TfNSW TransXChange Implementation Specification 2.5.12

Release Notes

Version 1.0

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UNCONTROLLED WHEN PRINTED

Important Message

Specification Governance

Document details

Release Date	
Author	Operational Systems, Infrastructure & Place Division
Owner	Transport for NSW
Approval	Technical Design Authority
Document no.	TBA
Version	1.0

Version History

Version	Author	Issued	Changes
1.0	PTMS Project Team	24/10/2019	• Release notes to support TfNSW TransXChange Implementation Specification 2.5.12

Distribution List

Program	Group	Business Unit	Responsibility
PT Real-time Working Group	PT Real-time Working Group Members	TfNSW	Governance
Sydney CBD & South East Light Rail Project Team	Rail Systems	Sydney Light Rail Delivery Office	Review and distribution to Project teams
Sydney Metro Project Team	Metro Product and Integration	Sydney Metro Delivery Office	Review and distribution to Project teams
Newcastle Light Rail Project Team	Infrastructure & Services	Newcastle Transport Program	Review and distribution to Project teams
Parramatta Light Rail Project Team	Infrastructure & Services	Parramatta Light Rail Program	Review and distribution to Project teams

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1 Introduction

1.1 Document Purpose

This document provides Release Notes to accompany the TfNSW TransXChange Implementation Specification 2.5.12 and provides a summary of all changes implemented for this release.

1.2 Overview

- Replacement of many occurrences of word 'international' with 'standard', in reference to the original standard UK TransXChange schema.
- Update of textual references to TfNSW version of schema, with references to TfNSW-specific extension only.
- Changes of use or word 'attribute' to prevent confusion XML-based technical meaning of word 'attribute' – many instances of 'attribute' replaced with 'element'.
- Removal of reference to TODIS.
- Addition of explicit TfNSW Rules (with explanatory and identifying text) – these are primarily setting of elements as mandatory, whilst they are optional in TXC standard.
- Addition of rules regarding Operator Timetable Submission, e.g. 90-day minimum etc.
- Re-wording of introduction to section 'TfNSW TransXChange Schema', to better describe how schema listing (and TfNSW specification) should be considered and used.
- Removal of Use-cases

1.3 Detailed Changes

1. Prefix of '@' added to strictly signify attributes
2. Removal of Container terminology. Schema elements now organised as presented in the XSD, i.e. hierarchically as elements (some groups included)
3. Colour coding of schema listing reduced to 3 colours:
   a. Blue (parent elements when header bar useful for readability)
   b. Grey (group names when group name useful for readability)
   c. Yellow (for extension headers)

4. *AnnotatedStopPointRef*
   a. Removal of path element *Descriptor* before *CommonName*.
5. *RouteSection*
   a. Reordering of *RouteLink/Direction* and *RouteLink/Distance* elements.
   b. Addition of *@id* attribute to *RouteLink/Track/Mapping*
   c. Addition of optional *Instructions* structure
   d. Addition of top-level extensions element *RouteSectionExtension*
6. *Route*
   a. Removal of *RouteSections* container
7. *LicensedOperator*
   a. Removal of redundant path specification *OperatorLicence* for *LicenseNumber* and *LicenceClassification*
   b. Change specification of *LicenseHolderNames* container, to *LicenseHolderNames* element.
   c. Expanded *ParentOperatorRef*, was originally presented as an element, but is a structure with child elements, *OperatorRef* and *OperatorShortName*.
   d. Replaced use of *OperatorContact* group with *LicensedOperatorContact* group.
   e. Reordered fields inside *LicensedOperatorContactGroup*.
   f. Corrected element *OperatorAddresses* to include sub-element *CorrespondenceAddresses*.
   g. Added *apd* prefix for (address) *Line* elements.
   h. Corrected specification of *Line*(s) within *CorrespondenceAddress*, to only list once in specification, but provide (by producer) between two and five times.
   i. Change specification of *Garages* container, to *Garages* element.
   j. Corrected specification of *Line*(s) within *Garage*, to only list once in specification, but provide (by producer) between two and five times.
   k. Addition of top-level extensions element *OperatorExtension*

1.3 Detailed Changes cont.

8. *JourneyPatternSection*

    a. Removal of specification of *JourneyPatternTimingLinks* container.

    b. Corrected specification of *JourneyPatternTimingLink/From* group,

    to *JourneyPatternTimingLink/From* element.

    c. Corrected specification of *SequenceNumber* element as *@SequenceNumber* attribute.

    d. Corrected specification of *id* element as *@id* attribute.

    e. Changed specification of *JourneyPatternTimingLink/Notes* container,

    to *JourneyPatternTimingLink/Notes* element.

    f. All changes made to *JourneyPatternTimingLink/From also apply to JourneyPatternTimingLink/To.*

9. *Service*

    a. Change specification of *Lines* container, to *Lines* element.

    b. Corrected listed order of *LineColour* group and *LineExtension.*

    c. Addition of top-level extensions element *LineExtension*

    d. Corrected specification of *OperatingProfile* group, to *OperatingProfile* element.

    e. Removed redundant *ServiceClassification* element header specification.

    f. Corrected order of *VehicleEquipment* sub-elements, *AccessVehicleEquipment*, *PassengerInfoEquipment*,

    and *WheelchairVehicleEquipment*.

    g. Addition of top-level extensions element *VehicleTypeExtension*

    h. Removed redundant specification of *ServiceInfo* path under *ServiceInfo* group

    i. Removed redundant specification of *ServiceDescription* path under *ServiceDescription* group

    j. Removed redundant *ServiceComponent* element header specification.

    k. Removed redundant specification of *StandardService* path under *ServiceComponent* group

    l. Changed specification of *StandardService/JourneyPatterns* container,

    to *StandardService/JourneyPattern* element.

    m. Inclusion of *JourneyPattern/OperatingProfile* for optional override of *OperatingProfile*.

    n. Changed specification of *JourneyPattern/JourneyPatternSectionRefs* container,

    to *JourneyPattern/JourneyPatternSectionRefs* element.

    o. Addition of top-level extensions element *ServiceExtension*

    p. *Removal of NSWRegionalNames container.*

    q. Changed specification of *ServiceExtension/NSWRegionalNames* container,

    to *ServiceExtension/NSWRegionNames* element.

1.3 Detailed Changes cont.

10. *VehicleJourney*

   a. Correction of overall elements and groups of elements, e.g. *Operational* group, *VehicleJourney* group, etc.

   b. Inclusion of *DestinationDisplay*

   c. Inclusion of *Operational/Block/Description* element.

   d. Corrected specification of *OperatingProfile* group, to *OperatingProfile* element.

   e. Inclusion of optional *StartDeadRun* and *EndDeadRun* structures.

   f. Changed specification of *Notes* container, to *Note* element.

   g. Inclusion of *VehicleJourneyTimingLink* group with *From* and *To* elements for optional *JourneyPattern* override.

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1.4 Document References

1.4.1 TransXchange Artifacts

TfNSW provides this document in conjunction with the TfNSW TransXChange Implementation Specification as a specification group to describe the inter-operation between planned services and the real-time monitoring of services.

Table 1- TransXChange Document Locations

TransXChange Schema Guide	Available from: https://www.gov.uk/government/collections/transxchange
TfNSW TransXChange Implementation Specification	Published on TfNSW's web page at: https://www.transport.nsw.gov.au/system/files/media/documents/2019/TfNSW-TransXChange-Implementation-Specification.pdf or https://www.transport.nsw.gov.au/industry/asset-standards-authority/reference-material (under Telecommunications)

1.4.2 References to Other Standards

1.4.2.1 SIRI

The primary SIRI artefacts are illustrated below. The most generic of these, pictured at left, are the international standards defined in the SIRI Schema Guide, and underpinned by the SIRI XML Schema Definition (XSD).

Table 2 – SIRI Document References

Document Name	Network Location or Documentation Link
SIRI standard specification	http://www.transmodel-cen.eu/standards/siri/ https://www.vdv.de/siri.aspx Additional information about standard SIRI is included in section "About SIRI Standard Specification"
TfNSW SIRI Implementation Specification (this document)	Published on TfNSW's web page at: https://www.transport.nsw.gov.au/system/files/media/documents/2019/SIRI-2.0---TfNSW-Implementation-Specification---Using-SIRI-at-TfNSW.pdf or https://www.transport.nsw.gov.au/industry/asset-standards-authority/reference-material (under Telecommunications)
SIRI XSD Schema for TfNSW extensions	https://www.transport.nsw.gov.au/industry/asset-standards-authority/reference-material (under Telecommunications)
TfNSW SIRI Use cases	**Error! Hyperlink reference not valid.**https://www.transport.nsw.gov.au/industry/asset-standards-authority/reference-material (under Telecommunications)
TfNSW SIRI sample XML	https://www.transport.nsw.gov.au/industry/asset-standards-authority/reference-material (under Telecommunications)

1.4.2.2 TransModel

The overlay of TransXChange and SIRI atop the TransModel 6.0 conceptual data model is intended to maximise the range of available application vendors providing software support for public transport. TfNSW seeks to guide within the above standards, localising minimally.

Table 3 - TransModel Document Location

Document Name	Network Location or Documentation Link
Transmodel CEN v6	CEN V6 http://transmodel-cen.eu/

1.5 Security Classification

This document is unclassified.