1 Overview

1.1 To meet the journey planning requirements of the 2012 Olympics there is a need to exchange data between the ODA and Transport Direct about venues, along with data about the expected queue times at the different sites. Data will be exchanged as XML documents using a limited subset of the prCEN *NeTEx* XML schema. This note summarises which specific *NeTEx* elements should be used. See the *NeTEx* documents for further details.

1.2 It is envisaged there will be two types of XML document produced. (i) an occasional exchange of overall details about the venues, their locations and their accessibility, and. (ii) a more frequent exchange of information about the latest expected queuing delays , These will both use the same NeTEx schema, populating different elements.

2 References

2.1 This note accompanies several more detailed documents and examples that provide further technical details. The key documents and resources are as follows.

Identifier	Name	Description
1A10001	NeTEx Stop & Venue Data - UK NaPTAN3.0 PROFILE	Description of model for representing Venues and Stop places in NeTEx 3
1A12301f	NaPTAN 3.0 using CEN NeTEx / IFOPT Practical Subset - Schema Guide. “NaPTAN-X	Description of NeTEx / NaPTAN 3.0 subset XML schema elements relating to Venues and Stop places
NeTEx Schemas	netex_publication.xsd [v0.96]	XML schema as XSD
NeTEx UML Model	NeTEx UML [v2011.01]	NeTEx UML diagrams as EA Model

2.2 The examples are found in the XML schema and are accompanied by a document

Identifier	Name	Description
IA09901f	Accessible Journey Planning – Olympic Venues.	Description of how venues are modelled using NeTEx using OPK as example
NeTEx Site Example OPK-3	Olympic Site Basic Navigation Example	Example of XML for OPK site with basic required elements for venues and Navigation paths
NeTEx Site Example OPK-4	Olympic Site Process Example	Example of XML for OPK site delay data updates with required elements

3 Venues and Sites

3.1 The basic venue model for representing access links to an Olympic Site is shown in Figure 1~~Figure 1~~. It distinguishes entrances, and venues within a park, along with the links between them.

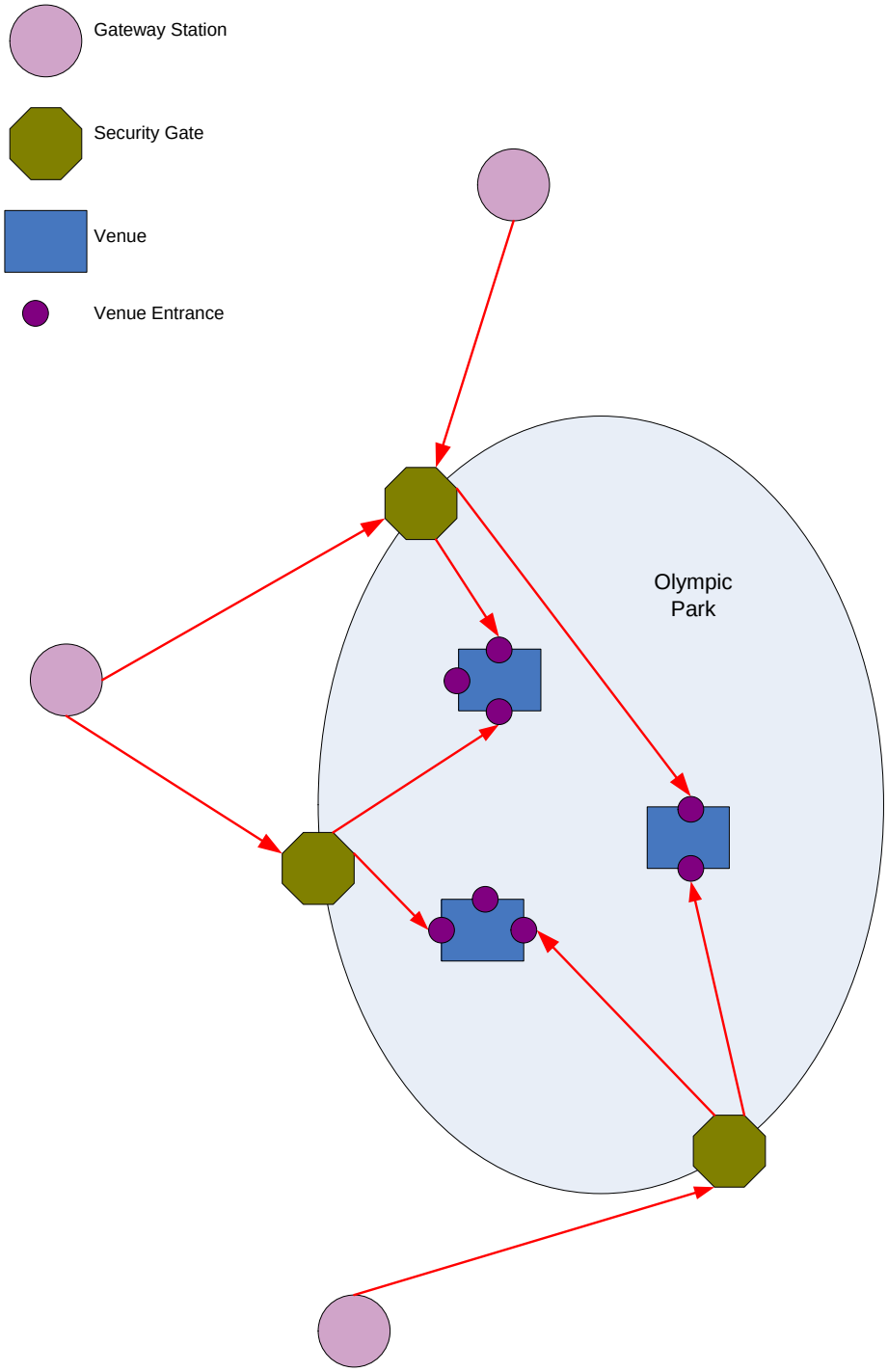

Figure 1: Linking gateway stations to gates and venues

4 Figure 2: Simplified NeTEx Venue model for London2012

5 Queue times

5.1 For the games it is recognised that most spectators will experience delays through queuing on the way into and out of events. It is important that spectators expect this so build it into their travel planning so they do not suffer the disappointment of missing part of events or connections home.

5.2 The ODA and LOCOG are modelling this queuing delay time. It is expected that the queuing delay time at a park gate will vary depending on the time of day and the events at that venue on that day.

5.3 The ODA will, through the SJP, publish this queuing delay time and have requirements to be able to update the queuing time in the light of experience once the games are operational. ODA updates to queue delay times will occur no more than daily.

5.4 To publish the Queue times the same NeTEx schema can be used, with just the queue times populated. See the NeTEx Example OPK-4

6 NeTEx model

6.1 The basic NeTEx representational model for venues that underlies the XML schema is shown in Figure 2. The basic correspondence with an Olympic Site as described in Figure 1~~Figure 1~~ is as follows

- Park (Parent ***PointOfInterest***)
- Venues (Child point ***PointsOfInterest***
- Entrances, (***PointOfInterestEntrance***)
- Paths between entrances and venues (**NavigationPaths)**
- Queuing delays (***CheckConstraints*** with ***CheckConstraintDelay***. In addition there is a means of stating when a Queuing delay applies ***AvailabilityCondition*** and ***Timeband***

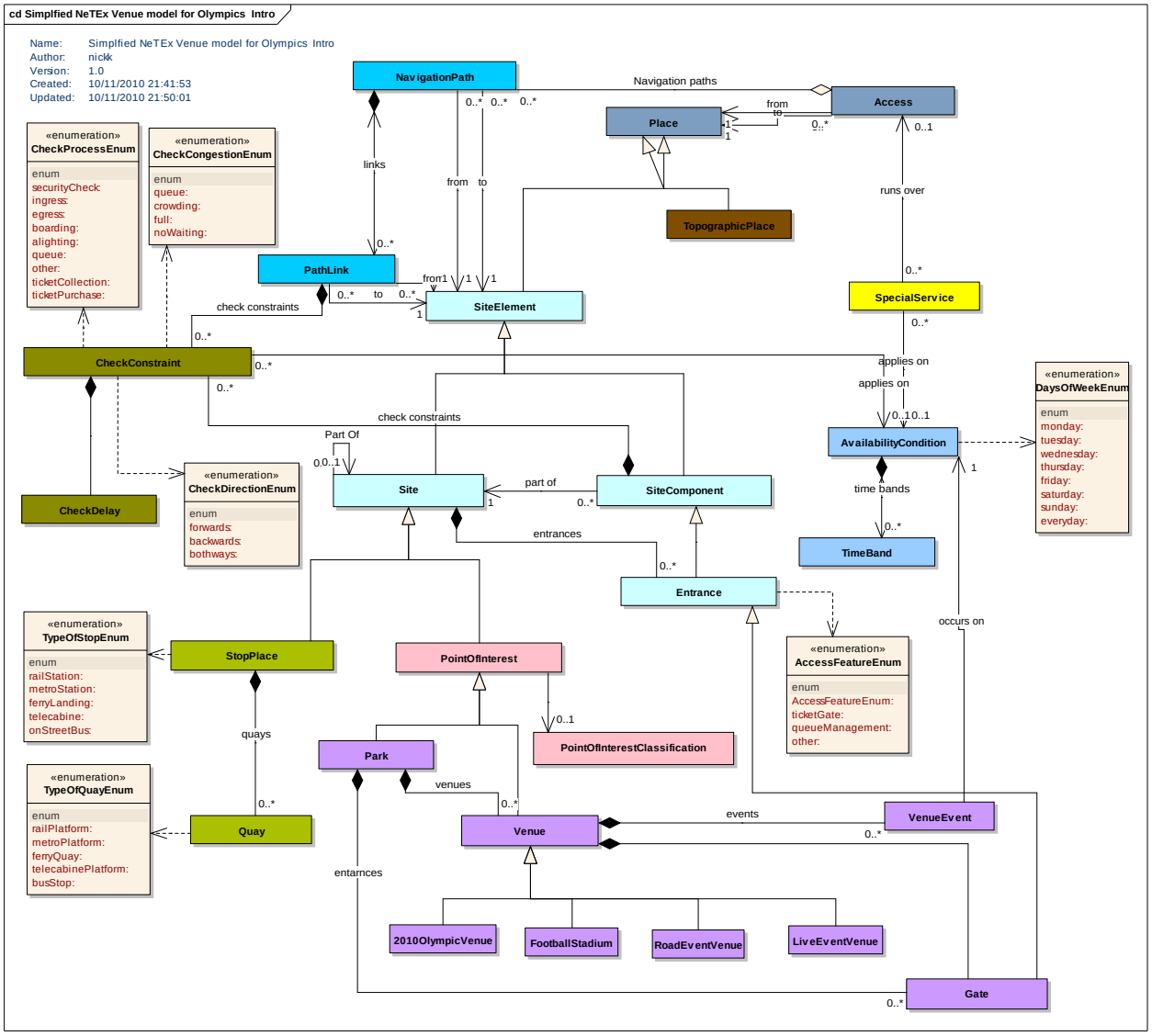

Figure 3 UML diagram of Simplified Site model used for 2012 Parks and Venus

6.2 Each of the elements corresponds to a table of data.

7 Point Of Interest

7.1 Parks and Venues are coded as ***PointOfInterest*** *instances*

- There should be a ***PointOfInterest*** for each Venue and each Park. It should have a name, description and location
- Venues will be within a park; for some parks they will contain only one venue for others more than one venue.
- Venus contained within a site should have a ***ParentPointOfInterestRef.***

- A ***PointsOfInterest*** will have a set of co-ordinates for where it is shown on a map.
- A venue will have days when it is operational for events and days when there are no events.
- A ***TypeOfPlaceRef*** can be used to indicate the naptan point logical type ("POI".
- Venues can be categorised for ~~Journey Planning~~as Olympic Events using the ~~***TypeOfPlaceRef***~~ ***PurposeofGroupingRef*** . There are five~~Four~~ types of Olymnpic venue: ~~main 2012~~ ~~*venue*~~*Park, Venue, football S~~s~~tadia~~*um, R*r*oadE* ~~e~~*vent and LiveEvent*~~live event~~.
- A venue may ~~have~~ have one or ~~a~~ more ***PointOfInterest Classification*** instances, E.g. *stadium, swimming, cycling*, live event etc.

7.2 Example XML for POI for Park

```
<PointOfInterest>
        <Id>napt:8100OPK</Id>
        <Name>London 2012 Olympic Park</Name>
        <Description>Queen Elizabeth II Olympic Park</Description>
        <PurposeOfGroupingRef ref="~~MainSite~~Park>
        <Centroid>
                <Location>
                        <Coordinates>184435 538185</Coordinates>
                </Location>
        </Centroid>
        <placeTypes>
                <TypeOfPlaceRef ref="napt:POI"/>>
        </placeTypes>
        <entrances>
                <PointOfInterestEntrance>
        .....
                </PointOfInterestEntrance>
        </entrances>
        <classifications>
                <PointOfInterestClassifcationRef ref="nptg:Poicat_OlympicPark"/>.
        </classifcations>

        <!-- ~~---- PATH LINK ----~~ -->
        <navigationPaths>
                <NavigationPath>
                        .....
                </NavigationPath>
        </navigationPaths>
</PointOfInterest>
```

7.3 Example XML for POI for Venue within Park

```
<PointOfInterest>
        <Id>napt:8100OPK_V1_STDM</Id>
        <Name>2012 Olympic Stadium</Name>
        <PurposeOfGroupingRef ref="Venue"/>.
        <Centroid>
        <Location>
                <Coordinates>184435 538185</Coordinates>
        </Centroid>
        <placeTypes>
```

```
                    <TypeOfPlaceRef ref="napt:POI"/>
                </placeTypes>
                <ParentSiteRef ref="napt:8100OPK"/>
                <entrances>
                    <PointOfInterestEntrance>
                ......
                    </PointOfInterestEntrance>
                </entrances>
        <classifications>
                    <PointOfInterestClassifcationRef ref="nptg:Poicat_OlympicStadium"/>.
        </classifcations>

        </PointOfInterest>
```

7.4

classifications	*Classification*	0:*	***PointOfInterestClassification*** for ***POI*** A Set of code s needs to be agreed
spaces	*PointOfInterestSpace*	**0:***	***PointOfInterestSpace*** instances inside ***POI***

~~7.4~~7.5 Table 1~~Table 1~~ shows the elements which should be populated for Parks and Venues – this is only a minimal subset of the possible ***PointOfInterest*** *attributes.*

Element Name	Element Type	Card-inality	Comment
Id	*PointOfInterestIdType*	0:1	Unique Identifier of ***PointOfInterest.*** Use *NaPTAN 8100* range.
Name	*MultilingualString*	0:1	Name of ***PointOfInterest***.
Description	*MultilingualString*	0:1	Description of ***PointOfInterest***.
PurposeOfGrouping	*PurposeOfGroupingRef*	0:1	***PurposeOfGrouping*** value “Venue” or “Park”.
Centroid	*Point*	0:1	Specifies point coordinates for centre of ***Zone.***
placeTypes	~~*TypeOfPointRef*~~*TypeOPlaceRef*	0:*	Type of ***Place***. “POI” – Used to indicate NaPTAN Logical point type
ShortName	*MultilingualString*	0:1	Short name for entity. E.g. Hockey
Topographic-PlaceRef	***TopographicPlaceRef***	0:1	Annotated Reference to Topographic Place within which ***Site*** resides. Use NptgLocalityCode
ParentSiteRef	*SiteRef*	0:1	Parent of Site – if venue. Id of Parent Park
entrances	*Entrance* | *EntranceRef*	0:*	Entrances to Site. See PointOfInterestEntrance
navigationPaths	*NavigationPath*	**0:***	***NavigationPath*** instances for ***Site.***
classifications	*Classification*	0:*	***PointOfInterestClassification*** for ***POI*** A Set of code s needs to be agreed
spaces	*PointOfInterestSpace*	**0:***	***PointOfInterestSpace*** instances inside ***POI***

Table 1 — PointOfInterest Subset elements

8 Point Of Interest Entrance

8.1 Each entrance to a Park or Venue is represented as a ***PointOfInterestEntrance***.

- A venue will have at least one entrance.
- A park may have more that one security gates.
- A security gate will have a queuing delay time associated with it for entrance to the park; this average queuing time may vary by time of day and day of the games. A ***CheckConstraintDelay*** is used to code the queuing time.
- A security gate will have an exit delay time associated with it for the time for a crowd to exit the park; this average queuing time may vary by time of day and day of the games. A ***CheckConstraintDelay*** is used to code the queuing time.
- A venue or park entrance may be only applicable for one or more of pedestrian, cycle and car[1]. This is specified by an ***AccessMode*** attribute on the ***Entrance.***
- A ***TypeOfPlaceRef*** can be used to indicate the naptan point logical type ("PIE").

8.2 Example XML for Point Of Interest Entrance

```
<PointOfInterestEntrance>
        <Id>napt:8100OPK_E1</Id>
        <Name>2012 Olympic Park Stratford Entrance</Name>
        <Centroid>
                <Location>
                        <Coordinates>184435 538185</Coordinates>
                </Location>
        </Centroid>
        <placeTypes>
                <TypeOfPlaceRef ref="napt:PIE"/>
        </placeTypes>
        <SiteRef ref="napt:8100OPK">..</SiteRef>
        <checkConstraints>
                <CheckConstraint>
                …….

                </CheckConstraint>
        </checkConstraints>
        <EntranceType>gate</EntranceType>
</PointOfInterestEntrance>
```

8.3 Table 2 shows the elements which should be populated for a ***PointOf-InterestEntrance*** – this is only a minimum subset of the possible attributes.

[1] For the games it is expected that car and cycle parking will be outside the park so all park entrances will be pedestrian.

Element Name	Element Type	Card-inality	Comment
Id	*PointOfInterest-EntranceIdType*	0:1	Unique Identifier of ***PointOfInterestEntrance.*** Use *NaPTAN* ***8100*** *range****.***
Name	*MultilingualString*	0:1	Name of ***PointOfInterestEntrance.***.
Description	*MultilingualString*	0:1	Description of ***PointOfInterestEntrance.***.
Centroid	*Point*	0:1	Specifies point coordinates for centre of ***PointOfInterestEntrance..***
placeTypes	~~*TypeOfPointRef*~~*TypeOf PlaceRef*	0:*	Type of ***Place***. "PIE" – Used to indicate NaPTAN Logical point type
SiteRef	*SiteRef*	0:1	Venue or Park that contains entrance
EntranceType	*TypeOfEntrance*	0:*	Gate etc
CheckConstraints	*CheckConstraint*	0:*	CheckConstraint describing delay

Table 2 — PointOfInterestEntrance Subset elements

9 NavigationPath

9.1 Links between elements are represented as ***NavigationPaths***

- There will be a ***NavigationPath*** between each Park Gate and each Venue. It species the From Place and Entrance and the To place and entrance
- The Navigation time will have average walking transit times specified as a ***TransferDuration***. It will also have a total distance.

9.2 Example XML for Navigation Path

```
<NavigationPath>
        <Id>napt:8100OPK_N3.7o_OPK-E1_to_V7-E1</Id>
        <Name>From Basketball to Stratford  entrance E3 </Name>
        <From>
                <PlaceRef ref="napt:8100OPK_V7_VELO"/>.
                <EntranceRef ref="napt:8100OPK_V7_VELO_E1"/>
        </From>
        <To>
                <PlaceRef ref="napt:8100OPK
                <EntranceRef ref="napt:8100OPK_E1"/>
        </To>
        <TransferDuration>
                <DefaultDuration>PT20M</DefaultDuration>
        <MobilityRestrictedTravellerDuration>PT30M</MobilityRestrictedTravellerDuration>
        </TransferDuration>
        <Distance>1750</Distance>
</NavigationPath>
```

9.3 Table 3 shows the elements which should be for a ***NavigationPath*** – this is only a minimal subset of the possible attributes.

Element Name	Element Type	Card-inality	Comment
Id	*NavigationPathIdType*	0:1	Unique Identifier of ***NavigationPath.*** Use *NaPTAN* ***8100*** range***.***
Name	*MultilingualString*	0:1	Name of ***NavigationPath e.***.
From	*PathLinkEnd*	0:1	Origin End of ***NavigationPath***.
To	*PathLinkEnd*	0:1	Destination End of ***NavigationPath***.
TransferDuration / DefaultDuration	*xsd:duration*	0:1	Time take to make transfer by default.
TransferDuration / MobilityRestricted-TravellerDuration	*xsd:duration*	0:1	Time take to make transfer by mobility restricted Traveller.
Distance	*DistanceType*	0:1	Length of NavigationPath – as traversed

Table 3 — NavigationPath Subset elements

10 Check Constraint

10.1 Processes that may cause delays are represented as ***CheckConstraints***.

- A ***CheckConstraint*** can be associated with an entrance to indicate a process such as security or congestion. The constraint may apply to one way or both way use.
- A ***CheckConstraintDelay*** is used to code the queuing time. Each delay may have its own ***AvailabilityCondition*** is used to specify when it applies. A ***MinimumLikelyDelay***, ***AverageDelay*** and Maximum likelyDelay can be specified

10.2 Example XML for Check Constraint

```
<CheckConstraint>
        <Id>napt:8100OPK_E4_C2</Id>
        <Order>0</Order>
        <Name>Entrance to Security gate - Going Out</Name>
        <CheckDirection>backwards</CheckDirection>
        <CheckProcess>egress</CheckProcess>
        <Congestion>queue</Congestion>
        <delays>
                <!-- == Delays on  Very Busy Days ==   -->
                <CheckConstraintDelay>
                        <Id>napt:8100OPK_E4_C2_Del_VB_d</Id>
                        <validityConditions>
                                <AvailabilityConditionRef ref="oda:Avl_Very_Busy_during"/>
                        </validityConditions>
                        <MinimumLikelyDelay>PT8M</MinimumLikelyDelay>
                        <AverageDelay>PT15M</AverageDelay>
                        <MaximumLikelyDelay>PT30M</MaximumLikelyDelay>
                </CheckConstraintDelay>
                <CheckConstraintDelay>
                        <Id>napt:8100OPK_E4_C2_Del_VB_e</Id>
                        <validityConditions>
```

```
                        <AvailabilityConditionRef ref="oda:Avl_Very_Busy_egress"/>
                    </validityConditions>
                    <MinimumLikelyDelay>PT10M</MinimumLikelyDelay>
                    <AverageDelay>PT20M</AverageDelay>
                    <MaximumLikelyDelay>PT30M</MaximumLikelyDelay>
                </CheckConstraintDelay>
                <CheckConstraintDelay>
                    <Id>napt:8100OPK_E4_C2_Del_VB_o</Id>
                    <validityConditions>
                        <AvailabilityConditionRef ref="oda:Avl_Very_Busy_Other"/>
                    </validityConditions>
                    <MinimumLikelyDelay>PT3M</MinimumLikelyDelay>
                    <AverageDelay>PT3M</AverageDelay>
                    <MaximumLikelyDelay>PT6M</MaximumLikelyDelay>
                </CheckConstraintDelay>
                ......
            </delays>
</CheckConstraint>
```

10.3 Table 4 shows the elements which should be populated for a ***Check-Constraint*** – this is only a minimal subset of the possible attributes.

Element Name	Element Type	Card-inality	Comment
Id	*CheckConstraintIdType*	0:1	Identifier of ***CheckConstraint***.
Name	*MultilingualString*	0:1	Name of CheckConstraint.
PlaceRef	*PlaceRef*	0:1	Entrance or place with which ***CheckConstraint*** is linked. If given by context may be omitted
validityConditions	*ValidityCondition*	0:*	ValidityConditions affecting CheckConstraint.
CheckDirection	*Enumeration*	0:1	Direction in which CheckConstraint applies.
CheckProcess	*Enumeration*	0:1	Type of Process associated with CheckConstraint.
Congestion	*Enumeration*	0:1	Congestion associated with CheckConstraint.
delays	*CheckConstraintDelay*	0:*	Delays affecting CheckConstraint.

Table 4 — Checkpoint Subset elements

10.4

CheckConstraintRef	*CheckConstraintRef*	0:1	Reference to CheckConstraint with which the delay is associated.
validityConditions	*ValidityCondition*	0:*	Validity conditions under which CheckConstraintDelay applies.
MinimumLikely-Delay	*xsd:duration*	0:1	Minimum likely delay associated with process and validity condition.
AverageDelay	*xsd:duration*	0:1	Average delay associated with process and validity condition.

MaximumLikely-Delay	*xsd:duration*	0:1	Maximum likely delay associated with process and validity condition.

10.410.5 Table 5Table 5 shows the elements which should be populated for a ***CheckConstraintDelay***– this is only a minimal subset of the possible attributes.

Element Name	Element Type	Card-inality	Comment
Id	*CheckConstraintIdType*	0:1	Identifier of ***CheckConstraint***.
Name	*MultilingualString*	0:1	Name of CheckConstraint.
CheckConstraintRef	*CheckConstraintRef*	0:1	Reference to CheckConstraint with which the delay is associated.
validityConditions	*ValidityCondition*	0:*	Validity conditions under which CheckConstraintDelay applies.
MinimumLikely-Delay	*xsd:duration*	0:1	Minimum likely delay associated with process and validity condition.
AverageDelay	*xsd:duration*	0:1	Average delay associated with process and validity condition.
MaximumLikely-Delay	*xsd:duration*	0:1	Maximum likely delay associated with process and validity condition.

Table 5 — Checkpoint Subset elements

11 Availability Condition

11.1 To specify when a ***CheckConstraint*** and/or delay applies, an ***Availability-Condition*** is used.

- An ***AvailabilityCondition*** can provide a set of named periods and ***Timeband*** instances
- The same availability can be used on multiple instances
- There are two different ways of coding availability conditions – either (i) with absolute calendar dates, or (ii) in terms of ***DayTypes*** (e.g. Monday to Friday) and a ***ServiceCalendar*** to assign day types to calendar dates. The former is simpler but may give rise to a large number of conditions. The latter allows the same conditions to be reused on many different days. A pragmatic choice should be made depending on the number of conditions and the extent to which they are shared between venues.

11.2 Example XML for ***AvailabilityCondition*** using condition defines with absolute date and TimeBand

```
<AvailabilityCondition>
        <Id>oda:Avl_VERY_BUSY_Other-B</Id>
        <FromDate>2011-08-17T00:00:00.0Z</FromDate>
        <ToDate>2011-08-17T24:00:00.0Z</ToDate>
        <timeBands>
                <Timeband>
                        <StartTime>09:30:00.0Z</StartTime>
                        <EndTime>11:30:00.0Z</EndTime>
                </Timeband>
        </timeBands>
</AvailabilityCondition>
```

11.3 Example XML for ***AvailabilityCondition*** using condition defines with day types date and reusable Timebands

```
<AvailabilityCondition>
        <Id>oda:Avl_Very_Busy_ingress</Id>
        <dayTypes>
                <DayTypeRef ref="oda:DT01_VERY_BUSY"/>
        </dayTypes>
        <timeBands>
                <TimebandRef ref="oda:TM01_ingress"/>
        </timeBands>
</AvailabilityCondition>
<AvailabilityCondition>
        <Id>oda:Avl_Very_Busy_during</Id>
        <dayTypes>
                <DayTypeRef ref="oda:DT01_VERY_BUSY"/>
        </dayTypes>
        <timeBands>
                <TimebandRef ref="oda:TM02_during"/>
        </timeBands>
```

12 Grouping elements for exchange

12.1 Data is exchanged as XML documents that conform to the NeTEx_Publication schema. The root element is a NeTEx ***PublicationDelivery*** element that states the time of creation and other metadata.

12.2 The ***PublicationDelivery*** may contain any type of NeTEx element under the dataObjects. Point of Interest and data elements should be grouped within a ***SiteFrame***.

12.3 Example XML wrapper for Venue data

```
<PublicationDelivery version="1.0" xsi:schemaLocation="http://www.netex.org.uk/netex
../../../Netex_publication.xsd"
xmlns="http://www.netex.org.uk/netex" xmlns:siri="http://www.siri.org.uk/siri"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:oda="http://www.2012Olympics.com/"   xmlns:nap="http://www.naptan.org.uk/"><
<PublicationTimestamp>2001-12-17T09:30:47.0Z</PublicationTimestamp>
<ParticipantRef>SYS001</ParticipantRef>
<PublicationRefreshInterval>PT5M0S</PublicationRefreshInterval>
        <dataObjects>
                <!-- ==== -->
                <SiteFra me>
                        <Id>oda:OPK_fr002</Id>
                        <Name>Olympic Park - Simple</Name>
                        <!-- ==== Resusable conditions used in site ====  -->
                        <contentValidityConditions>
                ..... Validity condition Data Here…
```

```
                    </contentValidityConditions>

                    <pointsOfInterest>
.....                   POI Data Here…
                    </pointsOfInterest>
                </SiteFrame>
.....
                <ServiceCalendar>
                    Day Type data  Here…
                </ServiceCalendar>
            </dataObjects>
</PublicationDelivery>
```

12.4 To exchange updates to the delays a separate document can be exchanged containing just the ***CheckConstraintDelay*** elements that have changed.

12.5 Example XML wrapper for updates to queue times.

```
<PublicationDelivery version="1.0" xsi:schemaLocation="http://www.netex.org.uk/netex ../../../Netex_publication.xsd"
xmlns="http://www.netex.org.uk/netex" xmlns:siri="http://www.siri.org.uk/siri"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:hde="http://www.halt.de/"
xmlns:mybus="http://www.mybus.fr/" xmlns:nap="http://www.naptan.org.uk/">
        <PublicationTimestamp>2001-12-17T09:30:47.0Z</PublicationTimestamp>
        <ParticipantRef>SYS001</ParticipantRef>
        <PublicationRequest version="1.0">
                <RequestTimestamp>2001-12-17T09:30:47.0Z</RequestTimestamp>
                <ParticipantRef>SYS002</ParticipantRef>
        </PublicationRequest>
        <PublicationRefreshInterval>PT5M0S</PublicationRefreshInterval>
        <Description>OPK basic example - Nav paths </Description>
        <dataObjects>
                <!-- == Delays for == CheckConstraint napt:8100OPK_E1_C1  -->
                <!-- == Delays on  Very Busy Days ==   -->
                <CheckConstraintDelay>
                        <Id>napt:8100OPK_E1_C1_Del_VB_i</Id>
                        <CheckConstraintRef ref="napt:8100OPK_E1_C1"/>
                        <validityConditions>
                                <AvailabilityConditionRef ref="oda:Avl_Very_Busy_ingress"/>
                        </validityConditions>
                        <MinimumLikelyDelay>PT10M</MinimumLikelyDelay>
                        <AverageDelay>PT40M</AverageDelay>
                        <MaximumLikelyDelay>PT80M</MaximumLikelyDelay>
                </CheckConstraintDelay>
                <CheckConstraintDelay>
                        <Id>napt:8100OPK_E1_C1_Del_VB_d</Id>
                        <CheckConstraintRef ref="napt:8100OPK_E1_C1"/>
                        <validityConditions>
                                <AvailabilityConditionRef ref="oda:Avl_Very_Busy_during"/>
                        </validityConditions>
                        <MinimumLikelyDelay>PT8M</MinimumLikelyDelay>
                        <AverageDelay>PT15M</AverageDelay>
                        <MaximumLikelyDelay>PT30M</MaximumLikelyDelay>
                </CheckConstraintDelay>
</dataObjects>

        <PointOfInterest>
                <Id>napt:8100OPK_V1_STDM</Id>
                <Name>2012 Olympic Stadium</Name>
                <PurposeOfGroupingRef ref="Venue"/>.
                <Centroid>
                <Location>
                        <Coordinates>184435 538185</Coordinates>
                </Centroid>
                <placeTypes>
                        <TypeOfPlaceRef ref="napt:POI"/>
```

```
                </placeTypes>
                <ParentSiteRef ref="napt:8100OPK"/>
                <entrances>
                        <PointOfInterestEntrance>
                ......
                        </PointOfInterestEntrance>
                </entrances>
        </PointOfInterest>
```

12.6 All entities should have basic metadata attributes: ***DataSourceRef*** (ODA) ***creation*** *Date* and **change** date and modification status. These have been omitted from the above examples for clarity

12.7 Example XML for change attributes.

```
        <PointOfInterest created="2010-10-05T10:52:25" changed="2010-10-05T10:52:25" modification="revise
                <Id>napt:8100OPK_V1_STDM</Id>
                <Name>2012 Olympic Stadium</Name>
                <PurposeOfGroupingRef ref="Venue"/>.
……
                </entrances>
        </PointOfInterest>
```

12.8 Table 5 shows basic change attributes.

Attribute Name	Attribute Type	Card	Comment
dataSourceRef	*DataSourceIdType*	*0:1*	Source of data “ODA”
created	*xsd:dateTime*	*0:1*	Date entity was first created.
changed	*xsd:dateTime*	*0:1*	Date entity or version was last changed.
modification	*Modification-Enumeration: new | revise | delete*	*0:1*	Nature of last modification; new, revise, delete (default is new).

Table 6 — Version attributes

13 A NaPTAN class for venues

13.1 The elements will be assigned identifiers from the NaPTAN code range, allowing them to be used as origin and destination points in the NaPTAN data set. All Olympic venues will be assigned from the range 8100:

13.2 Elements can also be given a NaPTAN point type. This can he stated on the ***TypeOfPlaceRef*** attribute

Type	Code	Description
Entrance	PIE	The entrance to a point of interest – would include gates to the Olympic park and the entrance to an individual stadium. This is the point that links the POI with the public transport and roads network.

Type	Code	Description
Access Area	POI	This would include intermediate concourses, ticket halls, that can be taken to represent the venue as a whole
End Area	PSP	An end point that the user is going to for the event at the venue , e.g. auditorium, terrace, grandstand which would be relevant for entrance aware navigation into a large venue

Short Name *MultilingualString* 0:1 Short Name of ***PointOfInterestClassification***

Table 7~~3~~ — PointOfInterestClassification elements

14 PointOfInterestClassification

14.1 POIs are classified using a ***PointOfInterestClassification***

- There will be a Classification for each type of sport.
- A venue or Park may have more than one classification.

14.2 Example XML for ***PointOfInterestClassification***

```
<PointOfInterestClassification>
    <Id>nptg:Poicat_Sports_Basketball</Id>
    <Name>Basketball Arena </Name>
    <ShortName>Basketball </ShortName>
</PointOfInterestClassification>
```

14.3 Table 3 shows the elements which should be for a ***PointOfInterest-Classification*** – this is only a minimal subset of the possible attributes.

Element Name	Element Type	Card-inality	Comment
Id	*PointOfInterest-ClassificationIdType*	0:1	Unique Identifier of ***PointOfInterestClassification.*** Use *NaPTAN*
Name	*MultilingualString*	0:1	Name of ***PointOfInterestClassification e.***