PCS CB TAF/TAP TSI API: main differences with PCS EC TAF/TAP TSI API and the Sector Handbook

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Version history

Version	Release date	Author	Main changes
0.1	18.04.2023	Nicolas Jasinski (RNE – PCS interface TAF/TAP TSI domain expert)	First draft of the document
1	21.12.2023	Nicolas Jasinski	
2	31.10.2025	Nicolas Jasinski	File name updated to align more with the tile of the document

Purpose of this document

The purpose of this document is to present the main differences of the PCS CB TAF/TAP TSI API compared to the PCS EC API and the content of the Sector Handbook with the following objectives:

- Adjustments required in PCS CB API in order to consider the involvement of more than one pair of companies involved along the international journey of a train.
- Particularly to the companies connected to PCS EC API: visibility on the changes to be expected and potentially adjustments to be done in their existing implementation.

1. PCS CB API adjustments to the Sector Handbook

1.1. Harmonisation activities

- **Sector Handbook**

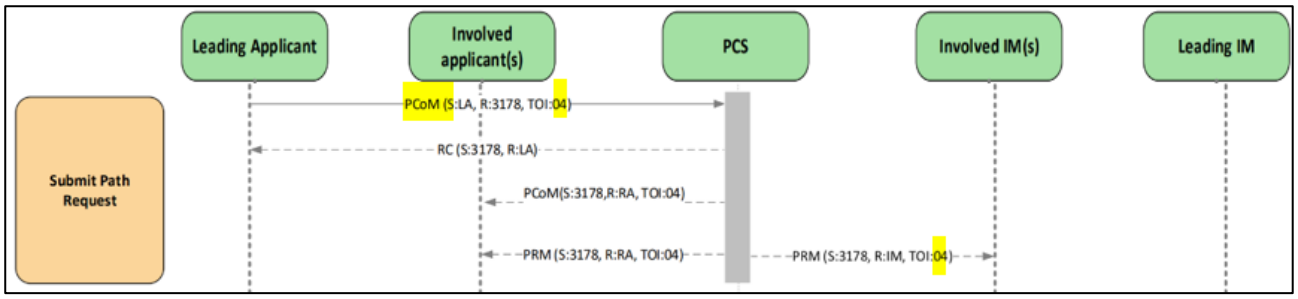
The topic is briefly addressed but is not described (e.g., no message sequence).

- **PCS CB**

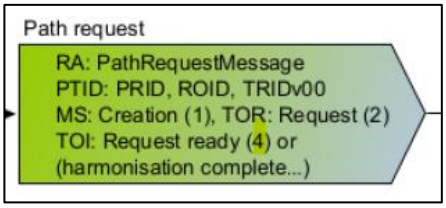
The harmonisation activities are performed using sector messages (Path Coordination Message and Object Info Message). This approach is already used in PCS EC. Please see below some of these activities (list non-exhaustive):

- Applicable for applicants and IMs:
  - The leading agency, LA or LIM depending on the phase, triggers the promotion of the Reference of the Train and all associated objects to the next phase (note: this action is not possible in phases where the harmonisation of the objects is mandatory, PR or PA depending on the phases). The Type of Information Code included in the PCoM is the code included in the ERA message for the corresponding use case. Examples:
    - Submission of harmonised PRs:

PCS CB

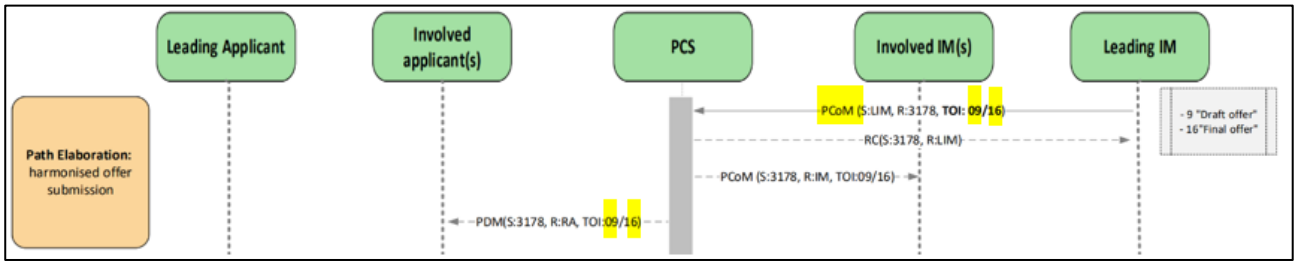


Sector Handbook

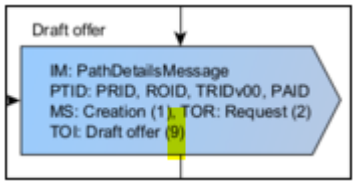


- Submission of harmonised PAs:

PCS CB

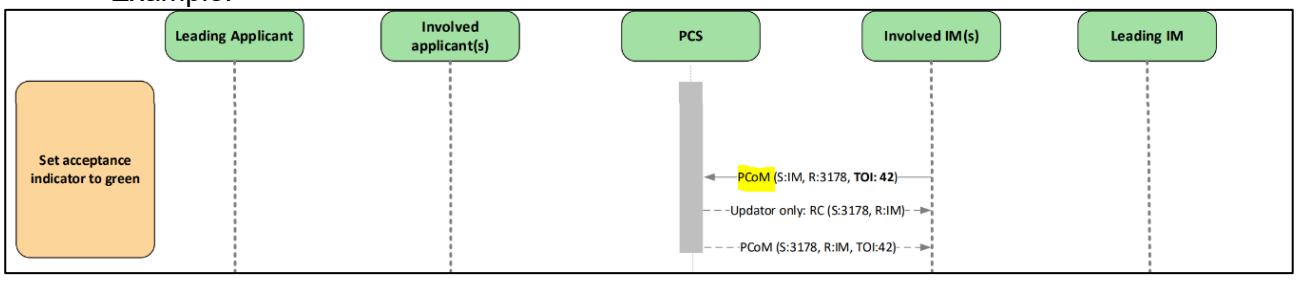


Sector Handbook

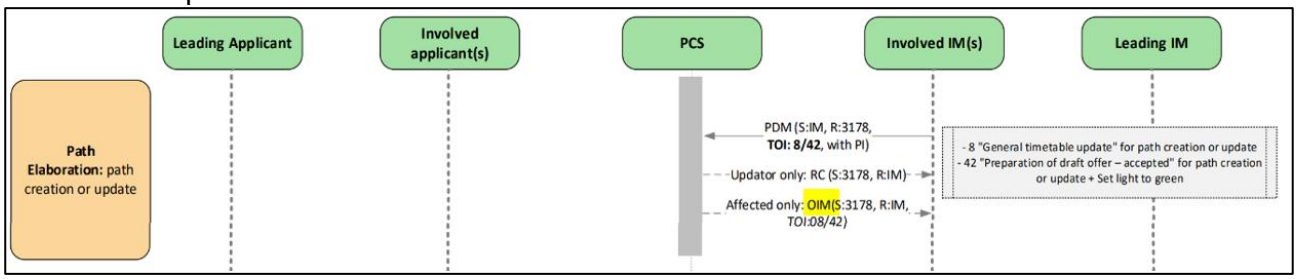


- Between applicants involved in a Reference Train:
  - PR preparation status from each RA to all involved RAs (e.g., path request preparation completed, path request preparation not possible)
  - Timetable information from each RA to all involved RAs as a result of a PR creation or update.
  - Offer review status from each RA to all involved RAs (e.g., offer accepted, offer ejected)

- Between IMs involved in a Reference Train:
  - PA preparation status from each IM to all involved IM (e.g., offer preparation in progress). Example:



  - Timetable information from each IM to all involved IMs as a result of a PA creation or update. Example:



- Applicable for applicants and IMs:
  - Leading agencies trigger TOI of the official messages

1.2. Path Modification process, Path Alteration process and Path Cancellation process

- **Sector Handbook**

The processes are described for a direct communication between one RA and one IM. The communication with and the potential involvement of other companies involved along the journey of the train is not described. The harmonisation activities in this process type are not described neither.

- **PCS CB**

The processes are based on the Sector Handbook description and are completed with specifications defining the notification, involvement and harmonisation of other involved companies when required.

2. PCS CB API: main differences compared to PCS EC TAF/TAP TSI API

2.1. Processes

2.1.1. Path Cancellation process

- **PCS EC**

The process is not implemented.

- **PCS CB**

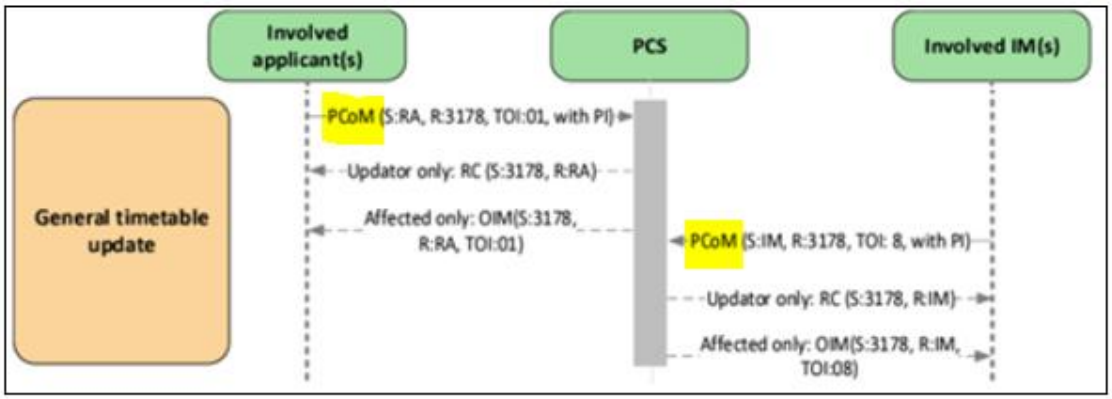
The process will be implemented.

2.2. Messages

2.2.1. Usage of the ERA message types (official ERA schema)

- **PCS EC**
  - Inbound communication (from applicants and IMs to PCS): the Path Coordination Message type is used and not the ERA messages.

    Example: an IM sends a draft offer using a Path Coordination Message instead of a Path Details Message. The use case in PCS is named “General Time Update” and is applicable to applicants and IMS for all timetable update communication. Example:

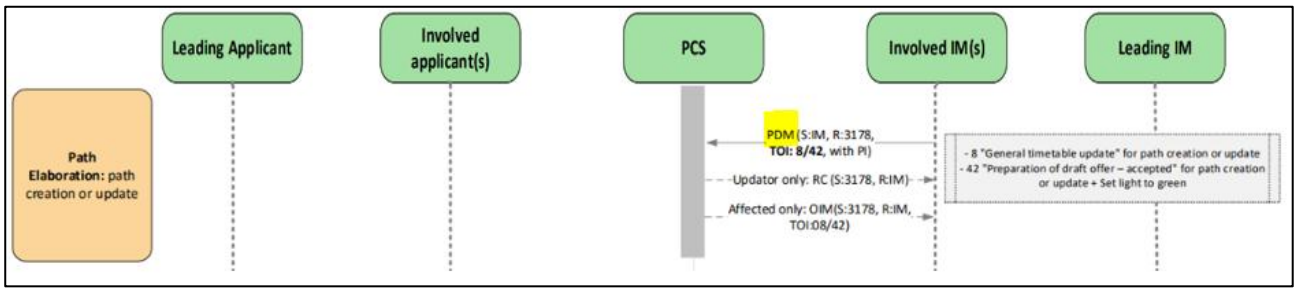


- Outbound communication: based on the ERA message types.

- **PCS CB**

- Inbound communication: use of the ERA message types for the use cases described in the sector handbook. The Type of Information Code used in the messages differ from the one included in the corresponding message in the Sector Handbook (see section 1.1).

  Examples:
  - Creation and update of a PR with a Path Request Message
  - Creation and update of a PA with a Path Details Message. Example:



- Outbound communication: based on the ERA messages (no changes compared to PCS EC)

2.2.2. ErrorMessage after submission of the Path Request Message

- **PCS EC**

The Responsible Applicant is not informed about the acceptance indicator of the IM set to red after sending an ErrorMessage to PCS after receiving a problematic the Path Request Message. The other involved IMs are informed about the red acceptance indicator. The description of the error is registered in the comments section. The Leading IM can reject the dossier and the Leading Applicant can withdraw it from Path Elaboration.

- **PCS CB**

The Responsible Applicant is informed about the acceptance indicator of the IM set to red after sending an ErrorMessage to PCS after receiving a problematic the Path Request Message. The

other involved IMs are informed about the red acceptance indicator. The description of the error is registered in the comments section. The Leading IM can reject the dossier and the Leading Applicant can withdraw it from Path Elaboration. The Leading Applicant can be contacted by the Responsible Applicant affected by the error.

2.2.3. Reference Train enters Path Elaboration – Path Coordination Message

- **PCS EC**

When a dossier enters the Path Elaboration phase, PCS sends a Path Coordination (Type of Information: 7). It indicates the promotion of the dossier to this phase.

- **PCS CB**

When a dossier enters the Path Elaboration phase, PCS will not send a Path Coordination (Type of Information: 7). The IM shall rely on the Path Request Message which indicates that the Reference Train is in Path Elaboration phase.

2.3. Objects

2.3.1. Train Object Model

- **PCS EC**

The Reference Train ID and Route object are not handled in PCS and is therefore not included in the messages.

- **PCS CB**

Handling of the Reference Train ID and Route object in PCS and integration in the messages as per the Sector Handbook.

Prerequisite: approval of PCS CBB of RNE functional proposal to implement the handling of the Route object in PCS CB.

2.3.2. Usage of the Reference Train

- **PCS EC**

This object is not handled. The Case Reference (the dossier) is the umbrella object to which all objects of the dossier are directly or indirectly linked.

- **PCS CB**

The Reference Train is the umbrella object to which all objects of the dossier are directly or indirectly linked. The Case Reference(s) is only linked to the Reference Train and does not have any directly

link to the other objects related to the Reference Train. The Leading Applicant is the owner of a Case Reference and have the rights to link Reference Trains to a Case Reference.

2.3.3. Structure of the object identifier – Company element

- **PCS EC**
  - Inbound messages:
    - RNE's company code is included in the Identifier element (all other information in the message corresponds to an existing object in PCS): the existing object is updated.
    - The sender's company code is included in the Identifier element (all other information in the message corresponds to an existing object in PCS): a new object is created in PCS.
  - Outbound messages:
    - The object has been created via PCS GUI: RNE company code is indicated.
    - The object has been created via PCS TAF/TAP TSI interface: the company code of the company that created the object is included.

- **PCS CB**

Regardless of the message flow's direction and method to create the object (GUI or via the API), the company code of the company owning the object will be indicated in the Company element as per the Sector Handbook requirement.

2.3.4. Relation between the Path object and the Path Request object

- **PCS EC**

The relation (or the "link") between the Path Object and the Path Request object does not exist.

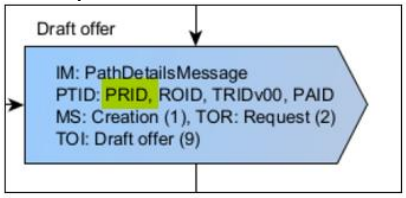
Example: in the Path Details message sent from PCS to the applicant (based on the inputs provided by the IM), the PR ID of the path request to which the offer is a response to is included together with all other PR IDs of the dossier (the business case, or named "Reference Train" in PCS CB) as a Related Planned Transport Identifiers.

- Path Details Message:
  - Planned Transport Identifiers: TR ID, CR ID, PA ID
  - Related Planned Transport Identifiers: all other PA IDs and PR IDs belonging to the same territory as the PA ID listed in Planned Transport Identifiers element

- **PCS CB**

The relation between the Path Object and the Path Request object will be stored in PCS and the PR ID of the path request to which the offer is a response will be indicated as per the Sector Handbook.

Example:



2.3.5. Creation of PA objects by PCS

- **PCS EC**

When a dossier enters some specific phases (e.g., Path Elaboration), PCS automatically creates PA objects as copy of the PR objects included in the requests submitted by the applicants. This behaviour was a help mostly for GUI users, but the creation of the PA object should be triggered by the IM.

- **PCS CB**

When a Reference Train enters some specific phases (e.g., Path Elaboration), PCS will not automatically create PA objects as copy of the PR objects. A functionality will allow the GUI user of an IM to create a PA as a copy of a submitted request, but the creation will be triggered by the action of the user.

2.4. Elements

2.4.1. Content of the Administrative Contact Information element

- **PCS EC**
  - Inbound messages: the information contained in the AdministrativeContactInformation is not handled. The information is not visible on PCS GUI nor sent to the recipient of the content of the message.
  - Outbound messages: the reference to TIL is contained in the element. Note: TIL is the application between RNE CI and PCS for the “translation” between TAF/TAP TSI messages and PCS web services.

```
<ns1:AdministrativeContactInformation>
    <ns1:Name>TIL (on behalf of sender=3178)</ns1:Name>
</ns1:AdministrativeContactInformation>
```

- **PCS CB**
  - Inbound messages: the information provided by the sender in the element will be handled by PCS CB and therefore visible on PCS GUI and also included in the following message part of the message sequence (if applicable).
  - Outbound messages: the contact details defined by the user/company that created the content of the message (either via the GUI or the interface) will be included in the element.

2.4.2. Time zone information

- **PCS EC**

The default time zone is UTC +01:00. If no time zone is indicated in a message sent to PCS, UTC +01:00 is applied.

- **PCS CB**

The time provided in the Time element is the local time of the corresponding location without indication of the time zone. This requirement will be clarified in an upcoming sector handbook release.

The applicable time zone is the one applicable of the owner IM. Owner IMs that may own locations in other time zone (e.g., in another country) will be contacted by RNE for specific handling.