Barcoded Ticketing for Public Transport
Questionnaire

Introduction

Seamless multimodal and multi-operator travel across Europe is a major goal of EU transport policy. This goal is based on environmental arguments (less pollution, sustainability, EU climate targets), economic arguments (less energy consumption, less congestion) and social arguments (making it easier for citizens to work, study, and do business across borders).

One of the facilitators of this European transport is the development of a standard to integrate electronic ticketing for all public transport modes in all countries of Europe.

This standard shall elaborate an EU-wide interoperable barcode and is one component in a whole series of initiatives to arrive at seamless travel in Europe. To be effective, this standard should include all surface transport.

This work is in line with the objectives of current and upcoming EU legislation.

CEN/CENELEC oversees the barcode standardization process and has created a BT4PT workgroup.

Actual work in the BT4PT workgroup

To support the usage of the interoperable barcode and to secure the standard to be future proof, the BT4PT workgroup is now collecting as much real-life information as possible (both current and planned) to define the “payload” of the barcode.

This payload is the compilation of the contractual data that is needed to do all manual or automated operations on the tickets/contracts like validation, control and aftersales operations.

The focus is on collecting the information stored in/on tickets, like validity date/time, zone where a ticket is valid, class, … as well as the restrictions (terms) and conditions to the validation and inspection activities in ticketing in Public Transport. Tickets can be of any kind; we do not limit the info collection to actual barcode tickets only.

The method adopted by the BT4PT workgroup to collect this information is to share a questionnaire with as many relevant stakeholders as possible. This information will then be treated to define a dataset that is suitable for all parties.

If you think another (partner) company could be relevant to receive this questionnaire too, just inform us so we can include them in the panel.

BT4PT Questionnaire

This questionnaire has been created to get as much information as possible about the way ticketing is organized in your company.

We are interested in all the elements that are used on your ticketing/ in your ticketing data, and also in the size of the elements (e.g. how are the stops, stations, zones, … encoded on your ticket) and the number of times each element is potentially repeated in one ticket (e.g. the list of zones that can figure on one ticket).

Apart from that, we are looking for "exotic data-elements", elements that are very specific – they often exist in the rules & conditions part of the data – and need to be represented in the dataset on the ticket.

Please, start your answer with the following data: Company name, area where the company is active (operating region) and a contact name, position, email, and phone.

The questionnaire focuses on…

1. **Where**: the geographical info in the ticket
2. **When**: the validity period of the ticket
3. **Who**: the (kind of) passenger, extra passenger data/luggage/dog/bike…
4. **What – including Rules & Restrictions**: class, specific kind of ticket, …
5. **Extra's**
6. **Additional information**

We would like to receive your answers before the 31st of August at **questionnaire@BT4PT.eu**

You can use the same e-mail if you have any questions.

In the text, when elements are written in UPPERCASE, these refer to the Transmodel vocabulary.

Space is provided to answer on the page following each question.

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1. Where

- Network flat fare: Can make a single trip anywhere on the network regardless of the number of stops (usually time limited).
- Line flat fare: Can make a single ride anywhere on a single line of the network (usually time limited).
- Point-to-point fare: Can travel between two designated stops (optionally matrix or distance based).
- Zonal fares: Fare is charged for use of a specified number of zones (but all zones are considered similar)
- Zone-to-zone fare: Fare is charged for use of a zone and for each specific zone to zone combination.
- Zone sequence fares: Fare is charged for use of a zone and for use of a sequence of zones.
- Honeycomb zones (i.e. non-radial zones, quite common in Germany)

Please indicate which method/combination of method your ticketing is supporting and indicate how the parameters themselves are defined (coding, sizing, number of occurrences e.g. max. number of zones in a contract).

Feel free to elaborate your answer or add missing use cases.

2. When

USAGE VALIDITY PERIOD describes a broad time limitation of access rights, especially passes. It may include a ‘standard duration' of validity (1 day, 1 month, ...), time limitations (‘start date’ and ‘end date’, ‘start time’ and ‘end time’), or a combination of both.
Is the tickets validity immediately, at a fixed date, certain period, a first use within a range, ...
What is the presale window: how long in advance can one buy a ticket?

Please indicate which validity period(s) your ticketing is supporting and indicate how the parameters themselves are defined (coding, sizing, number of occurrences e.g. max. number of days the ticket is valid).

Feel free to elaborate your answer or add missing use cases.

3. Who

- USER PROFILE describes the social profile of a customer. It is generally used to allow discounts based on age, gender, profession, social status (e.g. student, retired, unemployed), Passenger with Reduced Mobility, dog, etc...
- RESIDENTIAL QUALIFICATION is often based on the location of the residence of the user (within the functional urban area, within the country, ...)
- COMMERCIAL PROFILE is used to describe customer categories depending on their commercial relations with the operator (frequent traveller, amount of purchase by a company, etc.). It is generally used to allow discounts, for example for staff.
- GROUP TICKET describes the number and characteristics of persons possibly entitled to consumer access rights as a group.

Please list which different categories / profiles your ticketing is supporting and indicate how the parameters themselves are defined (coding: e.g. how are specific age categories defined, number of occurrences e.g. max. number of persons on a single ticket).

Feel free to elaborate your answer or add missing use cases.

4. What (including “Rules & Restrictions”)

- Class (number of classes and their specificities)
- COMMERCIAL NAME OF THE PRODUCT e.g. monthly pass, weekend ticket, exhibition ticket (incl. entrance), tourist 3-day ticket, …
- ROUND TRIP (if existing) expressing the properties relating to single or return trip use of an access right.
- USAGE VALIDITY PERIOD describes a broad time limitation of access rights, especially passes. It may include a ‘standard duration' of validity (1 day, 1 month, …), time limitations (‘start date’ and ‘end date’, ‘start time’ and ‘end time’), or a combination of both.
- FREQUENCY OF USE describes the limitation of an access right, depending on frequency of use during a VALIDITY PERIOD. For instance, a product is offered at a special fare if it is used more than 50 times in a month.
- INTERCHANGING expressing the limitations on making changes within a trip.
- MINIMUM STAY, expressing the details of any minimum stay at the destination required to use the product.
- STEP LIMIT, a geographical parameter limiting the access rights by counts of stops, sections or zones.
- ROUTING, expressing limitations on which routes may be used with an access right.
- TYPEs of PROOF REQUIRED classifies the forms of proof needed to prove eligibility for a USER PROFILE (e.g. student card, driving license, etc.).

Please list the different products that are supported and indicate how the parameters and restrictions are defined (e.g. how is the entrance to the exhibition in the example above stored in the ticket).

Feel free to elaborate your answer or add missing use cases.

5. Extras

- Is the ticketing (partially) account based, and if the ticket info is on a server how this is organized?
- Do the tickets hold all the info, or is additional contact with a database needed to retrieve more data?
- Is the ticketing pre-pay or post-pay?
- Aftersales rules: Is changing / cancellation of tickets possible + how?
- Organisation related parameters:
    - Which OPERATORs or GROUPs of OPERATORs may be used.
    - Which VEHICLE MODEs and submodes may be used.
- Network related parameters:
    - Which LINEs, GROUPs OF LINEs or NETWORKs, and VEHICLE MODEs may be used.

Please list any existing additional conditions/restrictions and indicate how they are defined (size, coding, max. number of occurrences the element on a ticket).

Feel free to elaborate your answer or add missing use cases.

6. Additional Information

On which media are tickets issued currently?

- e.g. security paper (with holograms), security background or other non-copiable elements, non-secured paper, mobile phone, smart card, magstripe, ...
- barcode, secured paper, NFC, ...

Who else sells or checks your tickets, and what is your relationship to them?

In case there are subcontractors involved in the sales or checking process “Relationship” must be read as “do they use your API, or your app, or your hard- and software, or do they use their own platforms?”

Do you issue customer loyalty/discount cards, and what information do you need on these?

Only if you want these cards to have a barcode