (based on catalogue of products/fares made available by respective railway undertakings), and availability check/reservation. In some cases, third-party ticketing platforms are also permitted to fulfil the role of Issuer (e.g., Trainline in UK).

The table above shows the main principles of the rail distribution. There are more models available, especially when it comes to the third-party distribution, such as agreed in PSO contracts between the railway undertakings and public authorities. Where relevant, other cases should be subject to a case-by-case analysis.

The technical distribution can be done via the proprietary interfaces provided by the railway undertakings or via the interface provided by GDS.

The architecture of OSDM is the driving factor for the implementation of the different distribution models in the table above.

The picture Figure 4 - OSDM architecture (Source UIC) below shows the high-level architecture of the OSDM. The model shows that the different distribution options for third parties are harmonised to an access to railway internal booking systems. This interface would be harmonised by OSDM, which means that the access to the distribution system of all railway undertakings would be achieved following the same schema and processes for the access to them.

It can be observed in this high-level model that the roles of the Distributor, Contributor and Issuer are exclusively assigned to the railway undertakings. The third-party ticketing platforms are seen as Retailers, but having different possibilities to access fares data, than the railway undertakings providing the railway distribution layer. As this architecture shows, third-party Retailers would not have the same rights as the railway undertakings, such as for the creation of global offers.

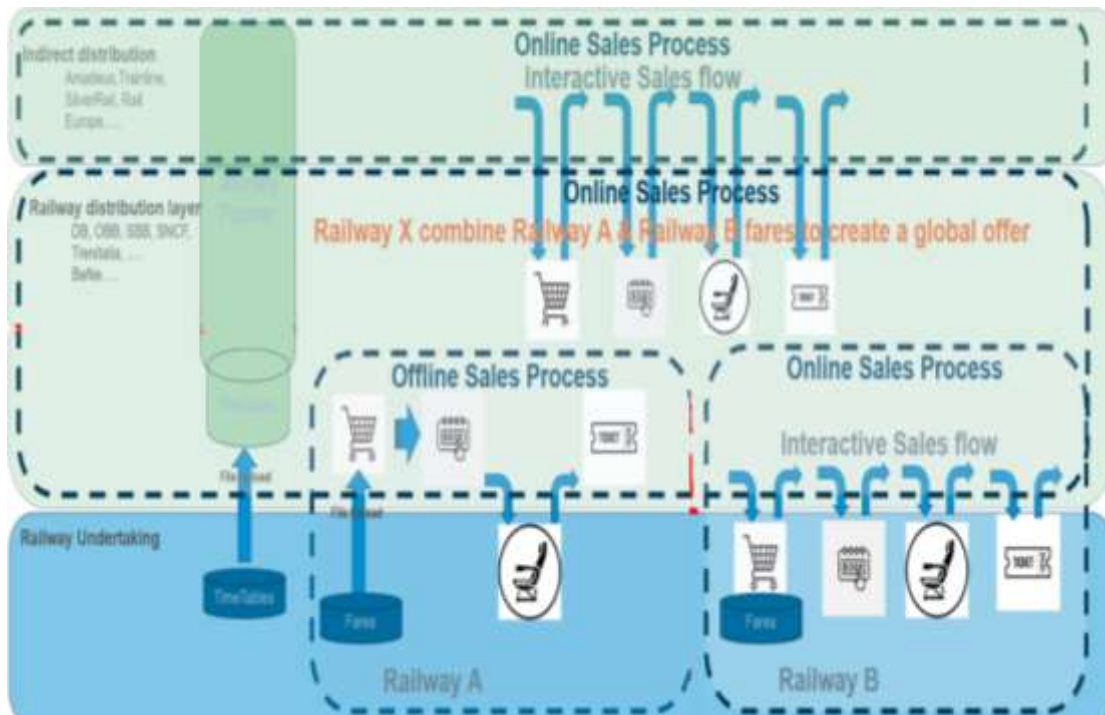


Figure 4 - OSDM architecture (Source UIC)

The model shown in the Figure 5 - Architecture of OSDM based on TAP TSI roles below shows the different roles and functions defined in the TAP TSI as available in the current architecture of OSDM proposed.

The picture shows the boundaries of the current OSDM specification when applying the architecture of the TAP TSI.

This also shows another view of the current OSDM architecture, confirming that the current **OSDM specification reduces the role of any third-party ticketing platform to the role of a Retailer for rail.**

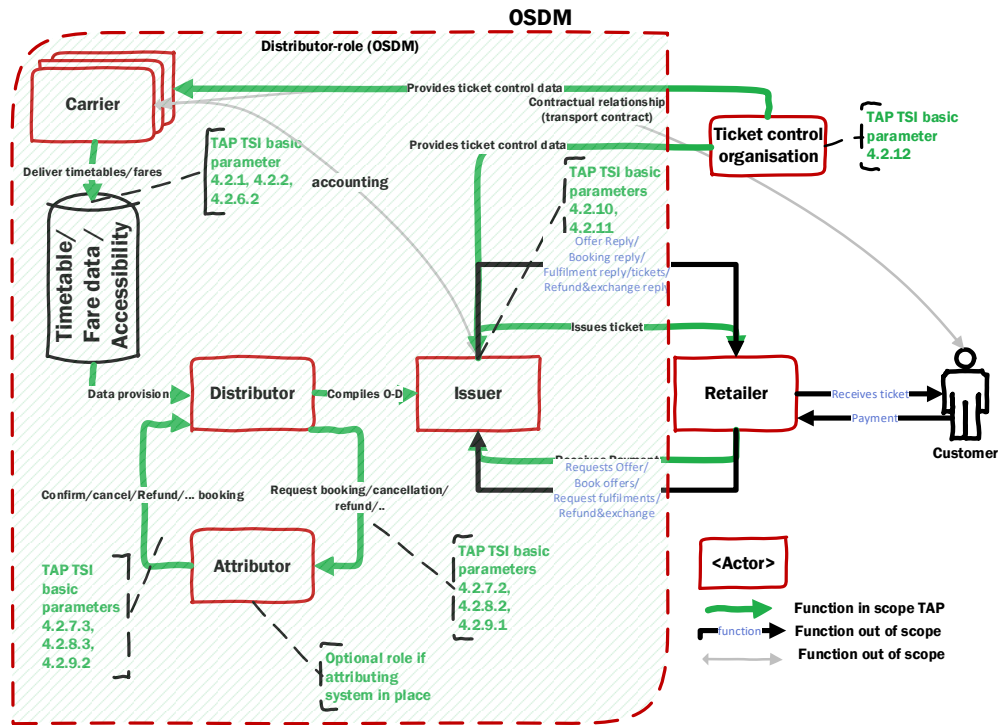


Figure 5 - Architecture of OSDM based on TAP TSI roles

3.9. Risks of the integration of OSDM in European Legislation

The risks of the usage of non-compliant in-built functionalities of OSDM are summarised in the table below.

Table 6 – Risks with OSDM

<i>Findings from competition cases and court judgments under unfair trade law</i>	<i>Risks of the usage of non-compliant in-built functionalities of OSDM</i>
<p>The journey planner shall deliver the full results of all existing train journeys, without a misleading pre-filtering of the results</p>	<p>Journey planning is included in the OSDM in the functions for “Getting and Browsing Trips”. Such an OSDM function allows for the application of misleading filtering.</p> <p>Public availability (i.e., unrestricted) of the timetable data of the trains allows to mitigate this risk.</p>
<p>The full content of dominant railway undertakings shall be provided to third-party ticketing platforms</p>	<p>The Distributor receives an offer for specific trips from the fare providers according to their respective rules. This is covered in OSDM by the business process “Getting and Browsing Offers”.</p> <p>The information returned by OSDM API can be pre-processed by the Distributor <i>“While the combination logic on fares is left to the Distributor, it is recommended to only build and retain offers that are homogeneous (as much as possible) in terms of flexibility and comfort.”</i></p> <p>The term <i>“build and retain offers that are homogeneous”</i> reflects that OSDM allows for the application of filtering rules to the product combinations delivered to the Distributor through the OSDM API.</p> <p>OSDM apply should not allow for the application of filtering rules to product combinations. Such functionality should not be made possible by OSDM.</p>
<p>Level playing field for multimodal platforms and for railway undertakings must be ensured (Article 102 TFEU)</p>	<p>OSDM allows a different processing of the requests depending on the requesting parties.</p> <p>This is documented in OSDM for the parameter “Requestor”¹⁸ of any call to the OSDM API as: <i>“The requestor header contains detailed information about who is calling the API. It can include information such as channel, organization, sales unit or workstation id and be used to configure e.g. the fare range provided to the caller. The content of the string is part of a bilateral contract by the two parties and not standardized by OSDM. It is recommend to encrypt the information transferred.”</i></p> <p>The term <i>“The requestor header [...] can [...] be used to configure e.g. the fare range provided to the caller”</i> reflects an in-built feature in OSDM restricting the access to the content depending on the caller/requestor.</p>

¹⁸

<https://redocly.github.io/redoc/?url=https://raw.githubusercontent.com/UnionInternationalCheminsdeFer/OSDM/master/specification/v3.2/OSDM-online-api-v3.2.0.yml&nocors#tag/Places/operation/postPlaces>

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<i>Findings from competition cases and court judgments under unfair trade law</i>	<i>Risks of the usage of non-compliant in-built functionalities of OSDM</i>
	Such functionality should not be made possible by OSDM.
No new journey planning search has to be carried out for a booking in the transport provider's systems	<p>OSDM provides an offer-request to the Retailer.</p> <p>The offer request might be parameterised using the data for a specific trip, stemming from a journey planner operated by another entity and provide them in the OJP format, containing already the timetable data of possible journeys.</p> <p>The request of a reply integrating timetable and fare is possible as well., This does not respect the distinction between journey planning and fare information. In this case the offer filtering according to point 2. is applicable.</p> <p>Such functionality should not be made possible by OSDM.</p>
As long as no new journey planning search has to be carried out for a booking in the transport provider's systems, it is irrelevant whether the booking takes place in the own technical systems of the mobility platform or it is made possible, for example, by being forwarded to the selected transport provider	<p>In a multi-carrier trip, the booking for the overall trip takes place in the system of the Distributor, whereas the bookings of the specific products (legs) are made in the booking system of the different carriers.</p> <p>There is a risk that due to, among others, technical problems or filtering, the booking would not be successful in the booking/attribution system of the requested carrier.</p>

3.9.1. Architectural risks

As the architecture of **OSDM is developed in a manner that reduces the role of third-party ticketing platforms**, potentially as well as the role of some other railway undertakings, to the role of a Retailer, the **current architecture of OSDM is not fully in line with some of the findings from the competition cases or national court judgments** under unfair trade law. **It is therefore required to be adapted.** This is also confirmed through the following points:

- Access by third parties to the full content of the dominant rail carrier, corresponding to one of the legally binding commitments in the Renfe case, is at risk if the same API is used by 3rd parties to obtain the offers for the timetable and the fare offers. As shown in the judgments [4] and [5], which are based on the German unfair trade law, such a potential misprocessing of the available timetable information is used in the existing journey planners of Deutsche Bahn and were found to be misleading.
- Ensuring that the full content is made available to 3rd parties might be even more difficult. In particular if the calculation of the available products by the railway undertakings/fare providers including their fares is necessary. Here a discriminatory behaviour of the undertaking operating the distribution system is possible, as documented in OSDM **“The requestor header contains detailed information about who is calling the API. It can include information such as channel, organization, sales unit or workstation id and be used to configure e.g. the fare range provided to the caller.”**

Considering OSDM allows for the combination of tickets, there should be an in-built functionality implementing Article 12(1) of the RPR Regulation to ensure offering a through-ticket by default when the long-distance or regional rail passenger services combined are operated by a sole railway undertaking¹⁹.

¹⁹ RPR Regulation Article 12(1) §2: The term ‘sole railway undertaking’ shall also include all railway undertakings which are either wholly owned by the same owner or which are wholly-owned subsidiary undertakings of one of the railway undertakings involved.

4. Conclusions

There is a substantial risk that the implementation of the current OSDM architecture and of its proposed booking process concerning the access to booking interfaces and to yielded fares are in conflict with the guidance provided by competition cases or national judgments under unfair trade law.

4.1. Architecture and the access to booking interfaces

Under the TAP TSI, all timetable data and fares data shall be provided by the railway undertakings to those platforms. This is already required by the TAP TSI points 4.1.1 and 4.1.2 covering the provision of timetable data and fares data without restriction to ticket vendors (other railway undertakings and third-party ticketing platforms). The data provision allows Distributors to feed their own algorithms (journey planner and pricing engine) with the data to inform their customers about the timetable and the applicable fares and to allow issuers to issue railway tickets.

The booking process defined in OSDM should be divided into two separated processes as follows, which should be handled by the Distributor without any distinction either it is the operating railway undertaking or a third-party ticketing platform:

- (i) a process “Journey Planning” under the responsibility of the platform,
- (ii) a separate process “Booking”.

This is reflected in the TAP TSI architecture clearly dividing the roles of the actors concerning the passenger information and ticketing (Distributor, Issuer, Contributor, Retailer) and it is missing in the current OSDM architecture proposed.

The TAP TSI addresses the split of responsibility between the functions of “Journey planning” and “Booking” by the obligation to provide timetable data and fare data to 3rd parties, to be used by them for “Journey Planning” and “Pricing”. The high-level architecture of the TAP TSI looks like as in the picture below:

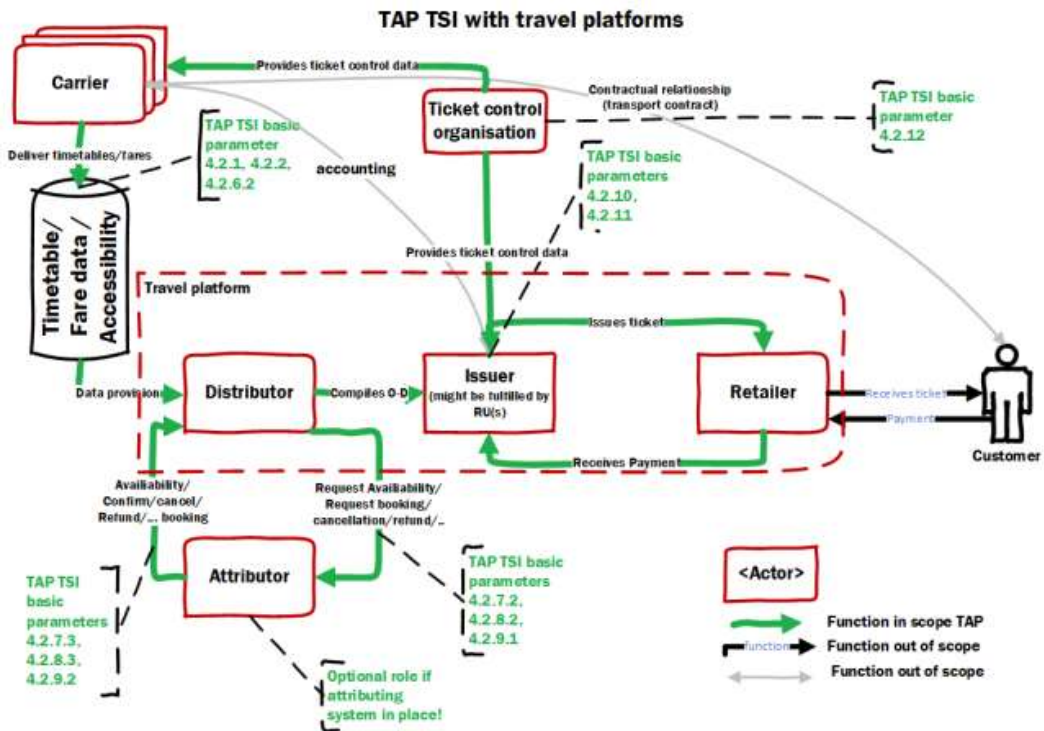


Figure 6 - TAP TSI architecture to be implemented

The architecture of the booking interface as proposed in the **current OSDM architecture** is **not in line with the approach requested by the Bundeskartellamt** by which mobility platforms should use their own journey planning engines and no new journey planning search should be carried out for a booking.

4.2. Required measures for the possible integration of OSDM as an ERA Technical Document into European legislation

Despite the concerns explained in the previous chapters, there is a strong wish of a part of the rail sector to integrate the OSDM specification as technical document of the TAP TSI into the European legislation. To achieve this, the following points must be addressed from a technical point of view:

(a) Common understanding that the current OSDM specification provides for a Retailer interface only

A common understanding of the architectural role of OSDM to third parties, willing to play only the role of a Retailer as defined by the TAP TSI, shall be achieved. The Retailer interface is not in scope of TAP TSI so far, as this is not considered so far as the priority for interoperability but may trigger further development of the TAP TSI as it is part of EC request for follow-up TSIs revision.

Further development of the TAP TSI would address this interface based on available European standards issued by the European Standardisation Organisations and providing for technical specifications for corresponding API interface (i.e., Transmodel based API to be delivered by CEN TC 278 WG3).

(b) The implementation of OSDM as it is currently proposed suggests limitations to the role of Distributor which shall be checked against the findings from competition and unfair trade cases concerning the functional split of the responsibilities (e.g., ‘Journey Planning’, offer creation).

The OSDM functions requesting for the journey and for the pricing of the journey together shall be split into two separated requests.

For the separation of journey request and fares request, existing European standards, such as **CEN/TS 17118 (OJP)**, shall be used.

(c) The proposal for a single reference standard for sharing timetable data and fare data using the European standard CEN/TS 16614 (NeTEx) (which supports yielded fares) shall be integrated into OSDM.

OSDM shall use as data model the existing data models of Transmodel/NeTEx **to facilitate the integration of rail into the existing public transport data exchanges.**

NeTEx is an ESO standard already mandated by the MMTIS Regulation.

It is to be noted that the Swedish implementation of OSDM – the only live implementation of OSDM to date – relies on NeTEx as format for data exchange.

(d) The functional requirements of availability and reservation functions (availability request/reply, reservation request/reply, partial cancellation request/reply, full cancellation request/reply) of the TAP TSI shall be integrated into OSDM to allow for compliance with Article 10 (2) and (3) of the RPR Regulation.

The availability shall be checked for one or a list of fares applicable for one or more O-Ds.

The product catalogue to be checked shall be made available (via National Access Points established by Member States pursuant to the MMTIS Regulation) in advance by the railway undertaking, managing those fares.

The selection of the O-Ds and the corresponding products/fares belongs to the Distributor, it can indifferently be a railway undertaking or a third-party ticketing platform acting in the function of a Distributor.

The use of this function should be limited to those fares subject to yield management.

- (e) **OSDM should include an in-built functionality implementing Article 12(1) of the RPR Regulation to secure a through-ticket by default when combining rail passenger services operated by a sole railway undertaking²⁰.**
- (f) **Further work on OSDM should contribute to the development and the maintenance of European standards issued by the European Standardisation bodies, notably CEN** for multimodal ticketing. Outputs may be considered to further enhance the TAP TSI with a specification for a booking API beyond current API specifications for availability and reservation only.

²⁰ RPR Regulation Article 12(1) §2: The term ‘sole railway undertaking’ shall also include all railway undertakings which are either wholly owned by the same owner or which are wholly-owned subsidiary undertakings of one of the railway undertakings involved.

ANNEX 1 – Decisions of Competition Authorities and national court judgments under unfair trade law

#	Case
[1]	EU Commitments decision adopted on 17/1/2024 regarding Renfe: https://competition-cases.ec.europa.eu/cases/AT.40735
[2]	Bundeskartellamt decision adopted on 26 June 2023 regarding Deutsche Bahn: https://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Entscheidungen/Missbrauchsaufsicht/2023/B9-144-19.pdf?__blob=publicationFile&v=4
[3]	Italian Competition Authority commitments decision adopted on 18 April 2023 regarding Trenitalia: https://en.agcm.it/en/media/press-releases/2023/5/A551-A551B and https://content.mlex.com/Attachments/2023-05-03_1AU2AVC39Y6LYK6X%2fA551-A551B%2bchiusura.pdf
[4]	Hamburg Regional Court judgment of 1 December 2023 against Deutsche Bahn: https://www.zeit.de/mobilitaet/2023-12/deutsche-bahn-schadensersatz-flixbahn
[5]	Higher Regional Court of Frankfurt judgment of 21 September 2023 against Deutsche Bahn: “Show fastest connection” is misleading , https://ordentliche-gerichtsbarkeit.hessen.de/presse/schnellste-verbinding-anzeigen-ist-irrefuehrend