

DIN CEN/TS 16614-3:2016-08 (E)

Public transport - Network and Timetable Exchange (NeTEx) - Part 3: Public transport fares exchange format; English version CEN/TS 16614-3:2016, only on CD-ROM

Contents	Page
European foreword.....	5
Introduction	6
1 Scope.....	7
1.1 General.....	7
1.2 Fares scope.....	7
1.3 Transport modes.....	7
1.4 Compatibility with existing standards and recommendations	8
2 Normative references.....	8
3 Terms and definitions	8
4 Symbols and abbreviations	25
5 Use Cases for Fare Exchange	25
5.1 Purpose.....	25
5.2 Business context.....	25
5.2.1 Fare planning process	25
5.3 Actors and use case types.....	31
5.3.1 General.....	31
5.3.2 Use Cases for Fare Policy	33
5.3.3 Use Cases for Organisation of Fare Policy Usage	33
5.4 Excluded Use Cases.....	33
5.5 Use Cases	34
5.5.1 Collection of Use Cases	34
6 Generic Physical Model and XSD mapping rules.....	61
7 Public Transport Fares – Conceptual and physical data model	61
7.1 Conceptual Model overview	61
7.1.1 Functional Domains	61
7.1.2 Data Model Overview.....	63
7.1.3 Main Concepts	65
7.2 Fare Model dependencies	70
7.2.1 NeTEx Part3 Use of Version Frames.....	74
7.2.2 Fare Frame.....	75
7.3 Reusable Fare Components.....	92
7.3.1 Fare Zone.....	92
7.3.2 Fare Facility.....	112
7.4 Fare Structure.....	114
7.4.1 Fare Structure – Model dependencies	114
7.4.2 Common Fare Structure.....	115
7.4.3 Geographical Fare Structure.....	122
7.4.4 Time Fare Structure	132
7.4.5 Quality Fare Structure.....	140
7.4.6 Fare Structure Element.....	150
7.4.7 Distance Matrix Element	178
7.4.8 Validable & Controllable Elements.....	191
7.5 Access Rights Description	202
7.5.1 Access Right Parameters	204

7.5.2	Fare Product	314
7.6	Pricing	356
7.6.1	Fare Calculation Parameters	356
7.6.2	Fare Price	371
7.6.3	Fare Table	382
7.7	Sales Description	400
7.7.1	Fare Sales Distribution	400
7.7.2	Fare Travel Document	411
7.7.3	Fare Sales Package	418
8	Sales Transactions	440
8.1	General	440
8.2	Sales Transaction – Model dependencies	440
8.3	Sales Transaction Frame – Conceptual MODEL	443
8.3.1	Sales Transaction Frame – Physical Model	444
8.3.2	Sales Transaction Frame – Attributes and XSD	444
8.3.3	Fare Contract	445
8.3.4	Retail	456
8.3.5	Sales Transaction	461
Annex A	(normative) Extensions to NeTEx Part1 & 2	475
A.1	Introduction	475
A.2	Enhancement to Part 1 Model	475
A.2.1	Organisation delegation relationship	475
A.2.2	Alternative Name Package	476
A.2.3	Booking Arrangements	478
A.2.4	Booking Arrangements	479
A.2.5	Generic Assignment Package	479
A.2.6	Generic Layer Model	481
A.2.7	Generic Validity Condition Model	485
A.3	Enhancement to Part 2 Model	486
A.3.1	Vehicle Journey Assignment	486
A.4	Alignment of Part 1 and Part 2 Attributes	489
A.4.1	Part 1 - Framework –Versions & Validity MODEL	489
A.4.2	Part 1 - Framework – Responsibility MODEL	492
A.4.3	Part 1 - Framework – Location MODEL	494
A.4.4	Part 1 - Framework – Reusable Components MODEL	500
A.4.5	Part 1 - Network Description MODEL	513
A.4.6	Part 1 - Tactical Planning Components MODEL	519
A.4.7	Part 1 - Fixed Objects MODEL	530
A.4.8	Part 2 – Journey, Times & Service MODEL	547
Annex B	(informative) ERA – TAP TSI annexes B1, B2 and B3 mapping	562
B.1	Summary of mapping of B1 (NRT) fares	562
B.2	Summary of mapping of B2 (IRT) fares	562
B.3	Summary of mapping of B3 (Special) fares	563
Annex C	(informative) NeTEx Passenger Information Query model	564
C.1	PiQuery	564
C.1.1	PI Query dependencies	564
C.1.2	PiQuery	568
Annex D	(informative) How to go from a trip (from NeTEx Part1&2) to a fare ?	610
D.1	Passenger Trip	610
D.1.1	Passenger Trip Model	610

D.1.2 Passenger Fare Model.....	618
Annex E (informative) Proposed model for Parking Tariff.....	622
E.1 Parking Tariff	622
E.1.1 Parking Tariff – Conceptual MODEL	622
Bibliography	627